

Identity Capital and Graduate Employment

**An investigation into how access to various forms of identity
capital relates to graduate employment**

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ABSTRACT

Students at higher education institutions expect that their investment in education will be rewarded through positive employment outcomes. The dearth of research into graduates' personal circumstances which contribute to whether these expectations translate into reality was the starting point for this PhD thesis. Specifically, the thesis considered the role of identity development for success in the employment search. Erikson's and Arnett's theories of identity development and Côté's identity capital model were used as the theoretical basis to develop the Identity Capital Model of Graduate Employment (ICMGE). Erikson and Arnett proposed that gaining meaningful employment is a crucial task in an individual's development trajectory when moving from adolescence into adulthood. Côté's model explains under what condition this transition is likely to be successful: Individuals with greater access to resources, both tangible and intangible, are more agentic and thus in a better position to deal with identity formation challenges. The ICMGE thus proposed that graduates with more intangible identity capital, i.e. greater agentic personality, and greater access to tangible identity resources in the form of financial, human, social and cultural capital are more employable, which reflected in a greater chance of finding employment, a shorter time to find employment and higher quality employment. Given that in the South African context historically members of different racial and gender groups had unequal access to employment opportunities for which current employment legislation seeks to provide redress, race and gender were included as additional predictors of graduate employment. To test the ICMGE empirically, students' identity capital, race and gender were assessed via quantitative surveys, with data collected from $N = 872$ students in their final year of study at different higher education institutions in the Western Cape Province of South Africa. A year later, $N = 508$ of these participants provided data about their current employment situation in telephonic interviews. Contrary to expectations, not all forms of identity capital were related to one another. The strongest correlations emerged between financial and human capital, with weaker correlations with cultural capital. Social and psychological capital generally did not correlate significantly with other forms of identity capital. The level of identity capital differed by race, but no gender differences emerged. The ICMGE successfully predicted employment amongst 81.9% of the respondents. However, only race and cultural capital, in the form of type of secondary school and type of tertiary institution attended, and home language explained unique variance in the probability of gaining employment. Those who had attended former Model C or private schools, higher status tertiary institutions, were English speakers, and self-identified as white or coloured had a greater probability of gaining employment. Greater social capital, measured by the number of extra-curricular activities participated in, was related to a lower probability of being employed. It is likely though that the indicator used for social capital was not appropriate, given that close to half of the

employed respondents indicated having secured employment through social contacts. The quality of employment obtained was mostly predicted by race and agentic personality. Those who were more agentic in their approach to life, and those who identified as either white or coloured, had obtained higher quality employment. Financial capital and home language were the most relevant predictors of the time taken to gain employment. Those with greater financial capital and English or Afrikaans speakers spent longer looking for employment. Academic grades had little relevance in predicting whether or not graduates obtained employment. The study adds new knowledge to the graduate employability literature in that it shows that a theoretically derived graduate employability model can be applied to real-world conditions by predicting actual employment rather than a graduate's employment potential. The study also demonstrated the value of considering graduates' identity development and access to identity capital when considering their chances to secure employment, and in particular the quality of this employment. The ICMGE model only predicted small amounts of the variance in the employment variables, however. It is thus recommended that future research make use of instruments that are more sensitive to the intricacies of the different types of capital in larger and more representative samples.

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“Educational qualifications never function perfectly as currency. They are never entirely separable from their holders: their value rises in proportion to the value of their bearer, especially in the least rigid areas of the social structure.”
(Bourdieu, 1986, p.258)



(Zapiro, 2019)

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List of Abbreviations

CCFOs	Critical cross-field outcomes
CHE	Council on Higher Education
HE	Higher Education
HEI	Higher Education Institution
ICMGE	Identity Capital Model of Graduate Employment
LOC	Locus of ControlHigher Education
SA	South Africa

CHAPTER ONE

Rationale for Study and Structure of Thesis

1.1 Introduction

South African (SA) Higher Education Institutions (HEIs) are under increasing pressure to produce employable graduates (Chetty, 2012; Clapper, 2012; Griesel & Parker, 2009), however available data suggests that graduates struggle to find employment in many instances (Bhorat, 2004; Pauw, Oosthuizen, & Van der Westhuizen, 2008; SAGDA, 2012). Yet, the most recent SA research on graduate employability generally focusses on the development of employability scales (Bezuidenhout, 2011; Coetzee, 2007, 2010), measuring the relationship between students' self-reported data of employability and other psychological constructs (e.g. Coetzee & Bergh, 2008; Coetzee & Schreuder, 2011; Ismail, 2015; Symington, 2012), students' perceptions of the impact of work-integrated-learning on employability (Taylor & Govender, 2017) and the assessment of employer satisfaction with graduates (Griesel & Parker, 2009). There are two key limitations in this line of research (i) the above studies do not examine whether employability in fact relates to gaining actual employment, and (ii) previous research has not considered how students negotiate their identity development and how this relates to the degree to which they become employable.

The majority of first-time students are in late adolescence, where the predominant task, according to Erikson (1968), is ego identity formation which encompasses a broad range of developmental challenges. According to Côté (1996, 2002, 2005), access to various sources of identity capital enables adolescents to more successfully negotiate these challenges, and in turn, provides the foundation for them to become productive members of society (Erikson, 1968). Côté (1996, 1997a, 2002, 2005) distinguishes between intangible (psychological resources) and tangible (e.g. financial, social and educational capital) sources of identity capital. This is of particular significance within the SA context, where an increasing number of students from less privileged backgrounds are gaining access to HEIs (Clapper, 2012; Makhanya, 2012). They were consequently likely to have less access to relevant identity capital resources that contribute towards their identity development and consequently to their employability (Bernstein & Osman, 2012). Given the context, there is value in exploring how the

broad range of identity capital resources contributes to student employability and consequent graduate employment in order to guide HEIs on how best to prepare their students for success in the job market.

1.3 Setting the scene

1.3.1 Graduate employment and employability

A distinction can be made between the employability of graduates in terms of possessing relevant or desired skills and abilities and the attainment of actual employment. The foundation of graduate employability is that students leaving HEIs have the potential to succeed in employment. Employability includes specific job skills demonstrated through applying a combination of attributes and beliefs, reasoning abilities, critical thought and reflective thinking that enable students to deal with complex and ambiguous employment environments (Yorke, 2006).

South Africa (SA) is characterised by vast inequalities (Bhorat, 2015). Although Higher Education (HE) is proffered as a method of alleviating these, many are mirrored in the HE context (CHE, 2016, 2017). Possessing greater resources increases the probability of accessing HE (CHE, 2017), with those in HE differing in their ability to gain advantage from this experience as a result of the resources they have access to (ADCORP, 2012; Breier, 2017, July 27). Similarly, graduates vary in their potential to gain both employment in general and graduate quality employment (Statistics SA, 2015a; van Broekhuizen & van der Berg, 2013) as a result of differences in their personal attributes and resources. Actual employment is influenced by a variety of factors, many beyond the graduates' control, such as the country's overall economic climate. However, regardless of macro-environmental factors, it is always more difficult for those with less resources to gain quality employment. This is significant as students anticipate that their qualifications will lead to quality employment (Bezuidenhout, 2011; Coetzee, 2012; Dacre Pool & Sewell, 2007; Glover *et al.*, 2002).

Currently, graduate employability models focus on competencies or traits that graduates should possess dealing with employability in an insular manner ignoring the graduates' broader psychosocial context. These models also lack a sound theoretical foundation in many instances and are often not empirically tested. Model validation studies tend to be based on subjective criteria such as stakeholder perceptions or correlations with other psychological constructs as opposed to predicting actual employment. The fact that employability forms part of the larger developmental task is also neglected (see Section 2.4).

This thesis proposes the Identity Capital Model of Graduate Employment (ICMGE) as an alternative approach to understanding graduate employment and contends that graduate employability comprises an aspect of the larger task of ego identity development occurring during emerging adulthood. The model is based on Côté's (1996, 2002, 2005) Identity Capital Model, predicting that graduates who possess greater tangible and intangible identity capital are more employable and consequently more likely to obtain employment, despite the challenges presented by late modern societies and the limitations of the labour market.

1.3.2 Theoretical foundation

Erik Erikson's (1968, 1980, 1997) psycho-social model of personality development postulates that personality development progresses through eight pre-determined stages. Each stage is mastered if an identity crisis typical for the stage is mastered by the individual. Graduates find themselves within Erikson's (1968, 1980; Erikson & Erikson, 1997) developmental phase of *identity versus identity confusion* in terms of their ego identity development where gaining employment is a critical task. Identity formation occurs in post-modern society with a broader range of choices and reduced support for the individual, which makes it more difficult (Côté, 2005). Arnett (2000, 2007a, 2015) contends that individuals in the modern world are often in their late 20s before taking on a full range of adult responsibilities. He thus supplemented the work of Erikson (1968, 1980; Erikson & Erikson, 1997) with the concept of *emerging adulthood*.

An individual who has mastered this stage via identity achievement has committed to an occupation and ideology, is making a vocational choice and developing a personal belief system. Individuals who have not resolved the stage are characterised by identity confusion, which manifests itself in a lack of commitment (Erikson, 1968, 1980; Erikson & Erikson, 1997). The formation of ego-identity in late adolescence/emerging adulthood, when most students enter HE, is, therefore, an essential process in the formation of personality that marks the end of childhood and the beginning of adulthood. A key aspect of ego-identity development is selecting an appropriate occupation and gaining access to the world of work through possessing the necessary employability attributes.

James Côté's (1996, 2002, 2005) identity capital model builds on Erikson's fifth stage of *identity vs identity confusion*, which involves the formation of an ego-identity. Côté (1996, 2002, 2006) notes that agency of the individual relates to the degree of freedom and choice available in resolving their identity crisis. The resolution of the identity crisis is aided by the availability of various identity capital resources. Identity capital refers to the assets and resources that enable the individual to resolve the adolescent identity crisis (Côté, 1996, 2005). Identity capital resources interact with one another and

vary in their degree of tangibility (Côté, 1996, 1997a). Tangible resources include financial resources, educational credentials, socially rewarded competencies (human capital), social connections (social capital), speech patterns (linguistic capital) and parental social status (cultural capital) (Côté, 1996, 1997a, 2002, 2005). A number of these sources of tangible capital are interrelated, with the common factor being that they serve as passports into a variety of social and institutional settings. Tangible identity capital is exchanged through emotional, symbolic or pragmatic interactions. There is some evidence that individuals from more privileged backgrounds have access to greater amounts thereof (Côté, 1996; 1997a).

Intangible sources of identity capital are described by Côté (1997a) as psychosocial vitalities and capacities including the exploration of commitments, ego strength, internal locus of control (LOC), self-monitoring, self-esteem, a sense of purpose in life, social perspective-taking, critical thinking abilities and moral reasoning abilities. The different intangible sources of identity capital provide the individual with the means to understand and negotiate the variety of social, occupational and personal opportunities and obstacles encountered in adult life (Côté, 1997a). Identity capital then refers to an individuals' net assets at a given point in time, in terms of "who they are" providing them with agency in resolving their identity crisis (Côté, 1997a, p. 578).

1.4 Goals of thesis

This thesis aimed to operationalise and empirically test the ICMGE. The goal was to examine whether the ICMGE predicts graduate employment and the quality thereof. It sought to expand the graduate employability literature by considering different forms identity capital as predictors i.e. whether graduates find employment, as opposed to the current approaches which examine the so-called 'propensity to be employed'.

This thesis also aimed to examine Côté's (1996, 1997a, 2002, 2005) assertion that the different sources of identity capital correlate positively with each other. Specifically, the relationships between the different forms of intangible capital were of interest, i.e. whether possessing more financial capital correlated with greater human capital in the form of skills and qualifications, whether greater social capital in the form of more extensive social connections and correlated with cultural capital in having a greater understanding of the academic world and work environments. The thesis also examined the correlation between the different forms of tangible and intangible identity capital in the form of the individuals agentic personality scores.

The key questions that this study aimed to answer are:

- To what degree do tangible sources of identity capital correlate positively with sources of intangible identity capital?
- How race and gender correlate with the different sources of identity capital?
- Is there a positive correlation between experiential learning employers' perceptions of students' intangible identity capital and the measures of student intangible identity capital?
- What is the overlap between how experiential learning employers perceive students' intangible identity capital and student self-ratings?
- To what degree does access to tangible and intangible sources of identity capital predict graduate employment?
- To what degree does access to tangible and intangible sources of identity capital predict variances in the quality of employment obtained by graduates.

1.5 Format of this thesis

After providing the background to this thesis in this chapter, Chapters Two and Three present a review of the literature as the theoretical foundation for this thesis. Chapter Two reviews the theoretical origins and history of graduate employability and employment as contested topics in the broader South African (SA) psycho-social context. Shortcomings of the existing perspectives are discussed, and the identity capital perspective of graduate employability and employment are then presented as an alternative.

Chapter Three provides the theoretical foundations by reviewing Erik Erikson's (1950; 1968; Erikson & Erikson, 1997) ego identity theory and Jeffrey Arnett's (2000, 2007a, 2015) concept of emerging adulthood, which place the graduate within a developmental trajectory within which gaining employment is a critical task. Côté's (1989, 1997, 2002, 2016) identity capital model as a framework to understand the resources contributing to ego-identity development, agency and accompanying employment is then examined. The chapter concludes with an overview of the role of identity capital resources in facilitating graduate employment.

Chapter Four outlines the methods used in the two studies employed in this thesis to answer the research questions. The underlying ontological and epistemological assumptions are presented, together with an overview of the research strategies and designs. Chapter Five then presents the empirical results derived from the collected data to answer the research questions.

Chapter Six, the final chapter, discusses the results and presents recommendations concerning the appropriateness of the identity capital model of graduate employability in predicting both graduate employment and the quality of employment. Finally, recommendations are made for the further development of the model, practical implications of the results of the study, as well as suggestions future research relating to graduate employment.

CHAPTER TWO

Graduate employability

2.1 Higher education in the South African context

“Educational qualifications never function perfectly as currency. They are never entirely separable from their holders: their value rises in proportion to the value of their bearer, especially in the least rigid areas of the social structure.”

(Bourdieu, 1986, p.258)

This quotation above embodies the key issue that this study grapples with, namely graduate employment in the South African (SA) context. It is a contested topic with many factors believed to impact thereon including, but not limited to, type of qualification, institution, social status, race and type of school attended (Altbeker & Storme, 2013; van der Berg & Broekhuizen, 2012). The nature and quality of graduate employability thus cannot be examined outside the broader psycho-social context in which it occurs.

In order to provide an understanding of the issues relating to graduate employability and employment this chapter first examines the SA HE context focussing on the inequalities encountered therein and the impact of these on the employment of graduates. The origins and history of the employability concept are briefly reviewed, followed by an examination of the work that has taken place on graduate employability over the last 20 years. The key argument that this review makes is that the current approaches neglect the graduate’s broader psychosocial context in that they are emerging adults for whom employability is part of a larger developmental task. These approaches also generally lack a comprehensive theoretical foundation and are not validated against real world data. This then culminates in the presentation of the Identity Capital Model of Graduate Employability that addresses these shortcomings.

This literature review was written over a period of seven years (2011-2018), and exhaustive searches were undertaken in order to obtain relevant and current literature. In this regard Google Scholar, EMERALD, ERIC and SABINET, amongst others, were consulted.

2.2 Higher education in the South African context

The expanded SA HE system is stratified among traditional universities, comprehensive universities, universities of technology and privately-owned universities. This has had the result that graduates from different institutions and backgrounds are not necessarily in the same position to reap the full benefits of taking part in HE. Consequently, the current system (post-1994) may continue the structural inequalities it was meant to reduce (Tomlinson, 2012). The SA HE landscape comprises 26 public HEIs and several private HEIs, although the private HEIs serve less than 10% of the country's student population (Walker & Fongwa, 2017). The 26 public HEIs include 11 traditional universities focussing on research and a combination of professional and discipline-based qualifications; six Universities of Technology offering technological, vocational and career-based qualifications; and nine comprehensive universities offering both types of qualifications (including one distance education institution). In 2015 (the last year for which data was available) there were 985 212 students registered at public HEIs, of which 347 931 were registered at traditional universities, 337 944 at the distance education institution, 160 332 at Universities of Technology and 139 005 at comprehensive universities (CHE, 2017).

2.2.1 The broader purposes of HEIs

Shapiro (2005) argues that universities in the modern world exist to serve a broader public service and essentially to create a better world. This notion is supported by the SA HE Act (101 of 1997) which specifies several aims for public HEIs including redressing past discrimination, promoting democratic values, pursuing academic excellence and responding to SA's human resource, economic and development needs, including the broader community's needs. Mosia (in CHE, 2016) argues that the core role of HE in SA is to contribute towards the transformation, renewal and modernisation of the country by helping to stimulate economic growth and reduce inequality and poverty. Essentially these expressed goals relate to the development of both freedom and agency through HE. To this end, Dreze and Sen (1989) outlined that education contributes to freedom and agency in that education has (i) an intrinsic value in itself; (ii) an instrumental personal role in creating human capital and facilitating economic prospects; (iii) an instrumental social role in growing civic reasoning skills in making informed and critical decisions; (iv) an instrumental process role in building social capital and building experiences; and (v) an empowerment and distributive role in helping the individual to organise politically and challenge oppression on various social levels. As Shapiro (2005, p.8) puts it, "In contemporary times, a university education is almost a requirement of a fully expressed citizenship". A number of these goals sit at the centre of this thesis which examines how different forms of capital possessed by students contribute to their employment (economic prospects).

In the SA HE context, the current dominant discourses include issues such as the quality of qualifications, equity, redress of past wrongs and economic development (Walker & Fongwa, 2017). Whereas HE in SA has several broad and inclusive goals aimed at enhancing individual agency and concurrently creating a fairer and more equal and democratic society, employment and employability are largely neglected. This is evident in Council on HE (CHE) “VitalStats” (CHE, 2013, 2017) in which no reference is made to student employability or employment. Knight and Yorke (2004) argue that, given that there is not a formal definition of employability within SA’s HE system, many academic staff might regard employability as an intrusion on what academic life should comprise in that is believed to have a higher purpose. This is further exemplified by the fact that the CHE has not commissioned any of the studies which have attempted to explain graduate employability in the SA context. This conflicts with the general expectation among students that their investment into HE will lead to employment (Walker & Fongwa, (2017).

Many of the broader purposes of HE are frustrated by the inequalities evidenced in the broader SA HE context.

2.2.2 Inequalities in the South African higher education context

SA’s stratified HE system mirrors the history of racial and economic inequality in broader society. For example, in 2015, black people constituted 80% of SA’s population and 70% of the student population (up from 65% in 2010) whereas white individuals (who make up 8% of SA’s population) comprise 17% of students (CHE, 2017). However, a more accurate picture of inequality in the system is gained when examining student participation rates relative to the section of the SA population of university-going age by dividing overall graduate enrolments by all persons aged between 20 and 24 in the total population (Breier, 2017, July 27). Overall participation rates in developed countries vary between 70% and 80% and the average stands at 37.5% for BRICS (Brazil, Russia, India, China and SA) countries, SA lags at around 19% (CHE, 2016). This rate differs substantially for white individuals the participation rate was 53% in 2015 (57% in 2010), for black Africans 16% (14%), for Coloured individuals 15% (15%) and for Indians 49% (46%) (CHE, 2017).

Academic success rates defined by the CHE (2017, p. ii) as “...the total number of courses passed by students in a given academic year” also follows racial lines with 85% (82% in 2010) of white students passing the courses they were enrolled for in 2015, as compared to 80% (74% in 2010) of Indian students, 79% (75% in 2010) of Coloured students, and 76% (71% in 2010) of African students. Race also influences the type of institution attended with African students comprising 86% (80% in 2010) of University of Technology and comprehensive university populations 2015, whereas white students comprised 5% (8% in 2010) and 8% (12% in 2010) respectively. At the same time, the racial

demographics of traditional universities looked quite different with 57% (54% in 2010) of the student population comprising African persons and 26% (29% in 2010) white persons. The data illustrates that white and Indian persons in SA have a significantly greater probability of participating in HE than their Black African counterparts, with white persons being more likely to attend a traditional university and have a better prospect of passing their courses.

The HE context reflects the broader economic inequalities of SA society. It is one of the least equal societies in the world, with a Gini Coefficient, a commonly used measure of income distribution, ranging between 0.66 and 0.70 depending on the source (0 = a completely equal society and 1 a completely unequal society) (Bhorat, 2015). Economic inequality tends to run along racial lines as the allocation of assets by way of human capital, financial capital and property ownership patterns post-apartheid, are still skewed according to pre-apartheid endowments (Bhorat, 2015). This inequality is perpetuated in the HE context with poorer individuals being less likely to access HE due to reduced government funding [e.g. R27 900 (U.S. \$2,288) student in 1987 to R14 700 (U.S. \$1,200) per student in 2009 in real terms] (Breier, 2017, July 27), and the probability that they will have attended poorer quality schools negatively influencing their entrance routes into HE (Walker & Fongwa, 2017).

In the case of gender, women are somewhat over-represented in the HE system constituting around 59% of the student population compared with 51% of the national population. A similar picture emerges when examining participation rates in HE for women, which stand at 22% as opposed to 15% for men. Females are also more likely to pass their courses (80% in 2015 vs 76% in 2010) than their male counterparts (75% in 2015 vs 71% in 2010) (CHE, 2017). Women are thus more likely to attend university and to succeed in their studies.

2.2.3 Graduate employment in the South African higher education context

A key challenge to SA's transformation remains the unemployment of youth, with 52.2% of people between 15 and 24 being unemployed and 35.5% of the possible workforce between 25 and 34 also being unemployed (Mhlanga, 2018). This is the age group in which the majority of graduates are found (CHE, 2017). Statistics SA (2019) reports that 29% (38.5% by expanded definition) of SA citizens are unemployed, this rate varies significantly between population groups, with black (43%) and coloured (29.2%) persons significantly more likely to be unemployed than those who identify themselves as either Indian (15.5%) or white (9.8%).

Whereas other countries (e.g. Australia, Canada, Colombia, Germany, Hungary, Malaysia, Singapore, Switzerland, the United Kingdom (UK) and the United States (US) have formal graduate tracking systems providing a clear picture of graduate employment, this is not the case in SA (Usher & Marcucci,

2012). In the SA context, graduate tracking has taken place on an ad-hoc basis. In one of these, Borat (2004) found that unemployment amongst white and black graduates had risen by 141% and 280% respectively between 1995 and 2002. Researchers in the University of Cape Town's (UCT's) Development Policy Research Unit (DPRU) noted an increase in the unemployment rate of individuals who graduated from a tertiary institution from 6.6% in 1995 to 9.7% in 2005, with 77% of those aged under 34 (DPRU, 2006). Similarly, Pauw, Oosthuizen, and Van der Westhuizen (2008) found that the unemployment rates for graduates had increased by 13% between 1995 and 2005. At the same time the SA Graduate Recruitment Association (SAGRA) (2012), in a survey of graduate employers, found that graduate employment opportunities increased between 2011 and 2012, with the median number of vacancies per company increasing from 23 to 25. However, opportunities varied significantly between different industries and business sectors. Similarly, Altbeker and Storme (2013) reported that 11 % of SA graduates between 20 and 29 were unemployed in 2012, which is significantly lower than the 25% average for the general population (Stats SA, 2015a).

Unlike international graduate tracking systems (Usher & Marcucci, 2012), the SA studies reviewed above did not focus on the quality and nature of graduate employment. An exception is the study by ADCORP (2012), which found that 64.6% of graduates holding a diploma found employment within 12 months of beginning to search, however Unitech found that up to 30% of graduates were unable to find jobs after they graduated (IOL News, 2006). The type of qualification also impacts on the prospect of gaining employment with 5.9% of the 1.1 million graduates in the SA population with a bachelors or higher degree in 2012 being unemployed. The figure for unemployed diplomates was around 16% (van Broekhuizen & van der Berg, 2013). Types of employment also vary considerably, with the SA Graduate Development Association (SAGDA, 2012) reporting that only 7.8% of their members were in formal employment, 26.8% in internships, and 14.9% had started a business.

It is thus clear that research on graduate employability in SA is not conclusive with the majority of studies failing to adequately define graduates, factors contributing to student success and employment outcomes (Walker & Fongwa, 2017). The different SA studies purporting to measure graduate employment vary dramatically in how they define graduates and often failed to distinguish between students completing a post-school qualification, such as a certificate or diploma, and those who held a degree (Van der Bergh & Broekhuizen, 2012). Van der Bergh and Broekhuizen (2012) further note that studies have often made use of dated or unrepresentative data. It is evident that students with a HE qualification from a university stand a significantly greater probability of gaining employment than the rest of the SA population (Branson, Leibbrandt, & Zuze, 2009).

Although the SA HE system has the potential to empower its participants to become fully functioning citizens (Dreze & Sen, 1989) and aims to do so (SA HE Act, 101 of 1997) the data presented above highlights that there are many inequalities, both, in terms of access and outcomes. Whereas employability as an outcome of HE is a key requirement for individuals to become fully functioning citizens, these are not necessarily key priorities within the SA HE system. Although graduates are gaining employment more frequently than the general population, black graduates under 35 are less likely to be employed than their white or older counterparts (Altbeker & Storme, 2013; Borat, 2004).

Both, employment and employability remain contested constructs on a theoretical and policy level (e.g. Côté & Levine, 2016; Giddens, 1995; Mc Quaid, Green & Danson, 2005; Speight, Lackovic & Cooker, 2013; Tholen, 2013). The conceptualisations and models with their accompanying definitions, which have attempted to explain and predict graduate employability and employment, are examined in depth in the following section in order to establish the theoretical framework and model proposed in this thesis.

2.3 The history of employability

The concept of employability was first used by William Beveridge in 1909, referring to underemployed individuals in newly industrialised Britain (Mansfield, 2001). Historically, employability research and practice predominantly focussed on the reintegration of the unemployed or the selection of job applicants (Kinicki, 2006). The employability concept has changed over time (Marock, 2008) to reflect changing economic and political contexts (Brown, Hesketh & Williams, 2002; van Heijde, 2014). McQuaid and Lindsay (2013) noted that Gazier's (1999, 2001) work provides a useful overview of the development of the concept in the 20th century. Gazier (1999, 2001) identified seven operational uses of the concept, namely:

- (i) Dichotomic employability: Occurring in the US and the UK up to around 1950, employability distinguished between able-bodied workers and those in need of relief such as the aged or infirm (Gazier, 1999, 2001). This perspective has been criticised for not providing for any middle ground and failing to consider labour market conditions (Bezuidenhout, 2011).
- (ii) Socio-medico employability arose after World War II in Germany, the USA and the UK who were experiencing a deficiency of skilled workers. The focus was on the gap between the work requirements for employment and the physically, mentally or socially disabled. A scale was developed to measure the degree of employability, the administration of which was accompanied by actions to rectify identified inadequacies (Gazier, 1999, 2001)

- (iii) Manpower policy employability evolved from the socio-medico perspective and focused on the potential of the individual to become employed and how to stimulate this potential (Gazier, 1999, 2001). Promoting employability served a purely macroeconomic purpose with government focussing on improving attitudes towards employment (de Grip, van Loo & Sanders, 2004).
- (iv) Flow employability emerged within the French employability literature in the 1960's and focussed on examining on-demand within the labour market, the macro-economic level and the absorption rate of the economy for particular groups (Gazier, 1999, 2001).
- (v) Labour market performance employability emerged internationally during the global recession in the late 1970s and focussed on human capital, as skills and knowledge, and the relative value thereof to the labour market in the form of wages (de Grip *et al.*, 2004; Gazier, 1999, 2001). The conceptualisation was later extended to include knowledge related to the individual's possibilities, overall employment situation and position in the labour market (de Grip *et al.*, 2004).
- (vi) Initiative employability emerged in the human resource development (HRD) literature in the USA and Europe in the late 1980s. The focus was on the changing job market and the accompanying transferrable and flexible skills that were thought to facilitate the movement between jobs and roles. Employability was viewed as a "meta-characteristic" combining knowledge, skills and attitudes believed to determine the individuals' attractiveness to the labour market (de Grip *et al.*, 2004). The focus was on the individual and their responsibility in developing both skills and networks, in order to make this possible (McQuaid & Lindsay, 2013).
- (vii) Interactive employability also emerged internationally at the end of the 1980's sustaining the emphasis on individual initiative, but also taking cognisance of the fact that labour market opportunities restrict employment opportunities (Gazier, 1999, 2001). The significance of employer needs and differing market demands for labour are emphasised (McQuaid & Lindsay, 2013).

The perspectives reviewed by Gazier (1999, 2001) focus largely on employability as a general concept as it relates to all possible entrants into the labour market. In more recent times, there has been a greater emphasis on graduates as a cohort of employment seekers.

2.4 Contemporary theoretical perspectives on graduate employability

Graduate employability is a 'slippery concept' that is difficult to define with a lack of conceptual clarity evidenced in Section 2.3 above (also see Dacre Pool, Qualter & Sewell, 2014; Sewell & Dacre Pool, 2010). The employability concept has evolved as either a supply issue concerned with whether the individual meets the needs of the labour market, or as a demand issue as to whether the labour market has the capacity to absorb those seeking employment, or a combination of these (Gazier, 1999, 2001; McQuaid & Lindsay, 2013; Schmid, 2002). Tomlinson (2012) argued that the changing views of graduate employability align with the shifting dynamic between the labour market and HE, whereas Schmid (2002) criticised the dualism of the supply and demand question as largely ideological and not necessarily useful in either theory or practise, given that a multitude of factors contribute to employability.

The most important thinking on contemporary employability is summarised into seven approaches that have evolved over the last 20 years which are reviewed below. The ICMGE, which forms the foundation for this thesis, is then presented as an alternative that addresses a number of these shortcomings.

2.4.1 The labour market perspective of de Grip, van Loo, and Sanders

de Grip et al. 's (2004) Industry Employability Index focusses on the type of human capital required to be employable within the labour market. Employability is viewed as the interaction between industry supply and demand factors. The model examines the current workforce employability needs of different industry sectors, how societal developments impact on these, and the effectuation conditions that facilitate employability. This perspective has been used to examine the effects of skills obsolescence (de Grip, 2006), how over education contributes to career advancement in the formal and supplementary labour market (Dekker, de Grip & Heijke, 2004), and how perceived poor market returns discourage skills improvement among low-educated (Fouarge, Schils, & de Grip, 2013).

While de Grip et al. 's (2004) has not been applied to the graduate employability context, it is particularly relevant to understanding variances in graduate employability given that the different HE qualifications focus on diverse sectors within the economy.

2.4.2 The human capital perspective: Brown, Hesketh, and Williams

Brown et al.'s (2002) human capital perspective maintains that the conceptualisation of employability needs to go beyond de Grip et al. 's (2004) categorisation of individual skills and characteristics. Brown *et al.* (2002, p.11) defines employability as the "relative chances of finding and maintaining different

kinds of employment”, while the labour market is the mechanism that serves both to allocate and ration job opportunities. Employability comprises a relative dimension relating to the individuals’ probability of becoming employed based on how they compare with others in the job market, and an absolute dimension in terms of the available positions (Brown & Hesketh, 2004) with the consequence that this approach can also be classified as a graduate employability approach. Based on this model Brennan, Little and Shah’s (2002) found that individuals from less advantaged socio-economic backgrounds experienced systemic disadvantages in the labour market; while Brown and Hesketh’s (2004) found that some universities qualifications are more valuable for obtaining employment and that the UK’s labour market lacks the capacity to absorb the increased university outputs.

2.4.3 The employability skills perspective to graduate employability

The employability skills perspective identifies specific skills likely to make individuals desirable to potential employers (Bridgstock, 2009) and is thus a refinement of the human capital perspective. The language of skills comprises a set of universal terms facilitating communication between the graduate and significant others, in particular, employers (Holmes, 2001). Enhancing employability skills forms a considerable part of the current understanding of graduate employability (Jackson, 2016; Tomlinson, 2017) with the Dearing Report (Dearing, 1997) in the UK having a major impact in that it stressed the development of employability skills amongst graduates and alignment of university curricula with the needs of the economy. This has led to the development of a wide variety of employability skills in HE using terms such as personal, transferable, generic, core and key skills as well as capabilities, abilities and attributes (Allan, 2006).

HEIs still predominantly focus on generic skills such as communication, teamwork and self-management, which are widely considered to enhance graduate employability (Jackson, 2016). This is explicitly demonstrated in the SA context through the key role played by the list of critical cross-field outcomes (CCFOs) formulated by the South African Qualifications Authority (SAQA, 1997) which were taken on by HEIs and incorporated into their programmes. A plethora of studies have been conducted in the SA context focussing on skills, for example differences in graduate employability skills between the public and private sectors (Jonck & van der Walt, 2015), generic graduate skills at the Central University of Technology (Beyer, Wilkinson & Friedrich-Nel, 2010), graduate employability skills within the public sector (Jonck, 2017), perceptions of generic skills amongst potential graduates (Smith & Kruger, 2008), additional skills required by tourism graduates (Wakelin-Theron, 2015), incorporating soft skills into accounting curricula (De Villiers, 2010) and employability skills of analytical chemistry graduates (Nofemela, 2009). The only recent study in the SA context that compared some form of skills to actual employment outcomes is that of Casale and Posel (2011) who found that self-reported

English language proficiency was a major predictor of income for graduates. However, they qualified their findings, noting that “the existence of unobservable characteristics that affect both English language acquisition and earnings is a concern in this study” (Casale & Posel, 2011, p.390).

The fact that such a large number and variety of skill lists and frameworks exist is troublesome, given that these are seldom based upon sound research (Holmes, 2013). Even more problematic is the fact that where research has taken place, it has failed to find statistically significant relationships between HE skills development initiatives and the increased probability of employment (Cranmer, 2006; Hinchliffe & Jolly, 2010; Jonck & Van der Walt, 2015). Furthermore the skills perspective is restricted as it fails to capture the complexity of graduate employability (Clark, Zukas & Lent, 2011; Dacre Pool, 2016; Jackson, 2016), ignores the context in which skills are exercised (Tomlinson, 2012), assumes skills in the HE context are equal to those required in the employment context (Holmes, 2001), and assumes that the performance of skills is measurable and observable (Holmes, 2001, 2015). It is also notable that some academics do not view their role as being to provide employment skills (Chetty, 2012).

2.4.4 The attributes and capabilities perspective of graduate employability

The attributes and capabilities perspective broadens the skills perspective to include psychological and psycho-social attributes that enhance the employability of the individual. Harvey (1999, p.4) defines graduate attributes as “...the propensity of the graduate to exhibit attributes that employers anticipate will be necessary for the future effective functioning of their organisation”. Implicit in this definition is that employability relates to the individual seeking work, employers are aware of what essential attributes comprise and what future requirements comprise, and that employers possesses methods to assess these attributes.

The eight models reviewed below are the most prominent in the attributes and capabilities literature, the sheer number indicating the prominence that this perspective holds within the current employability discourse and debate.

2.4.4.1 Hillage and Pollard’s capability perspective

Hillage and Pollard (1998, p.2) define employability as “... the capability to move self-sufficiently within the labour market to realise potential through sustainable employment” is one of the most widely cited definitions within the employability literature with over 15000 hits on Google Scholar overall and in excess of 1100 references since the beginning of 2017. They identified four components of individual employability in their capability perspective, namely assets comprising knowledge, skills and attitudes possessed by the individual, deployment abilities in the form of career management and job

search skills, and the ability to act strategically by being aware of labour market developments and being realistic about opportunities, and the labour market context (Hillage & Pollard, 1998). This is a supply perspective given that the individual is responsible for boosting the different components of their employability in order to improve their employment opportunities.

Significant to Hillage and Pollard's (1998) approach is the view that the individual's ability to make full use of their employability assets is contingent on the relationship between their circumstances and the labour market context. Brown *et al.* (2002) criticised this perspective arguing employability was primarily determined by the labour market as opposed to individual capabilities, whereas Knight and Yorke (2003) argued that Hillage and Pollard's (1998) concept of 'capability' is ambiguous as it suggests both necessary characteristics and potentials.

2.4.4.2 Knight and Yorke's USEM graduate employability model

Knight and Yorke (2003, p. 5) presented a more complex model, defining graduate employability as "a set of achievements, understandings and personal attributes that make individuals more likely to gain employment and be successful in their chosen occupations." Desired graduate employability skills and characteristics will not necessarily equal employment as various socio-economic variables impact thereon, circumstances constrain occupational choices and having employability skills does not necessarily equal job success (Knight & Yorke, 2003). The USEM model views employability as influenced by four broad interrelated components, namely (U)nderstanding of academic knowledge, broad (S)kilful practices focussing on awareness and responsiveness, (E)fficacy beliefs and other personal qualities enabling the individual to views task as learning opportunities, and (M)etacognition which encompasses self-awareness relating to learning and the capability to reflect on activities (Yorke & Knight, 2003, 2006). Metacognition is crucial in developing employability (Yorke & Knight, 2006), with the focus on how skills attained in HE can be continuously improved to offer students opportunities to improve their employability (Clarke, 2008).

2.4.4.3 Fugate, Kinicki & Ashforth's psycho-social dimensions of employability

Fugate, Kinicki and Ashforth's (2004) psycho-social dimensions of employability model is a supply model as the individual is responsible for the management of their career and the KSAO's valued by both current and future employers. They contended that the world of work and career landscape is becoming increasingly dynamic, requiring individuals to become progressively adaptable and dynamic. They suggested that individual employability comprises a combination of person-centred constructs assisting workers in adjusting to these changes and thus identify and realise career opportunities. Employability is thus defined as "a psycho-social construct that embodies individual characteristics

that foster adaptive cognition, behaviour and affect, and enhance the individual-work interface” (Fugate *et al.*, 2004, p. 15). Employability is the aggregate of three core dimensions, namely career identity, personal adaptability (proactive personality) and social capital (Fugate *et al.*, 2004; Kinicki, 2006).

This is the only model which was evaluated against actual employment with a longitudinal study by McArdle, Waters, Briscoe and Hall (2007) finding that on unemployed respondents finding that Fugate *et al.*’s (2004) dimensions, except for education and networking, explained 39% of the variance in job-search behaviours.

2.4.4.4 Fugate and Kinicki’s dispositional employability model of employability

Fugate and Kinicki’s (2008) dispositional employability model evolved from their earlier psycho-social dimensions of employability perspective (Fugate *et al.*, 2004). Similarly, the model holds that the world of work as uncertain, fast-changing and fast-paced requiring individuals to act proactively in order to remain competitive in the job market. Dispositional employability is defined as “a constellation of individual differences that predispose employees to (pro)actively adapt to their work and career environments ... employability is a disposition that captures individual characteristics that foster adaptive behaviours and positive employment outcomes” (Fugate, 2006, pp.267-268). Individuals with high employability can identify and realise a broader assortment of career opportunities and alternatives (Fugate *et al.*, 2004). The six dispositional factors identified in the model are work and career resilience, openness to change at work, work career proactivity, career motivation and work identity (Fugate & Kinicki, 2008).

Fugate and Kinicki (2008) developed a dispositional questionnaire to measure the model, the output of which correlated positively with the constructs of “affective commitment to changes” and “positive emotions related to changes” in an organisational context. Bezuidenhout (2011) criticised the study as important factors contributing to employability, such as social capital, were not incorporated in the model. At the same time acknowledging that resilience, proactivity and openness do play an important role in graduate employability.

2.4.4.5 Dacre Pool and Sewell’s career EDGE model of graduate employability

Dacre Pool and Sewell’s (2007, p.280) defined graduate employability as “...a set of skills, knowledge, understanding and personal attributes that make a person more likely to choose and secure occupations in which they can be satisfied and successful.” They developed the career EDGE model comprising five lower-tier components should be developed by an individual, namely (i) career development learning through becoming aware of career interests and accompanying employment

opportunities, while developing self-marketing and interviewing skills; (ii) work and life experience; (iii) specialised degree subject knowledge and skills, (iv) generic skills including being an adaptable, willing, creative and imaginative learner; and (v) emotional intelligence competence. These work together, through continual reflection and evaluation on the part of the individual, to enhance beliefs of self-efficacy, positive self-esteem and global self-efficacy which in turn contribute to the students' employability (Dacre Pool & Sewell, 2007; Dacre Pool, 2016). Dacre Pool *et al.* (2014) operationalised the Career EDGE model through the Employability Development Profile (EDP). They found, based on factor analyses of data from 807 undergraduate students, that the EDP reflected the dimensions of the Career EDGE model.

The Career EDGE model is well organised, detailed and inclusive of key employability dimensions and reflects the general structure of qualifications within HEIs with the five categories allowing for the formulation of specific learning objectives (Jollands, 2015) and can easily be modified to include new sub-categories (Smith *et al.*, 2014). However, the model does not address important employability skills such as recognising the influence of workplace politics, collecting, analysing and organising information, and recognising ethical workplace practices (Smith, Ferns & Russell, 2014).

2.4.4.6 Bridgstock's model of graduate employability

Bridgstock (2009) placed her model within the attributes perspective proposing four categories of skills that make graduates employable. Career management is an ongoing process encompassing reflection, evaluation and decision-making which are made possible through self-management and career-building skills. These are, in turn, based on a foundation of traits and dispositions that contribute towards the effective use of generic and discipline-specific skills in a world of work that is in flux. Bridgstock's (2009) self-management skills denoted the individuals' self-perceptions and appraisals regarding their values, abilities, interests and goals, which is closely linked to the concept of career identity (see Section 2.4.6).

2.4.4.7 Coetzee's psychological career resources

Coetzee's (2008, 2014; Coetzee & Roythorne-Jacobs, 2011) work is important in the context of graduate employability given that it has taken place in the SA context and attracted attention in the SA academic literature. Coetzee (2014) conceptualised employability in terms of psychological career resources (PCR's), which are self-regulatory career meta-capacities that assist the individual in navigating the uncertainties of modern-day careers. Career meta-competencies comprise behavioural and career adaptability through the development of skills and psychological competencies that enable individuals to proactively manage their careers through self-directed learning (Coetzee, 2008, 2014;

Coetzee & Roythorne-Jacobs, 2011). This is also a supply model in that the individual is responsible for their career management (Coetzee, 2014; Marock, 2008; Potgieter, 2014).

The underlying assumption is that 21st-century individuals are competency traders and that their employability depends on the unique skills, knowledge, experience, and attributes which they can offer in the marketplace. PCRs are “the set of career-related orientations, values, attitudes, abilities and attributes that lead to self-empowering career behaviour and promote general employability” (Coetzee, 2008, p.10). Individuals’ career preferences and values encompass their distinctive views regarding their career decisions which are impacted upon by three PCR’s, namely career drivers, career enablers and career harmonisers (Coetzee, 2008, 2014; Coetzee & Roythorne-Jacobs, 2007). PCR’s are intrinsic to an individual and enable them to adapt and succeed in the changing world of work within a specific socio-cultural context (Coetzee, 2014).

Coetzee (2007) developed the Psychological Career Resources Inventory (PCRI) to measure her model which she validated on a sample of 2 997 distance education students. PCR’s have been positively correlated with other psychological constructs including subjective work experience (Coetzee & Bergh, 2008), career anchors, emotional intelligence and employability (Coetzee & Schreuder, 2011), graduate attributes (Coetzee, 2011), coping resources in young unemployed black graduates (Coetzee & Esterhuizen, 2010), and with Bezuidenhout’s (2011) Graduate Employability Measure (GEM) scale (Symington, 2012). However, a recent master’s study found that Coetzee’s (2007) PCR’s did not predict the probability of university students being selected for work integrated learning (WIL), or that attending WIL improved their employability as reflected in an increase in PCR scores (Namuwa, 2020).

2.4.4.8 Bezuidenhout’s Graduate Employability Model

A second SA graduate employability model is that of Bezuidenhout (2011) developed from the work of Fugate *et al.* (2004) and Fugate and Kinicki (2008). Bezuidenhout (2011, p. 78) defined graduate employability as “...a psycho-social construct representing a combination of attributes (dispositions, values, attitudes and skills) that promote proactive adaptability in changing environments and enhance an individual’s suitability for employment and the likelihood of obtaining career success.” Graduate employability signifies a proactive adaptability that helps an individual to identify and realise career opportunities in a world of work defined by change (Bezuidenhout, 2011). The model comprises two employability dimensions, namely career self-management and cultural competence, which contribute to six personal dispositions for employability namely, sociability, entrepreneurial

orientation, proactivity, career resilience, openness, emotional literacy and career-related self-evaluations.

Bezuidenhout's (2011) work remains largely theoretical with her self-rating Graduate Employment Measure (GEM) scale only incorporating three of the dimensions from her model, namely career self-management, career resilience and cultural competence. The model has not attracted much research, the only study incorporating the model being Symington's (2012) who found a significant correlation with Coetzee's (2008) PCR's.

The attributes and capabilities models reviewed above were constructed around theory and focus on the graduate employment as an outcome variable. All place the responsibility for developing employability in the hands of the individual with the core assumption being that the individual possesses agency, i.e. that they can make choices about developing their attributes and capabilities, within an increasingly turbulent world of work. The assumption is that the marketplace comprises individual actors who agentially react to the requirements of the labour market and are empowered through their agency to acquire various forms of human capital (Tholen, 2013). The gradueness and graduate attributes perspective that follows is different in that it focusses on the role of HEIs in developing graduates as opposed to the graduate responding to the needs of the marketplace. Whereas theories and models within the attributes and capabilities perspective focus exclusively on employability, the following perspective, that of gradueness and graduate attributes, incorporates employability within the broader context of creating graduates who are responsible members of society.

2.4.5 Gradueness and the graduate attributes perspective of employability

The graduate attributes perspective focuses on the contributions that HEIs aim to make through the types of graduates they aim to create, i.e. what gradueness comprises. This perspective has its roots in the UK HE Quality Council (1996), which aimed to identify the attributes expected of graduates across all degree programmes (Chetty, 2012). Gradueness is viewed as a set of qualities that describe an individual who has undertaken a degree course at a university (Glover *et al.*, 2002). It encompasses the qualities, skills and understandings that a university believes its students should develop during their studies and which will serve to shape their contribution as a citizen and employee (Bowden, Hart, King, Trigwell & Watts, 2000). This approach incorporates the two key dimensions of graduate attributes in that they relate to both the individual's capacity to make a meaningful contribution to society and their employability capacities (Bridgstock, 2009). Gradueness thus goes beyond

employability; it aims to develop graduates who are well-rounded citizens who contribute to broader society (Groenewald, 2012).

The graduateness statement of a university is a list of graduate attributes that denote the core values of its culture and signify its commitment to producing graduates possessing those attributes regarded as important by key stakeholders (Coetzee, 2011, 2012). However, graduateness is also a contested construct given the varying priorities of the various stakeholders (Bernstein & Osman, 2012; Coetzee, 2012) and is a culturally legitimated construct reflecting the ideals of a particular society (Clapper, 2012). Bernstein and Osman (2012) argue that within the SA context, graduateness necessitates generating educated citizens, qualified for their chosen professions though addressing both critical skills shortages as well as equity and upliftment imperatives.

Employability is one element of graduateness that encompasses career-related attributes and dispositions important to employers and students in an uncertain employment context (Coetzee, 2011, 2012; Groenewald, 2012). The current graduateness discourse is dominated by sentiments related to preparing graduates for the workplace, based on employer needs (Makhanya, 2012). Graduateness thus implies preparing students for an unknown career future through a holistic perspective to teaching that includes both subject-related knowledge and workplace readiness (Shuttleworth, 2012). Graduates need to be empowered to be employable and to have the capacity to contribute to society (Holtzhausen, 2012).

This perspective has been particularly dominant in the SA context with most SA universities having formulated lists of the graduate attributes that they intend to foster in their students (Van Schalkwyk *et al.*, 2012). Jacobs and Strydom (2014) noted that the practical implementation of understanding graduate attributes in the SA HEI context varies between prescribing a book on the topic to instituting a module as a pre-requisite for first-year students. SAQA (1997) also articulated CCFOs, essential attributes that all educational programmes in the SA context were expected to reflect (Van Schalkwyk, Herman, & Müller, 2012). They are also reflected in one of the most influential studies in the SA graduate employability context, that of Griesel and Parker (2009), which examined employers' satisfaction with graduates based on four categories of graduate attributes, namely basic skills and understanding, knowledge and intellectual ability, workplace skills and knowledge, and interactive and personal skills. Walker (2010) proposed that HE holds a promise for long-lasting and fair social change, especially if graduate attributes are conceptualised using the normative capabilities and human development perspective proposed by Sen (1992, 1999, 2009) (refer to Section 3 on agency in the next chapter).

Criticisms include that what is taught by HEIs does not contribute to building said attributes nor is it experienced by students in that way (Bosanquet, Winchester-Seeto & Rowe, 2012). Both the environment in which HE is delivered as well as the socio-economic and cultural environment from which students emanate are also largely ignored (Makhanya, 2012). Whereas the development of lists of graduate attributes by HEIs is predominantly stakeholder-driven (Coetzee, 2011, 2012; Van Schalkwyk *et al.*, 2012) there appears to be little empirical evidence that the various lists of graduate attributes contribute to employability. There also appears to be a general disregard for providing a sound theoretical foundation for the various attributes.

Whereas both the graduate attributes and capabilities perspectives focus on dimensions that are generally 'definable' the identity perspective is 'fuzzier'. The graduate employability as identity perspective presented below views employability as an interactive process. Employability is seen as a socially constructed identity, rather than a set of skills, competencies or attributes.

2.4.6 Graduate employability as identity perspective

An alternate perspective that maintains employability is largely constructed by the individual, as opposed to skills 'collected', is found in the form of the graduate identity perspective to employability. The idea of conceptualising graduate employability as identity arose from the belief that the skills perspective did not adequately explain differences in access to employment amongst graduates (Holmes, 2006, 2015; Jackson, 2016) and that there is a subjective dimension in understanding the labour market outcomes in the form of social identity (Anakwe, Hall & Schor, 2000; Brown *et al.* 2002; Holmes, 1995). The construction of a career identity is a continuing process taking place throughout an individual's lifespan. It is influenced by the individual's historical, social and cultural contexts (McMahon, 2014) which is also the position that this thesis adopts when proposing employability as a function of ego identity development (see Section 2.5).

Meijers, Kuijpers and Gundy (2013, p. 49) provided a useful definition of career identity as "the commitment a person has towards specific occupational activities or a specific career." Evidence suggests that graduate success in the job market is linked to the individual's ability to establish positive identities (Tomlinson, 2012) which influences the range and types of jobs the individual will apply for (Brown *et al.*, 2002). The three most prominent theorists in the literature who have recently aimed to address the issue of graduate identity are Hinchliffe and Jolly (2010), Jackson (2016), and Holmes (2001, 2006, 2015).

2.4.6.1 Hinchliffe and Jolly's student identity

Hinchliffe and Jolly (2010) examined graduate identity formation, referring to it as a "student identity". They are assumed shaped through both subject discipline and a wider experience as a student, noting that individuals are likely to experiment with identity during their studies. This aligns with Erikson (1968; Erikson & Erikson, 1997) ideas on ego identity formation, which form the theoretical foundation of this thesis (discussed in Chapter 3).

In order to perform in the workplace, the graduate must understand how a field functions and construct a legitimate identity for themselves therein (Hinchliffe & Jolly, 2010). Hinchliffe and Jolly (2010) argue that the graduate's identity needs to meet employer expectations. They identified four dimensions of graduate identity, namely values, intellectual rigour in thinking, social engagement and performance in the workplace. Although Hinchliffe and Jolly (2010) located their perspective within the identity discourse, it models more closely aligns with the attributes and resource perspective (see Section 2.3.4).

2.4.6.2 Jackson's pre-professional identity (PPI)

Jackson (2016) maintain that identity is created through a collaborative process with communities within the individual's environment. Graduates form a pre-professional identity (PPI) during their university years, which comprises an understanding of the dimensions of their profession, including its work-related attributes. The graduate's PPI enables the individual's employment preparedness and the successful application of acquired knowledge and skills as a novice professional. Jackson (2016) emphasised characteristics such as critical reflection, self-belief, lifelong learning and resilience, amongst others, as key to the successful formation of the graduate's PPI.

Both Hinchliffe and Jolly's (2010) and Jackson's (2016) perspectives address how a graduate identity forms, whereas the modalities of emergent identities perspective proposed by Holmes (2001, 2006, 2015) focusses on the degree to which the individual is able to implement their PPI or student identity.

2.4.6.3 Holmes' modalities of emergent identities

Similarly, to Jackson (2016), Holmes (2006) viewed graduate identity as relational, contending that the outcome is socially negotiated and constructed, and can be challenged at any point throughout the individual's lifespan. Graduate identities are linked sets of practices specified in varying degrees, which can transform over time, and vary between contexts. The generation of a graduate identity is an ongoing process involving both self-identification and ascription by significant others of attributes and characteristics (Holmes, 2001, 2015). His model identifies five zones of graduate identity that emerge

over time, namely indeterminate, failed, imposed, achieved and under determined identity (Holmes, 2001, 2006, 2015). A shortcoming of the model is that qualitative case studies are used to illustrate the different 'zones' as opposed to detailed theoretical explanations.

2.4.7 The graduate capitals perspective of graduate employability

Finally, Tomlinson's (2017) graduate capitals perspective, is closely aligned with the current study. In the conceptual paper titled "Forms of graduate capital and their relationship to graduate employability" Tomlinson (2017, p. 339) offers "an alternative vocabulary to understanding graduate employability, its development in HE and in graduates' transition to the labour market". Although Tomlinson's (2017) conceptual framework aligns closely with the assumptions on which this thesis is based, it was published after the 2011 commencement of the study and after the data collection took place in 2015. It thus adds legitimacy to the approach used in the study. There are also several examples of similar paradigms in science, developing separately yet concurrently with one another (Kuhn, 2012).

Tomlinson (2017, p.339-340) defines employability as "constituting a range of dynamic, interactive forms of capital which are acquired through graduates' lived experiences" and capital as "key resources that confer benefits and advantages onto graduates... acquired through formal and informal experiences.." Tomlinson's (2017) conceptual model includes five forms of capital, namely human, social, cultural, psychological and identity capital. Tomlinson (2017) argued that the graduate capital perspective has the potential to inform how graduates from different backgrounds relate to the job market. A key advantage of this approach is the emphasis on multiple resources, acquired both in and outside formal education.

Tomlinson's (2017) model has not been conceptually tested and he does not provide guidelines as to how it could be operationalised. While he conceptualised human, social and cultural capital in line with the major theorists in the field (see Chapter 3), the constructs included as psychological capital, namely resilience, self-efficacy and adaptability, are not linked to sound theory or empirical evidence of links to graduate employability. When dealing with identity capital he refers to the work of Côté (2005), however his definition that relates self-perception, self-concepts and personal narratives of self are more closely linked to Holmes' (2013, 2015) emergent graduate identities and Jackson's (2016) pre-professional identities. His treatment of identity capital appears ambiguous he notes it is related to human development while also regarding it as a self-concept and personal narrative. Tomlinson (2017) does not explain how these different perspectives should be integrated. He also treats identity capital as separate from other forms of capital, which conflicts with Côté's (2005) view

that human, social, cultural (tangible) and psychological capital (intangible) are sub-dimensions of identity capital (see Chapter 3).

The seven graduate employability perspectives reviewed above are predominantly theoretical and where empirically tested did not do this against graduate's employment success. Despite the fact that developmental theory does not, to date, provide a specific theory on graduate employment this forms a critical dimension of the graduate's life trajectory.

2.4.8 Employment and employability as developmental tasks

There is consensus within the developmental literature that obtaining employment and the accompanying relative economic independence signify the individuals' entrance into adulthood (Berger, 2014; Fingerman, Berg, Smith & Antonucci, 2011; Kail & Cavanaugh, 2010; Santrock, 2013).

Employment is a key developmental task within the life trajectory of the individual. Initial employment, especially graduate employment, occurs during the period referred to by Erikson (1968; Erikson & Erikson, 1997) as late adolescence, and now referred to as emerging adulthood, occurring from the late teens to the mid-20s (Arnett & Eisenberg, 2007; Arnett, 2015). Several psychological theories examine adolescent development; however, many are not particularly appropriate in explaining the employability of the late adolescents/emerging adults. For example, Piaget focussed on cognitive development (Piaget, 1954), and Anna Freud focussed on psychological problems and adaptation during this phase of development (Feud, 1966). Emerging adulthood provides a significant time to study career development given the unique experiences undergone in relation to the world of work (Arnett, 2004).

Erikson's psychosocial theory of ego-identity development is especially relevant in the context of adult occupational behaviours (Bergh, 2011). Erikson (1950; 1968; Erikson & Erikson, 1997) theory of personality development, referred to as ego identity (personality) development has a particular focus on the development of an employment identity and actual employment, which he regards as a key developmental task taking place within late adolescence/emerging adulthood. It has been contemporised through the work of Arnett (2004, 2015) on emerging adulthood and operationalised through Côté's (1996, 2002, 2005) identity capital model (discussed in detail in Chapter 3).

2.4.9 Graduate employment as employability

Typically, graduate employability theorists view employability in line with Yorke's (2006) perspective that students leaving HEIs should have the potential to succeed in employment. An employable graduate possesses specific job skills, can apply critical and reflective thinking and possess as personal

attributes that enable the graduate to deal with the complexity and ambiguity of employment environments.

Graduate employability theorists generally regard employability being equated with employment as problematic given that there are many factors in the employment environment that impact upon employment (e.g. Dacre Pool & Sewell, 2007; Fugate *et al.*, 2004; Knight & Yorke, 2003; Pegg, Waldock, Hendy-Isaac & Lawton, 2012). At the same time, though these are less frequent, there are examples of employability equated with employment. Glover *et al.* (2002, p.296), for example define employability as being “concerned with the way in which those who have completed university courses can be assimilated into national and international employment.” Similarly government-sponsored reports on HE matters principally view employability as gaining employment (Aamodt & Havnes, 2008; Chetty, 2012) such as the UK’s Dearing Report (Dearing, 1997), the annual graduation surveys in the UK and Australia (Dacre Pool *et al.*, 2014) and the SA graduate destinations survey (Letseka, Cosser, Breier & Visser, 2009).

Despite the reluctance of graduate employability theorists to examine graduate employment, its importance cannot be ignored. In an environment characterised by rising HE costs, economic uncertainty and a graduate labour market that is becoming increasingly competitive, it is critical that HEI enhance their graduates’ ability to gain employment (Jackson, 2016). HE stakeholders, including policymakers, employers and students are insisting on well-defined and tangible outcomes in answer to growing economic investments (Holmes, 2011, p.411). Evidence indicates that students are largely motivated to enter HE by economic instrumentality expecting that their qualifications will lead to graduate quality employment in their field/discipline of study (Bezuidenhout, 2011; Coetzee, 2012; Dacre Pool & Sewell, 2007; Glover *et al.*, 2002).

Operationalisation of graduate employment is often crude, for example, assessing whether any kind of employment has been secured within six months of graduating (Dacre Pool & Sewell, 2007). This recognises that graduates often take on simple jobs and grow these (Harvey, 1999) and that the transition from HE into employment is not straightforward for many graduates (Holmes, 2015). It is also notable that graduates carry significant amounts of debt, with the result that they may take on lower-level jobs in order to service this debt (Brown *et al.*, 2002; Dacre Pool & Sewell, 2000). The complexity of graduate employment is illustrated by the international graduate tracking systems which include various quality indicators, such as time to gain employment, satisfaction with job, type of job, and wage levels (Usher & Marcucci, 2012). Another key indicator is subjective satisfaction with the quality of employment (Burchell, Sehnbruch, Piasna & Agloni, 2014; Cassar, 2010; Drobnič, Beham, & Präg, 2010). Subjective satisfaction assesses the association between an individual’s employment

and related expectations (Agassi, 1992 in Burchell *et al.*, 2014). Skills utilisation, in general, has also been used as an indicator of employment quality (Burchell *et al.*, 2014; Dahl, Nesheim & Olsen, 2009).

All employment is not equal and can be divided into a primary segment, including well paid stable employment, and a secondary sector of unstable jobs that are generally less well-paid (Dekker *et al.*, 2002). The reality is that simply having a job does not necessarily guarantee even a basic standard of living (Burchell *et al.* 2014). To this end, the International Labour Organisation (ILO) introduced the concept of 'decent work' in 1999 (Ghai, 2006; ILO, 2012; Mascherini, 2014) in order to delineate basic quality indicators for employment. Lloyd (2006) notes that there are differences in socio-cultural values as to what is decent employment, the ILO developed the Framework on the Measurement of Decent Work, comprising a number of fairly universal quality indicators. These include sufficient income to support basic needs, decent working hours, a balance between work and private life through leave, safe and healthy working conditions and social security (ILO, 2013).

Employment is further impacted upon by a broad range of factors, many of which are beyond the control of the graduate such as the demand for particular occupations changing over time (Hillage & Pollard, 1998; Rothwell & Arnold, 2007). A graduate may possess the required attributes and skills, but be unemployed due to market conditions such as (i) short-term frictional unemployment caused by changing market conditions resulting in employees moving between organisations and employers and employees struggling to find one another; (ii) cyclical unemployment where the economy experiences a cyclical downturn resulting in short-term job shortages often lasting between one and two years; and (iii) long-term structural unemployment where the economy does not have the ability to accommodate the unemployed (Arnold, 2010; D'Souza, 2008; Janoski, Luke & Oliver, 2014).

Several factors within the labour market may contribute to graduates struggling to find employment including the massification of HE and the labour market (especially the SA market with high levels of unemployment) not necessarily being capable of providing graduate jobs to accommodate the increasing number of graduates (Brown *et al.*, 2002). As a result, jobs previously viewed as non-graduate have been upgraded, requiring HE qualifications (Tomlinson, 2012), the fact that graduates specialise in particular fields may limit their employability given that they do not qualify for jobs unrelated to their qualifications (Brown *et al.*, 2002). Legislation, such as the Employment Equity Act (Act 55 of 1998) also impacts on some graduate's probability of gaining employment. At times employers also apply selection criteria that can be regarded as personal and irrational (Harvey, 2001).

Given that graduates start employment at a variety of levels due to labour market conditions, it is less clear in the modern world, what a graduate job comprises (Brown *et al.*, 2002), even though it is

commonly acknowledged that graduate employment should be seen as proportionate to the education and skills of the individual (Tomlinson, 2012). Similarly, Dacre Pool and Sewell (2007) noted that a graduate-level job generally comprises employment in which the graduate is required to use the knowledge, skills and understanding gained during their studies. Arguments against using employment as evidence of employability include the fact that it often takes longer than six months to secure a desired 'graduate-level' employment and that the graduates ability to gain employment is impacted upon by the status of the HEI attended, the mode of study, the location of the student and their mobility, type and nature of qualification, work experience, age, gender, ethnicity and social class (Dacre Pool *et al.*, 2014; Harvey, 2001). Jackson and Bridgstock (2018) note that simple graduate employment measures tend to devalue the social, cultural and economic value of employment as well as placing an over-emphasis on full-time employment.

The perspectives reviewed above neglect the fact that, at the same time as seeking employment, graduates find themselves in a particular phase of their human development. The associated psychosocial variables and their impact on developing employability have generally been ignored and are thus reviewed in the next section.

The next section examines whether it is appropriate to consider actual employment as a proxy for graduate employability.

2.5 Synopsis and criticisms of the current graduate employability perspectives

The contemporary perspectives of graduate employability predominantly supply focussed viewing of graduate employability as skills, characteristics or attributes that the individual is required to develop in order to address the job market needs. The demand aspect of employability, namely the socio-economic context of the world of work is largely ignored by the various perspectives, except the labour market perspective of de Grip *et al.* (2004) and the human capital perspective of Brown *et al.* (2002) which do consider the role of labour market factors. Whereas the focus of these models is on human capital in the labour market, they are narrow and ignore the role of other resources that can facilitate employability. The different dimensions of human capital are ignored, although the employability skills perspective aims to address this with a wide variety of lists of skills generated. The predominant focus has been the development of industry-relevant employability skills that neglect the complexities of graduate work readiness (Jackson, 2016) and which largely ignore the context in which the skills are to be exercised (Tomlinson, 2012). At the same time the content and structure of these lists are seldom based on thorough research (Holmes, 2013), and where research has taken place, the identified skills

did not improve the probability of employment (Cranmer, 2006; Hinchliffe & Jolly, 2010; Jonck & Van der Walt, 2015).

The models within the attributes and capabilities perspective have attempted to broaden the graduate employability concept by including attributes, traits, capabilities or characteristics that the graduate should possess in order to be employable. Although the models within this perspective comprise distinct conceptual entities, they overlap with the human capital, identity and labour market perspectives. Human capital is incorporated as a combination of assets (Hillage & Pollard, 1998), skills, subject understanding and metacognition (Knight & Yorke's, 2003), experience, degree/subject knowledge and generic skills (Dacre Pool & Sewell, 2007), and career enablers (Coetzee, 2008, 2014). Work identity (Knight & Yorke's, 2003) plays an important role in determining an individual's employability; with the labour market, incorporated as a determinant of employability, being considered (Hillage & Pollard, 1998).

The attributes and capabilities perspective differs from the earlier perspectives as specific career management capabilities are considered, as well as deployment skills and presentation to the labour market (Hillage & Pollard, 1998), work and career resilience, openness to change, work and career proactivity and career motivation (Knight & Yorke's, 2003), career drivers and career enablers (Coetzee, 2008, 2014) and career self-management (Bezuidenhout, 2011). Psychological resources are further incorporated in the form of personal qualities (Knight & Yorke's, 2003), self-efficacy, self-esteem, self-confidence and emotional intelligence (Dacre Pool & Sewell, 2007), career harmonisers (Coetzee, 2008, 2014), and underlying dispositions for employability (Bezuidenhout, 2011). Finally, cultural capital is incorporated in the form of cultural competence (Bezuidenhout, 2011).

The theoretical foundation of the attributes and capabilities perspective appears to be tenuous at times given that the dimensions included in the different models are often not supported by research, rather relying on the ideas of other theorists. Holmes (2013) argued that this perspective is theoretically flawed claiming numerous tenuous relationships between concepts, whereas the survey research methodology generally employed, relies on subjective data, based on graduate's own perceptions. The different models focus on supply factors in the form of human capital, career management capabilities and psychological resources, whereas the roles of work identity (Yorke & Knight, 2003) and cultural capital (Bezuidenhout, 2011) are merely touched on. The fact that the labour market is an arena in which individuals compete with one another to obtain employment and accompanying status, wealth and power, is largely ignored (Tholen, 2013). The exception is Hillage and Pollard's (1998) model which considers the employment environment. The authors, however, do specify what aspects of the employment environment are relevant.

The graduate attributes perspective, which developed concurrently with the employment attributes and capabilities perspective, focused on the “qualities, skills and understandings” (Trigwell & Watts, 2000, p.3) that universities aim to develop in their graduates that make them both employable and responsible citizens. These lists are subjective in that they are largely stakeholder-driven, being generated by groups of lecturers, employers or students (Bernstein & Osman, 2012; Coetzee, 2012), seldom built on solid scientific theory or tested empirically and largely ignore the environment from which the students originate (Makhanya, 2012).

The graduate identity perspective, as illustrated by Holmes’ (2006, 2015) modalities of emergent identities, Jackson’s (2016) PPI and Hinchliffe and Jolly’s (2010) student identity, arose as a direct response to the skills perspective. They emphasise the importance of the interaction between the individual and the environment which provides the basis for the individual to develop a certain socially constructed and negotiated identity. It assumes that this identity then influences the graduate’s lack of employability, which in turn, influences the skills and attributes they are able to acquire. perspective to employability viewing identity as socially negotiated and constructed. This perspective is useful in understanding employability in that individual agency is emphasised. However, it appears to address a single dimension of employability as it examines how the individuals construct their employment identities, but does not include other dimensions of employability such as the skills and competencies required, as well as challenges of the employment environment

Existing employability perspectives generally ignore that graduate employability is largely dependent on the individual’s context (Clarke, 2008; Makhanya, 2012). The SA context is particularly problematic as it comprises a wide diversity of students originating from diverse socio-economic and cultural backgrounds (Makhanya, 2012). It could be argued that Tomlinson’s (2017) graduate capitals model addresses this shortcoming in that it conceptualises the various forms of capital available to the individual in their environment. However, the constructs that Tomlinson (2017) included as psychological capital lack a solid theoretical basis with his conceptualisation of identity capital ambiguous. At the same time, his conceptual model has not been operationalised and the relationships between different forms of capital has not been delineated.

A key shortcoming within the graduate employability literature is that it generally does not address actual employment outcomes (Fugate *et al.*, 2004; Holmes, 2013). This is problematic given that students generally expect that their qualifications will guarantee them a profitable outcome (Glover *et al.*, 2002), while there is a growing pressure on HE to contribute to employment (Harvey, 1999). Many theorists (e.g. Coetzee, 2008; Dacre Pool & Sewell, 2007; Knight & Yorke, 2003; Fugate *et al.*, 2004) argue that, given the impact of factors in the labour market, graduate employability cannot be

equated with employment. This argument seems flawed as a theoretically sound model should be able to incorporate most factors that impact on employment and where this is not the case, the variables postulated to predict employability, if valid, should predict a significant amount of the variance in employment outcomes. Greater employability, however defined or conceptualised, should predict actual employment to some extent whereas the majority of the theorists in the field avoid objective testing of the hypothetical relationships presented in their models.

Finally, in the graduate employability perspective reviewed in the previous sections, employability is treated as a largely insular construct, ignoring the psychosocial environment in which it occurs. They do not acknowledge the fact that the majority of full-time graduates are what the developmental literature refers to as late adolescence (Erikson, 1968; Erikson & Erikson, 1997) or emerging adults (Arnett, 2004). Becoming employable and gaining employment are elements of the larger development task of forming achieving a well-defined purpose in life, which Erikson (1968, Erikson & Erikson, 1997) refers to as successful ego-identity formation.

This thesis proposes the ICMGE, presented in the next section, as an alternative model of graduate employability that aims to offer an alternative to address as the identified shortcomings within the current perspectives, but.

2.6 Conclusion: The ICMGE

SA is a deeply unequal society with many disparities transferring to the HE context. A key example is the varying degrees of access to the system for members of different demographic groups. Those who have gained access differ in their ability to gain advantage from these experiences, and in the case of those who have graduated, there are disparities in their potential to gain employment. Where employment is gained, individuals differ in the quality of the employment obtained. At the same time, HE is proffered as a method of addressing many of the inequalities that exist in society by increasing the degree of agency and choice available to participants. This is particularly important given that employment is a clear expectation for students who anticipate that their qualification will lead, not just to any, but to quality employment.

The models and perspectives of graduate employability reviewed in this chapter fail to consider the broader psychosocial context of the graduate. These models are also not underpinned by a sound theoretical foundation and in many instances have not been empirically tested. When models have been validated, this has largely been based on data i.e. graduates' self-reports, as opposed to considering the objective criterion of actual employment. These models further fail to acknowledge

that the graduate is an emerging adult and that employability forms part of their larger developmental task.

This thesis proposes an alternate Identity Capital Model of Graduate Employability, contending that graduate employability is part of the larger task of ego identity development, which occurs during emerging adulthood, the developmental stage in which the majority of graduates find themselves. The underlying assumption of the ICMGE proposed here is that graduate employment is a key element of the individual's ego identity development. This comprises the development of a number of identity commitments including occupational choice, gender orientation, family roles, political beliefs, as well as ethical and religious values (Erikson 1950; 1968; Erikson & Erikson, 1997). The ego identity process is most prominent in the developmental stage referred to as adolescence by Erikson (1950; 1968; Erikson & Erikson, 1997), and emerging adulthood by Arnett (2000, 2007, 2015).

The model rests within the context of post-modern societies which present unique challenges for the graduate in the development of their ego-identities and accompanying employability. There is less support for their development from traditional social institutions such as the community, family, religious institutions and schools than there were historically (Bauman, 2007; Côté, 2000; Côté & Allahar, 1994; Giddens, 1990, 1991, 1993; Giddens & Pierson, 1998). The model is further designed around the limitations of the labour market such as differing demands for various occupations (Hillage & Pollard, 1998; Rothwell & Arnold, 2007), the massification of HE resulting in the inability of the labour market to provide graduate-level jobs to all graduates (Brown *et al.*, 2002) and structural unemployment in the economy making it impossible to accommodate all those seeking employment (Arnold, 2010; D'Souza, 2008; Janoski *et al.*, 2014).

Erikson (1950; 1968; Erikson & Erikson, 1997) stressed the value of individual agency in the development of ego identity. Côté (1996, 2002, 2005; Côté & Levine, 2016), through his identity capital model, postulated that identity formation in post-modern societies is enhanced through access to various forms of identity capital, both tangible and intangible. Côté (1996, 1997a, 2002, 2005) identified various sources of tangible identity capital, including financial, human, social and cultural capital. In addition, Côté (1997a; Côté & Levine, 2016) identified six intangible sources of identity capital that denoted an agentic personality, namely self-esteem, purpose-in-life, internal LOC, ego strength, self-actualisation, and ideological commitment. At the same time, given SA's historical context, the role of race and gender cannot be excluded when examining employment.

The central tenet of the Identity Model of Graduate Employment developed for this thesis is that graduates with access to greater tangible and intangible identity capital are more employable, and

thus more likely to gain employment, despite the challenges of the macro-environment. The model also incorporates Côté's (1997a; Côté & Levine, 2016) assertion that the different sources of identity capital are related to one another.

The identity capital model of graduate employability is presented graphically in Figure 2.1 below.

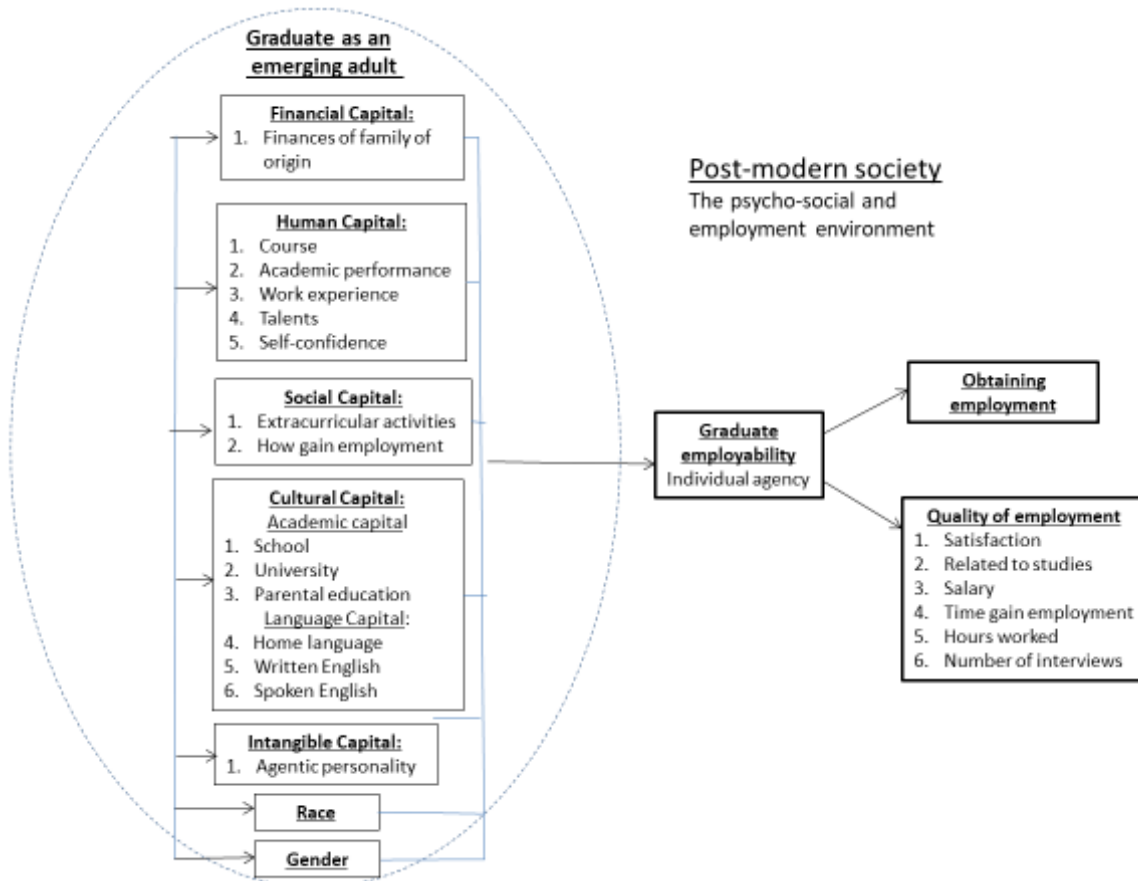


Figure 2.1 The proposed Identity Capital Model of Graduate Employment (ICMGE)

The variables included in the model are defined as follows:

- Graduate employability: Possessing sufficient identity capital to resources enable the graduate, who is an emerging adult, to develop an occupational commitment which allows them to be viewed as employable in the labour market.
- Obtaining employment: Attaining a job
- Quality of employment: Graduates' quality of employment is indicated by:
 - o The relatedness of the employment obtained to the subject of HE studies
 - o The graduate's satisfaction with employment
 - o Salary level
 - o The nature of employment (full-time vs. part-time)

- The number of interviews attended before securing employment
- Identity capital: The personal resources available to the individual, encompassing investments into who they are, which are brought to various social contexts, including those related to employability and employment (Côté, 1997a; Côté & Levine, 2016).
 - Tangible identity capital: Assets that are “socially visible...functioning as ‘passports’ into other social and institutional spheres” (Côté & Levine, 2002, p.144).
 - Financial capital: The financial resources of the graduate’s family of origin.
 - Human capital: The qualifications, knowledge, skills and experience of the individual determining their value in society (Coleman, 1990).
 - Social capital: Access to information and particular social groupings through supportive relationships and networks (Esser, 2008).
 - Cultural capital: Knowledge assimilated through the family from earliest childhood and further developed through schooling (Bourdieu, 1984). Cultural capital is divided into sub-categories, namely”
 - Linguistic capital: The combination of “speech patterns” (Côté, 1997, p. 578), fluency and sociocultural understanding of the dominant language within a society (Bourdieu, 1991).
 - Academic capital: The prestige and quality of the academic institution attended by the individual (Bourdieu, 1984).
 - Intangible identity capital: Psychological resources contributing to the agency of the individual (Côté, 1997a; Côté & Levine, 2016).
 - Agentic personality: Individuals who are more effective at self-regulation and are driven to take control over their circumstances. Agentic personality comprises an amalgamation of six intangible sources of identity capital, namely self-esteem, purpose-in-life, internal LOC, ego strength, self-actualisation, and ideological commitment (Côté, 1997a; Côté & Levine, 2002).
- Race: “...socially constructed categories that are superficially imposed to categorize, differentiate, and construct certain social groups as ‘others’” (Newton-Francis & Hamilton, 2008, p.384).
- Gender: “...the socially constructed distinction between male and female, based on biological sex but also including the roles and expectations for males and females in a culture” (Van den Bos, 2015, p.450).

The different theories upon which the model rests, as well as the constructs incorporated in the model, are reviewed in detail in the next chapter.

CHAPTER THREE

Identity Capital and its Foundations

3.1 Introduction

The previous chapter discussed the SA HE context and its various challenges and inequalities that impact graduate employment. The existing approaches that attempt to predict graduate employability were then reviewed and critiqued. This culminated in the presentation of the ICMGE an alternate model of graduate employment that holds that graduate employability and employment form part of the broader developmental phase of the individual in their early 20s. The ICMGE is based on the assumption that the possession of various forms of identity capital indicates the degree to which the graduate's developmental phase will likely be mastered and can thus serve to predict graduate employability and consequently employment.

The purpose of this chapter is to discuss the theoretical foundations of the proposed ICMGE and provide an understanding of the functioning of the various sources of identity capital incorporated in this approach to graduate employability. Firstly, Erik Erikson's (1950; 1968; Erikson & Erikson, 1997) ego identity theory is discussed. Arnett's (2000, 2007a, 2015) concept of emerging adulthood is then reviewed as an extension and modernisation of Erikson's theoretical assumptions, together with a discussion of the challenges posed by post-modern society for the late adolescent/emerging adult. The role of agency and individual choice is then discussed in relation to successful identity development and accompanying employment. Following this Côté's (1996, 2002, 2005; Côté & Levine, 2016) identity capital model is then presented as an integrating perspective in understanding the resources that contribute to the development of ego-identity and agency, as well as employability and employment.

The different forms of capital incorporated in the identity capital model of employability are then examined. Firstly, the different types of intangible capital, namely financial, human, social and cultural capital, are examined in terms of their development and underlying theories. The concept of psychological capital is then reviewed in general as a context for Côté and Levine's (1989, 1997, 2002, 2016) approach to dealing with intangible identity capital. The theoretical foundations of the six forms of intangible identity capital, namely self-esteem, purpose in life, ego strength, internal LOC, self-actualisation and ideological commitment that combine to form Côté's (1997, 2000) agentic

personality, are examined together with their theorised relationship to employment. Finally, the content presented is linked to the research questions examined in this thesis are presented.

3.2 Erikson's theory of psychosocial development

Erik Erikson (1950; 1968; Erikson & Erikson, 1997) is regarded as the most influential theorist in the field of human lifespan development (Syed & McClean, 2017), and his work still holds a great deal of authority (Dunkel & Sefcek, 2007; Richer, 2016; Schwartz, 2001; Vignoles, Schwartz & Luyckx, 2011). Erikson (1950, 1964, 1968) proposed a progressive eight-stage lifespan model of ego identity development, to which a ninth stage was added in the later years of his life (Erikson & Erikson, 1997). In order to understand his model, it is necessary to take cognisance two of his key theoretical concepts, namely the epigenetic principle and psychological crises that facilitate the transition between stages.

3.2.1 The epigenetic principle

Erikson (1968, Erikson & Erikson, 1997) postulated that identity development follows a similar process to that of an embryo with different stages dominating during a biologically and socially pre-determined time until all the parts have come to the fore in order to form a functional ego identity. The epigenetic principle holds that there are critical times for the development of specific mental vitalities associated with each stage, with the resolution of earlier stages impacting on the outcomes of later stages (Dunkel & Sefcek, 2007). The timing of each stage is important, as if a stage does not take place at the proper time, it may threaten the successful resolution of later stages (Erikson, 1982).

3.2.2 Psychosocial crises

Each of Erikson's (1950, 1968, 1982) nine psychosocial stages is marked by an age-related psychosocial crisis in which tensions arise between two opposing forces expressed in terms of two core virtues or outcomes which Erikson (1982) referred to as syntonic and dystonic (previously referred to as positive and negative) (Erikson, 1950, 1968) (see Figure 3.1 below). The normative crisis in each stage is precipitated by a combination of society's pressures and the readiness of the individual to move to the next stage (Erikson, 1968). The ideal outcome is a favourable ratio between the two outcomes resulting in optimal psychological health (Erikson, 1950, 1968, 1982). Crises are addressed by assembling the necessary resources required to grow and differentiate (Erikson, 1968, 1982) with earlier stages providing the foundation for development in the stages that follow (Erikson, 1980). For example, Erikson's fifth stage of identity versus identity confusion provides the foundation for later adult development (Erikson, 1968, 1980; Erikson & Erikson, 1997).

								GERO-TRASCENDENCE Materialistic vs. cosmic vision (Life satisfaction)
							OLD AGE Integrity vs. despair (Wisdom)	
						ADULTHOOD Generativity vs. stagnation (Care)		
					YOUNG ADULTHOOD Intimacy vs. isolation (Love)			
Temporal perspective vs. Time confusion	Self-certainty vs. Self-consciousness	Role experimentation vs. Role fixation	Apprenticeship vs. Work paralysis	ADOLESCENCE Identity vs. identity confusion (Fidelity)	Sexual polarization vs. Bisexual confusion	Leader and followership vs. Authority confusion	Ideological commitment vs. Confusion of values	Materialistic focus vs. cosmic vision
			SCHOOL AGE Industry vs. Inferiority (Competence)	Task identification vs. Sense of futility				
		PLAY AGE Initiative vs. Guilt (Purpose)		Anticipation of roles vs. Role inhibition				
	EARLY CHILDHOOD Autonomy vs. Shame, doubt (Will)			Will to be oneself vs. Self-doubt				
INFANCY Trust vs. Mistrust (Hope)				Mutual recognition vs. Autistic isolation				
1	2	3	4	5	6	7	8	9

Figure 3.1: Erikson's nine psychosocial stages of development (Adapted from Erikson, 1968; Erikson & Erikson, 1997)

3.2.3 Identity vs identity confusion

The identity crisis in the fifth stage of ego identity development comprises a tension between adopting an adult ego identity, with identity confusion being its polar opposite (Erikson, 1968, 1982; Erikson & Erikson, 1997). This crisis is most prominent when adolescence concludes, the duration and nature of which differs across cultures (Erikson, 1968; Côté & Levine, 1989). Erikson (1968, p. 50) defined ego identity as "...the awareness of the fact that there is a self-sameness and continuity to the ego's synthesizing methods, the style of one's individuality, and that this style coincides with the sameness and continuity of one's meaning for significant others in the immediate community."

The stages preceding adolescence provide an essential foundation for the fifth stage of Erikson's model (Erikson, 1950, 1964, 1968; Erikson & Erikson, 1997). The dystonic or negative alternatives for each stage, represented in the horizontal axis of Erikson's model, signify the symptoms of identity confusion. Identity confusion is related to earlier failures in the normative progress of identity development. A noteworthy point is that even if the conflict associated with an earlier stage is not resolved initially, the resolution can still happen later in the individual's life. Erikson (1968; Erikson & Erikson, 1997) did not view ego identity as a finalised outcome, but rather as an ongoing developmental process continually based on the experience of the self within social reality.

The development of an ego identity involves the exploration and consideration of a relatively wide range of identity commitments including occupational choice, gender orientation, family roles, political beliefs, as well as ethical and religious values (Erikson 1950; 1968, 1982; Erikson & Erikson, 1997). The period of adolescence during which the identity crisis occurs is viewed by Erikson (1950; 1968; Erikson & Erikson, 1997) as a 'psychological moratorium' granted by society during which the adolescent is granted a delay in assuming adult responsibilities. The adolescent has time to experiment with various roles, values and ideas, granting them time to develop a viable adult identity. This time, between childhood and adulthood, allows the individual to experiment with various identity options culminating in the relative completion of an inner identity (Erikson, 1968), which includes an employment identity.

HE settings are thought to have a moratorium effect (Erikson, 1968; Côté & Levine, 1987; Côté, 1997) in that it is often during this time that students 'find' themselves. Being a full-time student grants the individual the time, space and opportunity to experiment with various identity options. The challenge for adolescents during this moratorium is to develop a clear idea of the direction and purpose of their lives, i.e. to take on an adult identity (Côté & Levine, 2016, p. 14). Côté and Levine (2016) argued that

the developmental challenge during this stage is the development of three interrelated aspects of identity, namely:

- (i) *Ego identity*, the subjective/psychological aspect, encompassing the formation of a sense of continuity which presents as a sense of purpose in life;
- (ii) *Personal identity*, the individual aspect, exhibited in the creation and adoption of behavioural styles that differentiate the individual from others; and
- (iii) *Social identity*, the communal aspect, where the individual finds and adopts accepted roles and statuses within a community.

In terms of the employability literature, Côté and Levine's (2016) aspects of personal identity and social identity align strongly with Hinchliffe and Jolly's (2010) work on student identity (see Section 2.3.6.1) and Jackson's (2016) pre-professional identity respectively (see Section 2.3.6.2). Erikson (1968; Erikson & Erikson, 1997) as well as Côté and Levine (1989, 2016) argued that synchronising and stabilising these three aspects of identity can be challenging for the individual in post-modern societies as identity ascription is less prominent and collective norms often less effective, or even absent, in guiding the individual. An individual who has mastered this stage has committed to a vocation and developed a personal belief system, whereas those who have not resolved the stage are characterised by identity confusion expressed in a lack of commitment regarding career and values (Erikson, 1950; 1968; Erikson & Erikson, 1997).

The formation of ego identity in late adolescence, when the majority of students enter HE, is an important process in the formation of personality that denotes the end of childhood and the culmination of adulthood. Ego identity, as formulated by Erikson (1950; 1968; Erikson & Erikson, 1997), serves many essential functions. These include providing the individual with a foundation for comprehending who they are, giving meaning and direction by means of obligations, goals and values, offering a sense of personal control and free will, providing a drive for constancy, integration and balance between obligations, values and beliefs and facilitating the acknowledgment of potential through an idea of future possibilities and different choices (Adams, 1998). A key aspect of ego identity development is consequently selecting an appropriate occupation and gaining access to the world of work through possessing the necessary employability attributes.

Although Erikson (1950, 1964, 1968; Erikson & Erikson, 1997) placed his identity versus identity confusion stage within adolescence, he also noted that the time and duration are both biologically and socially determined. Significantly, Erikson (1950, 1964, 1968; Erikson & Erikson, 1997) observed that social norms, which change over time and differ between societies, impact on the timing and

duration of developmental stages. The identity resolution process often takes longer to resolve with all the challenges that post-modern societies present during this period. Schwartz, Côté and Arnett (2005) noted that the most outstanding characteristic of emerging adulthood is that it extends Erikson's (1968) psychosocial moratorium, that is the time during which the individual is permitted to explore potential identity alternatives, before assuming permanent adult commitments such as employment.

3.3 Arnett's emerging adulthood

Arnett (2000, 2007a, 2015) observed that there is an increase in the time taken to transition from childhood to adulthood in post-modern societies, largely due to economic constraints. Arnett (2000, 2007a, 2015) thus proposed an additional phase of development, emerging adulthood, which spans across adolescence and early adulthood. Hendry and Kloep (2007) argued that this differs depending on social class and background, however, Arnett (2007b, p. 81) contended that "From China to South Africa, from India to Chile, the same pattern is taking place in the lives of young people: longer education, later marriage ages, and later entry to parenthood." The concept of emerging adulthood resonates with Erikson's (1968; Erikson & Erikson, 1997) idea of a 'prolonged adolescence' which refers to the protracted psychosocial moratorium permitted to young people in industrialised societies. Arnett (2007a) noted that today this applies to a much larger number of individuals, with research demonstrating that identity resolution is seldom achieved by the end of high school and instead continues into the twenties.

There are many examples of individuals not assuming adult responsibilities, such as full-time and steady employment, before the age of 30 (Arnett, 2000, 2007a, 2015; Shulman, Feldman, Blatt, Cohen, & Mahler, 2005; Tomasik & Silbereisen, 2012). Arnett (2007a) identified five features of identity formation during emerging adulthood, namely that it is an age of (i) identity exploration taking place through exploring various opportunities, especially relating to employment and relationships; (ii) unpredictability; (iii) being self-focused; (iv) transition, no longer an adolescent, but also not an adult; and (v) possibilities and hope with unparalleled opportunities to bring about change in their lives (Arnett, 2007a), which aligns with Erikson's (1968) fifth stage of ego identity development versus confusion.

Arnett (2000, 2007a) notes that emerging adulthood is not a universal stage of human development, but rather a period existing under particular conditions, in certain cultures. These conditions include that the median age for marriage and parenthood is comparatively high, i.e. in the late twenties and beyond and is often associated with Western and some Asian post-modern societies. At first sight one

might conclude that South African society cannot be viewed as a post-industrial society, given that the median age of 21 for the birth of a first child (Stats SA, 2015b), whereas the median marriage age for women is 30 and 35 for men (Grant, 2015). However, the situation regarding those with HE differs significantly with a median age of 25 for the birth of a first child (Stats SA, 2015b).

With regards to employment, an individual's route to finding the right job can take many years, often interspersed with several short-lived, low-paying, tedious jobs (Arnett, 2007a, 2007b). Evidence from the SA context indicates that graduates take up to two years to find employment, however, the picture regarding the nature and quality of graduate employment is not as clear in terms of the type and quality thereof (Letseka *et al.*, 2009). The choices made during emerging adulthood become more serious with time as they provide the foundation for adulthood (Arnett, 2007a, 2007b). In the case of students, developing a graduate identity i.e. conducting themselves in a manner that makes employers view them as worthy of being employed is important (Holmes, 2013), given that this is a significant determinant of employment outcomes (Jackson, 2014; Pegg, Waldock, Hendy-Isaac & Lawton, 2012; Purcell, Elias, Atfield, Behle, Ellison, & Luchinskaya, 2013).

A vital aspect of both Arnett's (2000, 2007a, 2015) thinking regarding emerging adulthood, and Côté and Levine's (1989, 1997, 2002, 2016) identity capital theory, is the idea that today's emerging adults find themselves in post-modern societies that present unique challenges for identity development.

3.4 Identity development in post-modern societies

Post-modern societies are characterised by more freedom and opportunities primarily driven by globalisation, consumerism, the increased access to products and services, the proliferation of technology and communication through the internet, and realities that are socially constructed (Goneos-Malka, 2012). Individuals are required to make choices from an increasingly complicated range of options, often with less support from traditional social institutions such as family, community, church and school (Bauman, 207; Côté, 2000; Côté & Allahar, 1994; Giddens, 1990, 1991, 1993; Giddens & Pierson, 1998). Côté (2000, 2002) argues that this weakened collective support has resulted in more individualised life courses with more individualistic identity formation. Although a period of identity confusion is normal, this is intensified and more protracted as a result of the dearth of direction and guidance in post-modern societies (Côté & Levine, 2016). Côté (2006c) further argues that identity formation has become more complex in countries with high degrees of cultural diversity, as is the case in SA, as this may present more competing and incompatible identity options.

Table 3.1

Smith et al.'s (2011) post-modern cultural factors applied to the SA context

Significant growth in HE

The SA HE system has undergone notable massification (Brown *et al.*, 2002) evidenced in an increase of 34% in students registered at public HEIs from 735,073 in 2005 (CHE, 2012) to 985, 212 in 2015 (CHE, 2017).

Careers with less stability, lower security, frequent job changes

Both Coetzee (2008, 2014; Coetzee & Roythorne-Jacobs, 2011) and Bezuidenhout (2011) describe the change in the SA employment being environment influenced by factors such as job losses, globalisation, advances in technology, changing organisational structures, greater work flexibility and changing career paths and a greater need for self-management.

An ongoing necessity for continuing training

The lifelong learning discourse permeates the SA HE and employability landscape. It was one of the driving forces for the creation of the South African National Qualifications Framework (NQF) in 1995 (Walters & Bolton, 2015). The importance of lifelong learning for continued employability is emphasised (Coetzee & Esterhuizen, 2009; Louw, 2014).

Parents prepared to support children well into their 20s

Convenience, unemployment, economic conditions, debt and dependent parents have resulted in 31.8% of individuals between 25 and 35 still living with their parents in SA, which echoes US trends (Nair, 2017).

Mass consumerism and materialistic lifestyles

Central to youth culture in SA are elements such as music, trends and fashions, thrill-seeking behaviour and social awareness that is dominated by consumption (Everatt, 2000) driven by extensive access to powerful internet and computing technology (Malila, 2013; Tomlinson, 2016).

A highly sexualised culture and extensive use of contraceptives

Students appear highly sexualised, with a study of female undergraduate students in Gauteng finding that 74% were sexually active, of which 79% reported using contraception. Contraception uptake among students appears to be higher than in the general population. The average age for having a first child for graduates is 25, compared to 19 for those who have not finished school (Coetzee & Ngunyulu, 2015).

Social and political disengagement

SA youth have been found to mistrust politics and political processes and mistrust the traditional news media (Malila, 2013).

Soudien (2011, p. 13) refers to young South Africans as “Erikson’s (1968) universal children” who are similar to young persons from other parts of the world, in that they experience comparable intellectual, emotional and spiritual needs, intense aloneness and lack support in making important life decisions. This is supported by research, with Bekker (2008) finding the erosion of traditional social

boundaries in SA, and Schenk (2015) noting that how young people spoke, dressed and carried themselves was influenced by the media and differed along racial and class lines.

Many of the characteristics of post-modern societies are indeed applicable within the SA context (Goneos-Malka, 2012). This is illustrated in Table 3.1 which presents evidence for the presence of Smith, Christofferson, Davidson and Snell Herzog's (2011) post-modern cultural factors in SA society.

Given that entering employment is one of the milestones of resolving Erikson's (1950; 1968; Erikson & Erikson, 1997) identity crisis, post-modern societies place a greater challenge for achieving this (Tomlinson, 2016). The labour market and how careers are managed has changed in that employment has become more insecure due to rapid technological developments, increased competition and an upsurge in nonstandard employment (Mortimer, Lam, & Lee, 2015); with those entering employment often being exposed to computers and the internet from an early age (Senior & Cubbidge, 2010). In addition, as many as 80% of current jobs may no longer exist in the foreseeable future due to technological advances and automation (Elliott, 2014), with technical skills and academic knowledge no longer being sufficient to obtain employment (Savickas *et al.*, 2009). Graduates are believed to require greater adaptability to navigate both the uncertain employment context as well as potential periods of under-employment and unemployment (Bezuidenhout, 2011; Fugate, Kinicki & Ashforth, 2004). The challenges in the post-modern employment market require graduates to take greater responsibility for their careers by being proactive in their career management and in enhancing their employability (Coetzee, 2008; Fugate *et al.*, 2004).

An important aspect in determining whether individuals can resolve the identity crisis in their environment is their degree of agency. Côté (1996) hypothesised that individuals can vary in their degree of agency with which they explore their potentials and foster their strengths. The role of agency in ego-identity formation is outlined in the next section.

3.5 Agency in ego identity formation

Human agency is an individual-level attribute consistently linked with individual variations in identity formation (e.g. Schwartz *et al.*, 2005). It is also a central construct within Erikson's (1950; 1968; Erikson & Erikson, 1997) ego identity theory. It assumes that individuals can make choices regarding the actions they take in creating their life course, within the boundaries created by their socio-historical contexts (Elder & Kirkpatrick Johnson, 2002).

Agency plays a particularly important role in Erikson's (1950; 1968; Erikson & Erikson, 1997) stage of identity versus identity confusion, which also formed the foundation for Arnett's (2000, 2007a, 2015)

stage of emerging adulthood. The sociological construct of individualisation and the psychological construct of individuation are significant here (Côté & Schwartz, 2002). Individualisation refers to the fact that individuals are becoming more self-aware and are required to choose an identity from a progressively complex and diverse range of options (Wallace in Côté & Schwartz, 2002). It marks the ascendancy of the individual's psychological separation from the parents, which begins in infancy (Levinson in Côté & Schwartz, 2002) and denotes the process that children go through to gain a sense of self whilst struggling to attain emotional independence from their parents.

The idea of agency is fundamental to the structure-agency debate, i.e. the dispute between the view of the individual as an agent who makes choices out of free will, as opposed to being controlled by social structures such as class, cultural traditions, norms, values and other social customs. It dates back to the philosophy of Aristotle and permeates the social sciences (Elder-Vass, 2010; Germov & Poole, 2015; Tholen, 2013). Central to these two views is the understanding of how an individual's agency is construed and operates. Sen (1999, p.19) defines an agent as "someone who acts and brings about change"; and similarly, Teschi and Derobert (2008) state that agency requires the agent to take responsibility in evaluating their aims and desires. At the same time, the agency enjoyed by the individual is inevitably defined and inhibited by available economic, political and social opportunities (Sen, 1999).

This has the implication that not all individuals are able to convert their skills and abilities (human capital) into opportunities, such as employment, in societies dominated by inequalities and a lack of social justice (Sen, 1993, 1997, 1999; Nussbaum & Sen, 1993). The following section reviews two approaches that have attempted to classify how the emerging adults engage with their identity crisis.

3.6 Approaches in resolving the identity crisis

Erikson (1950; 1968; Erikson & Erikson, 1997) regarded the core virtue gained with the positive or syntonic resolution of the identity crisis as an inner sense of fidelity or purpose in life. The individual has developed a clear world view of who and what they are in terms of their value system and career choice, which provides them with a sense of purpose.

The dystonic or negative outcome is identity confusion, where the adolescent rejects adult values and roles (Erikson, 1950, 1964, 1968; Erikson & Erikson, 1997). This is expressed as a hesitancy or slowness in the willingness achieve their potential, or even to take up a defiant identity that is seen as undesirable in the individuals' primary social context (Erikson & Erikson, 1997).

Erikson (1968) himself did not empirically test the outcomes outlined above do indeed result from his identity vs identity confusion stage. However, several theorists and researchers have attempted to do so. Among the most significant is James Marcia (1964, 1966) who proposed a set of distinct styles employed by individuals in this developmental stage to resolve the identity crisis. Underlying his work is the assumption that there are multiple ways in which to form adult identities in post-modern societies (Côté & Levine, 2002).

3.6.1 Marcia's ego identity statuses

Marcia (1964, 1966) expanded on Erikson's (1950; 1968) two outcomes of identity attainment and identity confusion. He proposed four statuses, namely (i) the moratorium status, designating individuals exploring the various aspects of identity, but who have not yet committed themselves; (ii) the foreclosure status, denoting individuals who have committed to a particular identity by taking on the attitudes and belief of their parents without first considering or exploring other options; (iii) the diffusion status, signified by an absence of exploration of identity and lacking a commitment to an identity; and (iv) the identity-achievement status, denoting individuals who have undergone a phase where they have investigated different identity options and have developed a strong ego identity. In order to identify which status to ascribe to an individual Marcia (1966) developed the semi-structured Identity Status Interview (Marcia, 1966), which was later adapted into the Ego Identity Incomplete Sentence Blank (Marcia, Waterman, Matteson, Archer & Orlofsky, 1993). Research found, amongst others, clear differences in ego identity statuses (Marcia, 1980), that ego identity differences are not gender specific (Waterman, 1985), and that individuals with more mature identity statuses perform better in resolving critical ego-identity tasks (Kroger & Marcia, 2011).

3.6.2 Côté and Levine's identity strategies

Côté and Levine (2002) provided an alternate typology of strategies. They assumed that the process of identity formation comprises individualised strategies that vary between those that are well planned and those that are disorganised due to the individual's ongoing struggle with inner conflicts and a lack of resources. They identified five specific individualised strategies summarised in Table 3.2 below. Côté (2006) developed the Identity Stage Resolution Index (ISRI) to measure the type of strategy used by an individual which was validated longitudinally by Luyckx, Schwartz, Goossens and Pollock (2008).

Table 3.2

Côté and Levine's (2002) identity strategies

(i) Refusers
Adopt a number of defences with which they attempt to reject admission into adulthood, including self-sabotaging cognitive schema that are child-like, such as a chosen dependency on others (e.g. parents, family, lover) or something else (e.g. drugs, alcohol, electronic gaming) and possess limited personal resources that prevent them from actively engaging in an adult community.
(ii) Drifters
Similar to refusers but are differentiated by the fact that they possess more personal resources such as higher intelligence, personal or family wealth, or work-related competencies. However, they appear incapable or unwilling to apply these resources consistently or continuously.
(iii) Searchers
Have not given up striving to find an adult community through which they feel validated. The challenge is that the searcher has unrealistically high standards by which he or she judges what is being searched for, resulting in the individual moving from career to career, place to place, or religion to religion, without really being satisfied.
(iv) Guardians
Are likely to have been exposed to a well-structured childhood which enables the individual to develop a repertoire of resources to actively master the adolescent environment and progress into adulthood, comparatively quickly. The challenge is that critical developmental experiences that enable the individual to grow a unique ego identity may be missed. This may occur due to over-identification with the parent resulting in being excessively inflexible in their relations with others and their approach to self-development.
(v) Resolvers
Are actively involved in reaping the benefits that post-modern societies offer in establishing adult identities. They are agentic in enhancing their intellect and emotional intelligence, together with their vocational skills and abilities being embedded in their overall interests and capabilities

The employability and ego-identity literature overlap here as Holmes' (2001, 2003, 2015) modalities of graduate employment (see Section 2.3.6.3) follow a similar approach to Marcia's (1964; 1966) identity statuses and Côté and Levine's (2002) identity strategies.

Erikson (1968, Erikson & Erikson, 1997), Arnetts (2000, 2007a, 2015) and Côté (1996, 1997, 2002) emphasise the importance of the individual having access to the necessary resources to resolve the identity crisis using appropriate strategies and consequently being employable. Côté (1996, 2002, 2005) sought to identify the identity capital resources that can assist the individual in the agentic

negotiation of their life passage and the accompanying formation of an adult identity in late modern society.

3.7 Identity capital

While both Kim (2010, 2017) as well as Ho and Bauder (2012) view identity capital as psychological resources that can be deployed Côté (1996) uses a broader approach to describe particular advantages and capacities that individuals possess that form part of their psychosocial characteristics. Identity capital thus refers to the net assets held by an individual at a particular time in terms of "who they are" (Côté & Levine, 2002, p. 143) and is agentic in that it encompasses the degree to which the individual has invested in developing their identity (Coté, 1996). Identity capital thus facilitates a less challenging path through society that is becoming progressively more uncertain.

The identity capital model holds that individuals can compensate for the challenges posed by late modernity by investing in different identity capital resources that contribute to the development of their ego identities (Côté, 2002). It also asserts that individuals who possess greater amounts of identity capital are more agentic in the process of exploring their adult identities and thus more prepared to realise their individualised life-course paths, despite major structural obstacles in their environment (Côté, 2002). Applied to the context of gaining employment, it would mean that individuals with more identity capital are more agentic and would be more likely to gain employment, despite the challenges presented by the labour market (see Section 2.3.8.1). Concurrently, the development and use of identity resources are understood against the background of a particular socio-cultural environment that impacts directly on the individual's opportunities to develop and use these resources (Côté, 2005).

The identity capital model thus allows for a comprehensive examination of the resources available to an individual and how these impact on the development of their ego identity (Côté, 1996, 1997, 2002, 2005). The feature that these resources have in common is that they comprise credentials that enable access to various social and institutional domains. Employment is an example of such a domain where the possession of certain capitals enables the individual to pass the gatekeepers (recruiters) to groups (organisations) they want to join, as well as facilitating acceptance by the established members of the group (existing employees) (Côté, 1997; Jay, 2013) or in entrepreneurial activity (Lewis, 2016). Luyckx *et al.* (2008) demonstrated that employed individuals demonstrate stronger identity commitments and greater senses of adulthood. Identity capital comprises progressive investments made in the self, including those related to employability, that, if done well enough, or long enough, they become a part of the self (Jay, 2013).

The concept of identity capital (Côté' & Levine, 1989, 1997, 2002, 2016) is closely allied with Bourdieu's (1986, 1998, 1990, 1991) ideas in that it holds that individuals must possess specific capital in order to progress socially. A vital dimension of the identity capital paradigm is that of individual agency, in that the individual takes an agentic role within their social context (Matthys, 2013).

3.7.1 Tangible identity capital

Tangible sources of identity capital include (i) financial resources, (ii) educational qualifications (human capital), (iii) socially rewarded capabilities (human capital), (iv) social connections (social capital), (v) speech patterns (linguistic capital), and (vi) parental social status (cultural capital) (Côté, 1996, 1997, 2002, 2005). Tangible identity capital is exchanged through emotional, symbolic or pragmatic interactions. There is some evidence that individuals from more privileged backgrounds have access to greater amounts of tangible identity capital (Côté, 1996; 1997).

The primary sources of tangible identity capital, together with their theoretical underpinnings, are reviewed below to illustrate how they are believed to impact on an individual's psychosocial environment.

3.7.1.1 Financial capital

Most commonplace definitions of capital refer to money, assets and possessions employed in the production of more wealth (Business Dictionary, 2017; Cambridge Dictionary, 2017; Dictionary.com, 2017; Oxford Living Dictionaries, 2017). The idea that capital can reside in the individual worker can be traced back to classical economist Adam Smith's 1776 book 'The Wealth of Nations' (Lin, 2004). Smith (in Skousen, 2007) believed that individuals are essentially equal and free to choose their interests and to bring their labour and capital to the marketplace.

One of the most influential analyses of financial capital, and how it impacts on the agency of the individual, can be traced back to the work of Karl Marx. Marx examined how financial capital emerged in the practices of commodity production and consumption from the unequal and exploitative relationships between the bourgeoisie (capitalists) and labourers (Lin, 2004). He viewed capital in purely financial terms in that it encompasses the surplus value from the values added to commodities through the production process and the accompanying exchange process through which further profit is generated (Marx 1844/2000, 1862/2000). The worker is alienated in the production process in that he or she is simply another commodity, equal to land, rents, and materials such as production facilities, technology, and transportation from which a profit is to be generated (Marx, 1862/2000; 1865/2000).

When examining financial capital in the SA context, it is notable that the annual median income (U.S. \$5,217/R63,960 in 2015) is relatively high and there are comparatively low levels (compared with other African countries) of absolute poverty with 26.2% of the population living on less than \$2 a day. At the same time, SA has one of the highest levels of financial inequality in the world with a Gini coefficient of between .066 and 0.70 (1 indicating absolute inequality and 0 absolute equality) (Bhorat, 2015). Access to financial capital is still broadly divided along racial lines (Babarinde, 2009; Leibbrandt, Wegner & Finn, 2011), despite the emergence of a strong black middle class (Marsh *et al.*, 2007; Mattes, 2015). This seems logical given that black SA citizens until the 1990's had limited access to many of the factors that impact positively on family wealth such as property ownership, high household income, quality employment, HE, inheritances and access to credit (Shapiro, Meschede & Osoro, 2013). There is a well-documented relationship, particularly in the USA, between academic achievement and race, but strongly mediated by the wealth of the family of origin (Spaull, 2016; Yeung & Conley, 2008) with the gap between rich and poor continuing to widen (Reardon, 2011). Ladson-Billings (2006) refer to "educational debt" resulting from long-term lack of access to financial capital that has also impacted on other aspects, for example, access to quality schooling and other accompanying social problems. In SA access to economic capital correlates strongly with gender, location and educational attainment in addition to race (Leibbrandt, Finn, Argent & Woolard, 2010; Ranchhod, 2010) and transgenerational wealth transfer explains a significant portion of SA's inequality in income (Piriano, 2014).

Black persons in SA are less likely to be economically active and white persons most likely to be employed (Ranchhod, 2010). The labour market in SA tends to value African and coloured workers less (Spaull, 2008) resulting in them generally gaining employment of mediocre quality and consequently earning less than their white counterparts (Salisbury, 2016). Even getting married generally increases wealth for white persons, as they are more likely than their black counterparts to possess a positive net worth (Shapiro, Meschede & Osoro, 2013).

Access to financial capital has a critical impact on the degree of agency and choice the individual can employ. Sources include family wealth linked to the quality of the home environment, more effective parenting behaviour in supporting and interacting with children, and attending better quality schools (Carmichael, Dilli & van Zanden, 2016; Van der Berg, 2007; Yeung & Conley, 2008). Economic capital, in the form of family wealth, correlates with employability, with students from more impoverished families being less likely to realise their career choices (Shumba & Naong, 2013), whereas those from more affluent families tend to earn higher starting salaries (Bloemen & Stancaelli, 2001).

In the discussion above, the importance of financial capital is evident in that it enables access to other forms of capital. In the second half of the twentieth-century scholars and policymakers have progressively used other conceptions of capital in attempts to explain differences in social and economic outcomes for individuals, organisations and societies respectively (Lin, 2008; Nahapiet, 2007). These so-called neo-capitalist theories diverge from classic capitalist theory in that they include workers themselves in the investment and return of capital (Lin, 2008). Two applications of the term have become part of mainstream discourses, namely human capital and social capital (Nahapiet, 2007).

3.7.1.2 Human Capital

The notion of human capital as a tangible asset is fundamentally an economic one which has been predominantly studied by economists attempting to place a financial value on the knowledge or skills acquired by an individual (Burton-Jones & Spender, 2011). Similar to physical capital generated through changing the physical properties of materials using tools, human capital is created through changes in the individual, brought about through the acquisition of skills and capabilities which enable the individual to act in new ways (Coleman, 1988). The concept of human capital implies that individuals differ in what they know as well as in their capabilities to perform different tasks (Burton-Jones & Spender, 2011). Human capital theory postulates that as an individual's human capital increases, so their income-earning capacity increases over time. Two useful proxies for human capital are the number of years an individual has spent in school and the number of years of work experience they have (Grootaert, & van Bastelaer, 2001).

The main driver leading to the consideration of skills and knowledge as human capital was most likely the realisation that the growth of financial capital in society was a poor predictor of income growth in most countries (Becker, 1993). The idea that education provides economic benefits, among others, goes back to the late-eighteenth century when economists regarded skilled individuals as an expensive instrument/machine whose long-term value would reward the costs of years of prior personal and academic development (Teixeira, 2007). Human capital differs from other forms of capital as it cannot be separated from the worker who acquires it, i.e. it is inalienable and untradeable (Blair, 2011).

Human capital has been conceptualised in detail through the work of economists Theodore Schultz (1960), Jacob Mincer (1958, 1993) and Gary Becker (1971/2017, 1976, 1993). They implied that human capital enhances human agency in that, through the development of skills and capabilities, the individual enhances their employability and potential to acquire financial capital. Becker (1971/2017, 1976, 1993) also introduced the notion of 'psychic incomes' noting that employment can also deliver

emotional and psychological benefits valued above financial ones. He further observed that individuals differ not only in the skills and knowledge obtained, but also in their ability to benefit from the human capital they have acquired.

In summary, the main ideas postulated by human capital theory are that education and training increase the cognitive capacity of the individual, which in turn increases their productivity which leads to an increase in earnings (Olssen, Codd & O'Neill, 2004). (See Appendix A provides a more detailed overview of how the understanding of human capital has evolved).

3.7.1.2.4 Human capital and employability

Human capital is valued both with regards to its impact on job performance through the application of knowledge and skills, as well as in terms of obtaining employment through the matching of qualifications to job requirements (Tomlinson, 2016). The human capital approach is particularly important in the SA context given that HE policy is currently dominated by the neo-liberal approach which views education as a significant investment resulting in opportunity and wage differences between graduates and non-graduates, as well as between different types of graduates (Walker & Fongwa, 2017). Students with a degree have a significantly higher probability of gaining employment than those without post-school qualifications (Branson, Leibbrandt, & Zuze, 2009). Individuals who pay more or attend higher status institutions are also likely to gain skills of a higher quality which allow the individual to reap greater benefit from employment opportunities in the labour market (Tomlinson, 2012).

Mincer's (1958, 1993) proposition that increased education leads to increased income has been confirmed in cross-national studies conducted in Organisation for Economic Co-operation and Development (OECD) countries. A population's overall level of educational attainment correlated with overall income levels (Cohen & Soto, 2007; De la Fuente & Doménech, 2015). Similarly, Becker's (1971/2017, 1976, 1993) viewpoint that not everyone benefits equally from their human capital is supported by research that found that university degrees produced more wealth for white than black individuals (Shapiro, Meschede & Osoro, 2013). Educational returns are also higher for men than women (Spaull, 2016; Salisbury, 2016).

Not everyone in SA has equal opportunities to acquire human capital in a divided educational system. Schools which historically served white scholars during apartheid remain predominantly functional, whereas those that served black scholars are still largely dysfunctional and fail to impart the necessary skills to facilitate pathways to higher levels of education (Spaull, 2016).

Volunteering, or taking up other unpaid work, is another crucial tool through which individuals can develop their human capital (Day & Devlin, 1998). Graduate programmes, internships and learnerships (which play a vital role in the SA context), provide similar opportunities in that the individuals can develop their technical, organisational and social skills, also providing the opportunity to develop their connections and prove their value to the job market (Smith, 2010). When such opportunities are poorly paid or unpaid, as often is the case, individuals from families with more savings and higher incomes are better positioned to take advantage of them (Egerton & Mullan, 2008).

Bourdieu (2006) criticised the human capital approach, in that despite its humanistic inferences, it does not progress past 'economism', as it disregards the reality that educational returns are dependent upon the cultural capital contained in the family. Whereas human capital theorists consider family and other individual characteristics such as gender and race, they treat these as intervening variables, as opposed to examining the process by which they impact upon human capital (Lin, 2004). The social capital approach attempts to address these issues by acknowledging both, the role of individual agency as well as the impact of social structures, in explaining human behaviour

3.7.1.3 Social Capital

Lin (2004, p.18) defined social capital as "Capital captured through social relations". Lin (2008, p.51) expanded on this by definition referring to social capital as "resources embedded in one's social networks, resources that can be accessed or mobilised through ties in the networks...". The idea underlying the social capital approach is that additional value is generated through investing in social relations. It differs from other forms of capital as it is intrinsic to the relationships between people, and does not form part of the person, or comprise a physical outcome of production (Coleman, 1988, 1990). There are two separate types of social capital: Structural social capital which is relatively objective and observable, comprises information sharing, collective action and decisions structured through recognised social structures, networks and roles, and is supported by rules, procedures and examples. On the other hand, social capital is more subjective and intangible, denoting collective attitudes, values, norms, and beliefs (Uphoff, in Grootaert, & van Bastelaer, 2001).

Consequently six distinct manifestations can be identified, namely: (i) access to both information and particular social groupings as a result of relationships; (ii) the willingness to trust other actors and thus enter into undertakings that involve risk; (iii) the construction of camaraderie resulting in supportive relationships; (iv) the power to control the actions of and impact on other actors in a social network; (v) a climate of trust and security in a network that enables the actors to function securely; and (vi) the validation of particular norms and values that strengthen a particular network (Esser, 2008).

Lin (2004) offered four explanations as to how social capital empowers the individual with a greater degree of agency. Firstly, greater social capital means a greater flow of information generated across social connections, with more informed individuals holding strategic and/or positions of power in society. These individuals can provide the individual with useful information regarding choices and opportunities that would otherwise not be available to them. Secondly, agency is increased through social ties with individuals who are decision makers who can exert influence on the people who play essential roles in decision making. Third, social ties and social credentials formed by means of acknowledged relationships may be regarded as a confirmation of the individual's social capital as this reflects their access to resources through social networks and relationships which extend beyond their human capital and which an organisation may regard as useful. Lastly, social relationships are thought to strengthen identity and recognition as they allow for the sharing of similar interests and resources.

Similarly, Côté (2005) argued that social capital is accumulated through the membership of particular groups, but also by virtue of social status based on age, gender and race, which act as 'passports' into various social and institutional realms. Social capital thus describes the internal social and cultural integration of a society, demonstrated through the norms and values governing interactions between individuals, as well between individuals and the institutions in which these are rooted (Côté, 2005). Côté (2005) then also referred to the intergenerational social capital of communities where parents transfer functional values and make networks available to their children in order to make the route to productive adulthood easier. Several useful proxies have been used to measure social capital, including the membership in local associations and networks (Grootaert, & van Bastelaer, 2001) which are also believed to contribute to the individual's employability.

Social capital comprises amassed labour that can take either an actualised or embodied/latent form, much the same as financial capital, which can be used for a purpose, or banked to be used at a later stage. When an individual (agent) or group of individuals take exclusive ownership of this, it empowers them to take control of social energy and therefore to achieve their goals in society. Social capital has the potential to generate returns and replicate itself in an identical or extended form, encompassing a propensity to continue which has the consequence that all things (e.g. education, employment) are not equally possible for all individuals in a society (Bourdieu, 2006).

The theories of James Coleman (1988), Robert Putnam (1993, 1995, 2000) and Pierre Bourdieu have been acknowledged for their contributions to the understanding of the functioning of social capital in enhancing agency and accompanying employability (Halpern, 2005; Mander, 1987; Matthys, 2013; Svendsen & Svendsen, 2009). Although their theories deal with similar constructs, they explain these from different perspectives and have thus been outlined in the appendix only (see Appendix B).

3.7.1.3.1 *Types of social capital*

Social capital can be bonding or bridging (Katz & Aspden, 1997; Putnam, 2000). Both forms are not mutually exclusive, but instead comprise different dimensions of the resources available in a social network (Burke & Kraut, 2011). Bonding social capital is formed when close-knit relationships arise between individuals with comparable backgrounds, values and interests that reinforce exclusive and homogenous identities (Putnam, 2000). Bonding capital comprises emotionally close relationships with family members and close friends, enabling camaraderie, reciprocity and emotional support, however much of the information provided in these networks tends to be superfluous (Wellman & Wortley, 1990).

Bridging social capital creates connections amongst diverse groups across a wide range of resources or opportunities, connecting individuals from diverse backgrounds from within and outside a community (Narayan & Cassidy, 2001). It provides access to valuable information, which exists within a wide variety of weaker ties between individuals from a diverse range of social contexts (Granovetter, 1973). These acquaintances, though not necessarily providing emotional support, expose and connect the individual to a wide range of external groups and varied perspectives (Burke & Kraut, 2011) such as employment-related information.

Woolcock (2001, 2005) identified a third type, namely linking social capital, which is concerned with vertical relationships with authority figures that serve to provide access to power and resources. Vertical connections may exist entirely outside the individual's community and provide opportunities for entry to broader networks and the potential to leverage a wider range of resources (Coalter, 2007). These links comprise connections with individuals or groups forming part of public organisations, schools, businesses, legal establishments as well as religious and political groupings (Healy, 2002). It differs from bridging social capital, which comprises horizontal trust amongst diverse groups, in that the power differences are a conscious part of the relationship, encompassing typical benefactor/client or mentor/mentee relationships (Schneider, 2006).

Similarly, Granovetter (1973, 1995) distinguished between strong and weak ties. Strong ties are associated with relatives, nearby neighbours and close friends and the connections of elite cliques. Weak ties include a wide range of relationships between acquaintances serving to bridge social boundaries. They are characterised by infrequent interactions and low levels of intimacy. Granovetter (1973, 1995) maintained that weak ties are empowering in that they, for example, enable impoverished individuals with access to new opportunities. The core hypothesis is that the individual's agency increases through weak ties that create bridges to social circles and information which would

not usually be available to them and which in turn may facilitate access to resources such as employment information. In the context of this thesis, an understanding of these different types of social capital contributes to understanding how social capital links to the individual gaining employment.

There are various contexts that contribute to the development of social capital which are discussed in the next section.

3.7.1.3.2 Developing social capital

Religion is believed to be an important tool in developing social capital and thus creating opportunities to enhance the employability of the individual. However, religion in the SA context is believed to impede social cohesion as it is generally exercised along racial and economic lines (Cloete, 2014). This is in line with Putnam and Campbell (2010) who regarded religion to be both a unifying force, creating connections and relationships which generate social capital, and simultaneously being divisive. Similarly, Skinner, Zkus and Cowell (2008) argued that sport is a useful instrument for building social capital in that it facilitates community development and sustainable relationships.

Race plays a role in the acquisition of social capital in that racially diverse communities are thought to hamper the transfer of social capital (Putnam, 2000). However, Letki (2008) found that the social status of a neighbourhood correlated with the transmission of social capital. Social capital transmission was lower in neighbourhoods with greater economic inequality and racial segregation (Portes & Vickstrom, 2011; Rothstein, 2015; Roscigno & Ainsworth-Darnell, 1999). Both race and inequality are critical issues in the SA context, which is still significantly divided along racial and economic lines.

Although contemporary urban life offers fewer opportunities for the development of social capital the role of social networking sites cannot be ignored in terms of their potential to develop and enhance social capital (Blokland & Rae, 2008). Social networking websites, which are virtual communities, allow individuals to connect and interact around particular interests, such as employment, online (Murray & Waller, 2007). They have created a new and powerful domain for collaboration and communication with over a billion individuals inter-connected across the world (Cheung, Chiu Lee, 2011). The development of online social networking sites has provided a new drive towards building and developing connections for career management (Benson, Morgana, & Filippaios, 2014) as they enable individuals to engage in trust-based relationships through the reciprocal sharing of resources (Bucholtz, 2015). Both, social capital and community participation, has been positively linked with

individuals seeking information, including about employment, via social network sites (de Zúñiga, Jung & Valenzuela, 2012).

Two of the most noteworthy social networking sites associated with the development of social capital are Facebook and LinkedIn. Facebook is used for instant communication and connection with friends (Cheung, Chiu, & Lee, 2011). In 2017 Facebook had close to two billion subscribers worldwide (Internet World Stats, 2018a), with 16 million (52%) of SA's internet users being subscribed (Internet World Stats, 2018b). Ellison, Steinfield and Lampe (2007) found a strong association between Facebook usage and maintained (staying connected with members of a previously inhabited community), bonding and bridging social capital. Similarly, Burke and Kraut (2011) found that increased bridging social capital was associated with the number of messages received from friends. In the context of this thesis, the implication is that Facebook, although not focussed on employability, enables the individual to build and maintain their social networks which may provide information and support relating to employment.

LinkedIn focusses on professional networking aimed at connecting experts, sharing business-related information, as well as exchanging job related information (Pinckaers, Rienties, & Vroemen, 2011) and has more than 546 million users in 200 countries (LinkedIn, 2018). Of these 30% are 18-24-year-olds, 43% are in a decision-making role, and 49% have ten or more years of work experience (Marketingmojo, 2017). Having many LinkedIn links, including a sufficient number of weak links with powerful connections, increases the probability of users receiving useful job information (Rienties, Tempelaar, Pinckaers, Giesbers & Lichel, 2010). Similarly, Garg and Telang (2012) found that the number of contacts increased the probability of generating weak ties, which are useful in producing job leads, although strong ties played a critical functional role in producing interviews and job offers (Garg & Telang, 2012). Conversely, Buettner (2016) found a significant negative relationship between the number of contacts an individual has and obtaining employment, whereas knowledge of online sites job search functions proved to be a better predictor of gaining employment.

Although LinkedIn plays an important role in developing an individual's social capital and consequent employability, there are several other ways in which social capital impacts on employability.

3.7.1.3.3 *Social capital and employability*

The value of social capital to employability lies in both, the awareness of and access to knowledge relating to employment opportunities (Tomlinson, 2016). As outlined in the previous section social capital is a complex phenomenon with numerous dimensions (Letki, 2008). The accumulation of adequate social capital of social capital is a delicate process. It can take years to develop, and can be

easily damaged (Cloete, 2014). Social capital also operates differently in different communities, for example middle-class areas generally have a number of formal groups which the individual could join, though in impoverished rural communities this is often not the case (Vermaak, 2009).

Social capital is considered an essential aspect of employability as it facilitates access to the knowledge of others, creating a wider knowledge pool (Garavan, Morley, Gunnigle & Collins, 2001). Networking serves to facilitate access to industry knowledge and information about employment prospects (Smith, 2010). Individuals with greater levels of social capital are believed to earn higher returns on their human capital, by accessing better quality employment and being more visible to superiors when employed, and thus progressing more effectively with their careers (Garavan *et al.*, 2001). The impact of social contacts is believed to be influenced by the race and gender of the job contact, together with the strength of the relationship and the contact's influence. However, research indicates that the advantages for job seekers are primarily dependent on their own social status (Smith, 2000).

Social capital thus has a powerful impact on an individual's agency and accompanying employability. Bourdieu (1984, 2006) expanded on the concept of social capital through the idea of cultural capital, which he regarded as including both tangible and intangible assets, that enhance agency and social mobility.

3.7.1.4 Cultural capital

Bourdieu's use of 'cultural capital' differs from the Marxist view of capital in that he argued that both tangible and intangible resources are essential for social positioning (Kloot, 2016). Bourdieu (1984) regarded cultural capital as being directly inherited from family, as well as being acquired in settings such as educational institutions.

The cultural practices of social classes, such as attending concerts, museum visits, tastes in literature, art and music are associated with educational level, type of educational institution attended, and with the family and community of origin. Taste judgements "function as markers of 'class'" through which individuals position themselves in society (Bourdieu, 1984, p.2). In that sense, cultural capital is related to academic capital: Whereas a qualification formally guarantees specific competence (human capital), the prestige of an institution promises that the qualification holder possesses a general culture, the extent of which is proportionate to the institution's prestige (Bourdieu, 1984).

Bourdieu further refers to informational capital, an aspect of academic capital, which is the vital information that parents may hold about the educational system and which they can use to assist their

children, regarding both educational choices and guiding them through the educational system (Bourdieu & Wacquant, 1992).

He used the concept of cultural capital to explain differences in academic success between children from different social classes, proposing that cultural capital occurs in three forms, namely the embodied, objectified and institutionalised state (Bourdieu, 2006). All of these are investments as there are costs in time and money associated with their acquisition.

The embodied state (attributes and practices) of cultural capital is mostly subjective, comprising habitus, i.e. the social practices and dispositions of both, the mind and body, acquired through socialisation which primarily takes place through the family, but also in academic institutions. Much of this transmission takes place unconsciously through social learning from other family members. Included here, amongst others, would be attitudes towards education, and the way in which the individual speaks and carries themselves which cannot be separated from the individual (Bourdieu, 2006). A practical example illustrating embodied cultural capital is the musical "My Fair Lady" based on George Bernard Shaw's Pygmalion, in which the main character, a Cockney flower girl, receives speech and elocution lessons from her mentor in order to pass off as a lady (Garebian, 2016).

The physical manifestation of cultural capital is the objectified state comprising material objects and media such as artworks, books, films, machines, and other cultural objects that are visible expressions of culture. Whereas these objects can be physically transmitted, i.e. bought and sold, which implies they are also economic capital, they can also be taken on symbolically by the individual, attaching particular significance, meanings or understandings to a cultural object (Bourdieu, 2006). These two forms of cultural capital, however, do not necessarily coincide, i.e. a member of a social group may take on all the symbolic meanings of the objects without owning them, whereas another individual may own the objects without taking on their symbolic significance.

The institutionalised state of cultural capital encompasses qualifications with a legally guaranteed value certifying a specific cultural competency, a distinction that can provide the individual with a material advantage (Bourdieu & Passeron, 1977). The institutionalised state differs from both the embodied and objectified state in that holders of qualifications are directly comparable and can even be exchanged in the labour market, making this the most direct conversion of cultural to economic capital. Bourdieu (2006) also notes that whereas embodied and physical cultural capital are primarily aimed at maintaining the status quo between classes in society, institutionalised cultural capital has a transformative character as academic qualifications grant individuals access to other social spaces to which they would not previously have had access. Both material and symbolic profits are dependent on the scarcity of the qualification, which changes over time (illustrated by de Grip *et al.*'s (2004)

labour market approach (see Section 2.4.2) and Brown *et al.*'s (2002) human capital approach (see Section 2.4.3). Converting financial capital into institutionalised cultural capital is governed by the chances of the profit offered by different qualifications. The chances of realising a profit from institutionalised cultural capital are influenced by both the individual's embodied cultural capital and their social capital.

DiMaggio (1982) in his cultural mobility theory, assumed that cultural capital has different value depending on a person's socio-economic background. Cultural capital can function as a path to mobility for children from low socioeconomic backgrounds, although not providing additional advantages to those from higher socioeconomic backgrounds. Several studies confirmed this. For example, male students whose fathers had low or medium levels of education benefited particularly from cultural capital (DiMaggio, 1982), children with greater levels of cultural capital had a greater probability of finishing school (Teachman, Paasch, & Carver, 1997), and cultural capital positively affected students' educational aspirations (Shahidul, Zehadul Karim & Mustari, 2015). At the same time, Goldthorpe (2007) argued that current trends in educational inequality are not compatible with the ideas of cultural mobility theory.

As Bourdieu (1991) identified linguistic capital as a powerful form of embodied cultural capital, which plays a fundamental role in exercising and acquiring other forms of capital it deserves special attention.

3.7.1.4.1 *Linguistic capital*

Bourdieu (1991) differentiated himself from linguists such as Saussure and Chomsky, who maintained that language derives from a store to which all actors have equal access, when he coined the idea of the linguistic marketplace. The linguistic marketplace describes how language exchanges create a structure which provides access to social and economic capital. Society establishes a dominant form of a language against which all other forms of that language are judged. The consequence is that actors capable of understanding and using the dominant form of the language, i.e. those who possess linguistic capital, are more easily able to enter employment and other dimensions of the social and economic marketplace (Goldstein, 2008).

Linguistic capital comprises issues such as the degree of fluency in a language which is valued over others or the socio-cultural understanding of the rules of language use in a particular field (Bourdieu, 1991). This aligns with Erikson (1974) who, although not referring to linguistic capital, had argued that the language acquired by an individual whilst growing up conveys to others a common field of understanding of facts, experiences and interactions. Linguistic capital impacts on the acquisition of

academic capital in that the classroom has a linguistic 'sense of place', where the participation of those who lack linguistic capital is constrained, or even silenced all together (Bourdieu, 1991).

Linguistic capital and agency are intimately related language competence enables the individual to both identify and discuss agency (Runyan, 2014). Agency in turn, is also a product of social interactions facilitated through the use of language, allowing the individual to understand themselves, to interpret what and who they are and what their potentials are (Deneulin, 2008; Mulhall & Swift 1992).

3.7.1.4.2 Current developments in the understanding of cultural capital

The two central premises of cultural capital are that it represents knowledge of, or capability associated with 'highbrow' artistic culture, and that it comprises a set of skills and insights into cultural practices, distinctly different from both technical skills and other forms of human capital (Lareau & Weininger, 2003). Matthys (2013) illustrated the importance of cultural capital when he found that the professional skills and capabilities of working-class graduates were insufficient to allow them to operate optimally in their chosen field, as they needed to understand particular social practices, conventions and attitudes in order to make effective use of associated business and social networks.

Cultural capital, measured by parents' education and economic status, is strongly correlated with academic achievement in general (Reardon, 2011), and secondary school achievement in particular (Cheng & Kaplowitzb, 2016; Sullivan, 2001). However, De Graaf, De Graaf, and Kraaykamp (2000) found that cultural capital via parental reading behaviour impacted positively on children's educational achievements, especially in the case of parents with low levels of education (Gaddis, 2012). Similarly, Tramonte and Willms (2009) found that cultural interactions and communication between children had the most potent effects on schooling outcomes. This speaks for cultural and human capital to be seen as distinct forms of capital.

Anderson and Hansen (2012) found that class inequalities increased with educational progression. Those with the highest levels of cultural capital received the highest grades, especially amongst more senior students. Cultural capital also has a significant positive impact on persistence in HE given that those with superior cultural capital tend to place a greater value on HE (Wells, 2008). Furthermore, the political system within which education takes place is significant as children from higher-status families gain more advantages from cultural capital under more liberal and free governments (Xu & Hampden-Thompson, 2012). These findings should be interpreted within the context that the higher social classes are able to impose standards on the educational system which are favourable to them (Lareau & Weininger, 2003).

Simultaneously, the view of cultural capital, measured as parental level of education, should be interpreted cautiously as a source of cultural capital given that other factors impact on the moving across social classes (Van de Werfhorst, 2010). Despite the fact there has been substantial educational growth in western societies among both middle and working classes (Van de Werfhorst, 2010), black parents, especially from lower social strata, are often intensely suspicious of the educational system given the historical legacy of discrimination. They are thus often critical and struggle to comply with the requirements posed by educational institutions (Lareau & McNamara, 1999). Social class correlates negatively with educational choices, with individuals from less affluent backgrounds often making more unfortunate choices (Van de Werfhorst, 2010; Lambert & Bates, 2015) i.e. choosing qualifications that have less value, or even where they have attained a more valuable qualification, they are in a weaker position to leverage the value thereof. Children from high-socioeconomic status (SES) backgrounds are also more likely to attend better quality schools enabling them to more efficiently convert cultural capital into educational success (Jæger & Møllegaard, 2017). Even if children from less advantaged backgrounds access good quality schools, they may not perform as well given that the schooling system tends to resemble the home culture of more advantaged children (Van de Werfhorst, 2010). At the same time, returns on cultural capital are greater in more deprived schooling environments (Andersen & Jæger, 2015).

Linguistic capital is linked to broader cultural capital in that cultural activities, possessions, communication, education and number of books at home, are positively correlated with reading-literacy (Xu & Hampden-Thompson, 2012). In the SA context, learners make use of their language repertoire to negotiate their positions and integrate into society (Bristowe, Oostendorp & Anthonissen, 2015). Class differences are exacerbated by linguistic capital which impacts upon academic performance, in that first language speakers generally perform better academically, especially at oral assessments. (Anderson & Hansen, 2012).

3.7.1.4.3 *Cultural capital and employability*

The role of HEIs in the generation of cultural capital and accompanying employment is fairly well documented. HEIs have traditionally served to provide graduates with legitimate qualifications, specific knowledge and skills sets, together with personal and cultural attributes valued by employers (Tomlinson, 2012). The expansion of HE has resulted in a broader mix of graduates that are more heterogeneous (Scott, 2005) who have placed a significant value on the brand and reputation of the university which they attended in terms of its' perceived employability of the institution (Rothwell, Jewell, & Hardie, 2009). However,

Cultural capital is thought to contribute to employability, as shared cultural awareness is linked to favourable appraisal of potential, together with the ability to integrate easily into the cultural practices of an organisation (Tomlinson, 2016). Tomlinson (2010) argued that employability is a social process mediated by how graduates position themselves within a fluid labour market. The value of skills and knowledge differs between the type of work and workplaces with graduates needing to understand how the 'game' operates (Clark & Zukas, 2013). To be able to do this, graduates require both traditional academic qualifications as well as cultural and interpersonal competencies (Tomlinson, 2012). Cultural capital also impacts on the graduates' career identities and orientation to the labour market with some developing stronger identities and orientations towards future pathways (Tomlinson, 2010). Middle-class graduates are often more adept at adding value to their credentials through their pre-existing cultural and social capital (Ball, 2003; Power & Whitty, 2006). At the same time, a greater number of individuals from lower social strata are accessing the labour market (Goldthorpe, 2007). These individuals may be less skilled at reading and interpreting employers' requirements due to their lower cultural capital (Greenbank, 2007; Savage, 2003; Reay, Ball, & David, 2006), which often impacts negatively on their employability.

Employability is then not a value-neutral concept as qualifications have different economic and professional returns depending on the holder's social class, race, gender and disability as well as the reputation of the qualifying institution (Burke, 2016; Morley, 2001). Cultural resources thus impact on the individual's agency and choices, given that they facilitate progress through the educational system and ultimately better-quality employment. At the same time, psychological resources, in the form of psychological capital available to the individual, and the individual's capacity to exercise the choices available, cannot be ignored. These psychological resources are distinct from other forms of capital (Luthans & Youssef, 2004; Luthans *et al.*, 2007).

3.7.2 Psychological capital

Psychological capital comprises the psychological resources available to graduates that enable them to proactively adapt and respond to unavoidable career challenges (Tomlinson, 2016). The roots of the psychological resource's perspective can be traced back to as early as 1954 when Abraham Maslow called for psychology to focus on human potential, examining issues such as optimism, contentment, growth and self-actualisation (Avey, Luthans, Smith & Palmer, 2010). Psychological resources are entities that are valued in their own right, or act as conduits in obtaining valued goals such as money, social support or employment (Hobfoll, 2002).

In the 2000s the term positive psychology emerged in the literature to refer to such psychological resources (Avey, *et al.*, 2010). Within positive psychology psychological resources refer to the

capacities that can be measured, grown and employed to improve the individuals' performance (Newman, Ucbasaran, Zhu Hirst, 2014). The four core sources of psychological capital are self-efficacy, hope, optimism and resilience (Avey, *et al.*, 2010; Luthans & Youssef, 2007; Luthans et al., 2007).

Notably, the positive psychological approach places agency within one of its core concepts, namely hope, in that hope reflects the capacity to conceptualize goals, apply 'pathway thinking', develop strategies to achieve these, and exercise 'agency thinking' through initiating and sustaining the motivation to use these strategies (Luthans *et al.*, 2004; Luthans, Norman, Avolio, & Avey, 2008; Snyder, 2000a, 2000b). Agency plays a central role within positive psychology's developmental perspective with the idea that human behaviour is regarded as volitional and is based on intrinsic drives or experiential stimuli (Little, Walls, & Malmberg, 2009).

Unlike the positive psychologists, Côté (1997, 2000) regards psychological resources psychological capital. Although the identity capital approach pre-dates positive psychology, is more appropriate to examine graduate employment as it is located within the human developmental trajectory where graduate employment forms a key task.

3.7.2.1 Intangible identity capital: Côté's agentic personality attributes

Côté's (1997, 2000) identity capital approach refers to psychological capital as the psychosocial vitalities and capacities that provide the individual with the means to understand and navigate the variety of social, work-related and personal opportunities and obstacles encountered in adulthood. A number of these vitalities combine to form an 'agentic personality' denoting individuals who are more effective at self-regulation and are driven to take control over their circumstances (Côté & Levine, 2002).

The development of intangible identity capital is affected by access to various tangible sources of identity capital (Côté, 1996, 1997, 2005). Côté (1996, 2005) coined the concept 'agency' to refer to the combination of different intangible identity capital resources that enable the individual to effectively manage the challenges relating to the formation of ego identity. Côté (1997; Côté & Levine, 2002) refers to these as psychosocial vitalities and capacities. The shared factor between the different forms of intangible identity capital is that they provide the individual with the means to understand and navigate the various social, work-related and personal opportunities and obstacles that they encounter in emerging adulthood (Côté, 1997; Côté & Levine, 2002; Luyckx, De Witte & Goossens, 2011). Côté (1996) identified 14 personality attributes that were thought to foster growth during the transition to adulthood, namely (i) self-esteem, (ii) purpose-in-life, (iii) self-monitoring, (iv) empathetic concern, (v) fantasy, (vi) personal distress, (vii) perspective-taking, (viii) social interest, (ix)

authoritarianism, (x) self-actualisation' (xi) internal LOC, (xii) external LOC, (xiii) ego strength and (xiv) ideological commitment.

Côté (1997) administered 14 personality scales measuring these attributes to a sample of 276 Canadian students. A principal component analysis of the summed subscale scores yielded two factors that explained 34.4% of the variance. Six variables, namely self-esteem, purpose-in-life, internal LOC, ego strength, self-actualisation, and ideological commitment had loadings of .50 or higher on the first component and were adopted as the qualities representing the agentic personality (Côté, 1997). The six scales were summed up to comprise Côté's (1997, n.d.) Multi-measure Agentic Personality Scale (MAPS) which showed (Cronbach Alpha .67). The MAPS scale indicated successful ego-identity development correlating positively with the Identity Status Resolution Index (ISRI (Côté & Levine, 2002).

Côté and Levine (2002, p. 24) labelled these six personality attributes as the "attributes of an agentic personality" with the underlying assumption that individuals who possess these attributes are more effective at self-regulation and are driven to take control over their circumstances. They referred to the agentic personality as an individual who possesses the mental capacity to interact on both a concrete and abstract level, within networks comprising diverse interests and adaptive capacities enabling him or her to combine diverse resources as required by different situations. Agency is related to freedom of choice. According to Sen (1992) freedom of choice implies the individual has the agency to choose what he or she values, however, this is limited by the resources available to them. The core argument with psychological capital, irrespective of the approach, is that some graduates possess higher amounts the related dispositions than others, which contributes to their agency (Tomlinson, 2016). The theoretical origins of each of Côté's (1997, 2000; Côté & Levine, 2002) agentic personality attributes are discussed below together with their relation to employability.

3.7.2.1.1 Self-esteem

Self-esteem, the first variable identified by Côté (n.d.; 1997) as a component of his agentic personality construct, has been used in the psychological literature in three broad ways, namely to refer to (i) feelings of self-worth (state self-esteem) which is as a self-evaluative emotion encompassing an individual's reactions to significant events that either threaten/humiliate/shame, or offer a boost/pride/pleasure to one's self-esteem, (ii) self-evaluations (domain-specific self-esteem) denoting how the individual appraises their specific capabilities and characteristics such as those related to their appearance, abilities or personality, and (iii) global or trait self-esteem spanning over time and different situations i.e. the way a person generally feels about themselves (Brown & Marshall, 2006).

Although these three uses of self-esteem are conceptually distinct, they are significantly correlated, with high self-esteem individuals tending to evaluate themselves more positively and having higher feelings of self-worth than those with low self-esteem (Brown, in Brown & Marshall, 2006).

Bandura (1997) argued that self-esteem centres on the individual's sense of self-worth, similarly Baumeister (1998) noted that it comprises the evaluative aspect of the self-concept which corresponds to a general view of the self as either worthy or unworthy. Coopersmith (1975; 1981) took a cognitive approach assuming that global self-esteem is a decision people make about their self-worth as summarised in his classic definition:

“The evaluation which the individual makes and customarily maintains with regard to himself: it expresses an attitude of approval and indicates the extent to which an individual believes himself to be capable, significant, successful and worthy. In short, self-esteem is a personal judgment of the worthiness that is expressed in the attitudes the individual holds towards himself.” (Coopersmith, 1967, pp.4-5)

Self-esteem is an essential aspect of ego-identity formation in that Erikson's (1950; 1968) second stage of autonomy versus shame and doubt contains the foundation of the individual's self-esteem. Based on the nurturing support of parents, the child is exploring their environment and learning new skills and thus has the opportunity to extend their autonomy, experiencing pride and self-esteem. Mann, Hosman, Schaalma and de Vries (2004) noted that Erikson pointed to the evolving nature of self-esteem in his theory in that the individual is concerned with their self-esteem and self-concept for as long as they are in the process of crystallising their identity.

Finally, self-esteem is regarded as a career meta-competency influencing employability (Baruch, 2004; Coetzee, 2008; Fugate *et al.*, 2004; Luthans & Youssef, 2007). It is related to career self-efficacy, (Brown, Reedy, Fountain, Johnson, & Dichiser, 2000), perceived employability (Fugate, Kinicki & Ashforth, 2004; Onyishi, Enwereuzor, Ituma & Omenma, 2015; Potgieter, 2011), higher wages (Goldsmith, Veum & Darity, 1997) and has been determined to act independently of biographical characteristics such as race, gender and age, which also correlate with employability (Potgieter, 2011).

3.7. 2.1.2 *Purpose-in-life*

Frankl (1959, 1963, 1979), credited with bringing the concept of purpose in life into prominence (Bronk, 2014), argued that individuals can find meaning, even in situations that may appear meaningless, and that purpose in life exists and needs to be discovered by the individual. In modern society, given that many individuals have the means to survive, the struggle for survival has diminished

and has been replaced with the question of the reason for survival. An alternative, but complementary view is suggested by the French existentialist philosophers Albert Camus and Jean-Paul Sartre, who held that whereas humans needed to live meaningful lives, life in itself had no meaning. For this reason, individuals have to decide on a particular meaning for their lives, i.e. they gave their lives meaning (Bronk, 2014). The fundamental difference between these authors is how meaning is achieved, with Frankl maintaining that purpose-in-life is searched for and discovered, whereas Sartre and Camus hold that the individual chooses their purpose-in-life. Both approaches would seem to hold that the individual takes an agentic role in obtaining meaning in their life. Crumbaugh and Maholick (1964, p. 201) define purpose in life as “the ontological significance of life from the point of view of the experiencing individual” a definition which appears to compliment both approaches.

Keyes (2009) argued that individuals with a high purpose in life have a high capacity to remain open to new experiences and challenges, seeking to enhance their potential through the continual pursuit of skills, talents and opportunities for personal development. They regard their existence as directed and purposeful, providing meaning to their present and past life. This aligns strongly with Erikson (1950, 1968) who regarded commitment, the first element of purpose, as a critical feature of positive identity development. To establish a strong and integrated sense of self, the individual needs to commit to a belief system, orientations and values (Bronk, 2014). Erikson (1980) noted that the adolescent starts to make choices regarding their value systems, that will lead to a self-definition that often comprises life-long commitments. Adolescents or emerging adults need to consider existential questions regarding what is worthwhile in their lives, what they feel strongly about and what they hope to accomplish, all of which relates to pursuing purpose in their lives (Bronk, 2014).

Purpose in life has also become a core element within psychology (Robinson & Oades, 2017). Although there are variations in the definitions, accumulated empirical findings show that experiencing a purposeful life correlates positively with psychological and spiritual well-being, psychological strengths and positive development (Ryff, 1989). Purpose in life has also been linked to higher levels of hope (Feldman & Snyder, 2005), having a calling (Hall & Chandler, 2005), meaning in life (Wrzesniewski, McCauley, Rozin, & Schwartz, 1997), sustaining health and well-being (McKnight, & Kashdan 2009), coping with emotional and existential suffering (Shin & Steger, 2014) self-efficacy and academic achievement (DeWitz, Woolsey, & Walsh, 2009) as well as greater income and net-worth (Hill, Turiano, Mroczek & Burrow, 2016).

Work provides a prominent foundation for a sense of purpose in life in general (Adams *et al.*, 2002) and when defined as higher career calling, it is related to higher life satisfaction, perceived employability, more work effort, greater use of career strategies and higher emotional regulation

(Praskova, Creed & Hood, 2015). Purpose in life relates to whether a career will be meaningful and plays a key role in the adolescent/ emerging adult deciding on a career or tertiary studies (Weiss, Skelley, Haughey, & Hall, 2004).

3.7.2.1.3 *Internal locus of control*

Rotter's (1975) LOC construct deals with the degree to which individuals believe they have control over the events in their lives as well as the capacity to cope with these events. Individuals with greater internal LOC believe that their destiny is contingent on their behaviour and actions, whereas those with higher external LOC believe their fate is contingent on chance or more powerful figures, regardless of their behaviour and actions.

Erikson (1968) argued that individuals with better developed ego-identities can more ably deal with fluctuating environmental demands than persons with less well-developed identities. LOC correlates positively with more advanced identity statuses (Adams & Shea, 1979), identity formation and ideological commitment (Delias & Jemigan, 1990) and ego identity instrumentality (Troy, 1996).

LOC plays a vital role in the psychological literature and research. In 1996 Skinner identified more than 100 psychological constructs which all included some aspect of LOC. A person's background is believed to play a role in LOC with Tomasik, Silbereisen and Heckhausen (2010) arguing that those with more advantaged backgrounds tend to have higher levels of internal LOC. However, Cebi (2007) found that LOC was not a significant predictor of educational outcomes once cognitive ability had been controlled for.

Internal LOC is believed to be rewarded in the labour market (Cebi, 2007). A meta-analysis of 222 studies confirmed a positive association of internal LOC with favourable work outcomes and job motivation (Thomas, Sorensen & Eby, 2006). Internal LOC has further been positively linked with the acquisition of human capital, seeking out new challenges and working hard (Cobb-Clark, 2015), disabled individuals gaining employment (Krause & Broderick, 2006) and determining self-esteem, which in turn was found to predict wage levels (Goldsmith, Veum & Darity, 1997). Although internal LOC, mediated by self-esteem, is positively correlated with students' self-perceived employability, this did not translate into job offers or increased earnings once employment had been obtained in Duffy's 2010 study. Likewise, Caliendo, Cobb-Clark and Uhlenborff (2010) found that individuals with greater internal LOC, though not more likely to be employed, submitted more job applications and set higher initial wages for themselves, and McGee (2015) found that they also spent more time searching for work.

3.7.2.1.4 *Self-actualisation*

Self-actualisation was first defined by Kurt Goldstein (1939/1995) as a dynamic life force leading to the maximisation of the individual's abilities in determining the course of their life. However, the concept was brought to prominence by the humanist psychologists Carl Rogers and Abraham Maslow in 1951 and 1954, respectively (Leclerc, Lefrançois, Dubé, Hébert, & Gaulin, 1998). Maslow's (1954) conceptualisation of self-actualisation related to the individual achieving their full personality potential in that their personality is integrated, non-defensive and self-accepting (Maslow, 1968). Similarly, Carl Rogers (1959) referred to the actualising tendency as a natural inclination for 'fully-functioning' individuals to engage in activities that are consistent with self-fulfilment.

Self-actualisation appears at the top of Maslow's pyramid of needs and is regarded as a "being-need" as opposed to the lower order needs viewed as "deficiency-needs" (Maslow, 1971, p. xv). Maslow (1971, pp. 162-163) defined his self-actualisation concept somewhat vaguely, as an individual "...becoming fully human...helping the person to become the best that he is able to become." A better understanding of self-actualisation is achieved using the seven behaviours of self-actualising individuals identified by Maslow (1971), namely (i) being open to experience life fully; (ii) seeing life as a progressive range of choices which may lead either to safety or growth; (iii) there is a self (identity) to actualise; (iv) being honest and taking responsibility with the self and others; (v) self-actualisation is both a continuous process and end result; (vi) they undergo 'peak experiences' at times; and (vii) they strive to identify and achieve who and what one is. Maslow (1971) links his concept of self-actualisation to identity, noting that identity discovery occurs through the individual's instincts and their ability to listen to gut feelings and inner reactions, showing strong parallels to Erikson's (1950; 1968; Erikson & Erikson, 1997) process of ego identity formation.

The self-actualisation construct forms a vital dimension of the identity formation process (Schwartz, 2002; Waterman, 1992), with vitality and integrity emerging when the individual successfully assimilates their true selves, making intrinsically motivated and self-determined behaviours possible (Deci & Ryan, 2008; Schwartz, 2002). Similarly, personal expressiveness is related to adaptive outcomes and processes, including intrinsic motivation and self-actualisation (Kernis & Goldman, 2006; Waterman, 1993, 2005).

Agency can be found at the heart of the humanist approach as it regards choice as being at the centre of human existence. Maslow (1971) noted that the individual continually makes choices which may be progressive or retrogressive, similarly Carl Rogers equated psychological growth with self-actualisation (Kvalsund, 2003), which relates to the movement and drive of the individual to achieve their full potential (Polkinghorne, 2001).

The relationship of employment to self-actualisation is less clear, with work considered to be a compulsory activity necessary in achieving other life goals, whereas self-actualisation is typically pursued through free-time activities (Fave & Kocjan, 2017). However, Maslow (1971) later theorised that some individuals transcend the self-actualisation process and become dedicated to a task, calling or vocation that surpasses the work/play dichotomy. Self-actualisation can also be likened to what Csikszentmihalyi (1990, 2014) termed 'flow', the potential for growth and sense of mastery experienced by an individual who senses their job performance as effortless and expresses the desire to master additional challenges. Though connections appear between employment and self-actualisation, the same cannot be said for employability as searches on various databases, including Eric, Ebscohost, Justo and Google Scholar did not produce any meaningful results.

3.7.2.1.5 Ego strength

The ego is a psychoanalytic construct based on the 'reality principle' (Bjorklund, 2008). The ego acts as a mediator between the individual's instinctual id drives and the demands made by the external world, striving to meet these in a reasoned manner that considers all facets of a situation (Pillay, 2009). Bjorklund (2008) identified a number of ego functions including reality testing, judgement, a sense of reality of the world and self, management of emotions and impulses, interpersonal functioning, managing thoughts and logical processes, adaptive regression, managing psychological defences, serving as a stimulus barrier, enabling autonomous functioning, the synthesis and integration of contradictory attitudes, values, emotions, behaviour and self-representations and the mastering of competencies.

Ego strength comprises the ability to delay impulses and adapt to societal demands (Kroger & Marcia, 2011), and the extent to which an individual exhibits emotional hardiness and adaptability when confronted with significant stressors (Preston, 2006). An individual with mature ego strength continues to function and does not collapse emotionally in the face of adversity. This does not mean that well-functioning individual do not experience emotions, but rather that these are experienced in a mature and modulated fashion. Ego-strength is at the very heart of Erikson's (1950, 1968; Erikson & Erikson, 1997) theory which maintains that all of the different developmental stages, right from the initial formation of trust, are involved in forming the ego identity of the individual.

Kern (2009) identified four core ego functions in relation to employability, namely (i) making appropriate occupational choices through projecting a psychological future, (ii) the delay function comprising the capacity to postpone gratification of needs, delay the attainment of cherished goals to produce more realistic and thoughtful career decisions, (iii) identifying the individual's resources and

abilities which enable them to make realistic occupational choices, and (iv) attitude in the form of motivation to attain the experience and credentials required to achieve career goals.

In empirical research, ego strength was found to increase self-perceived employability (Onyishi, Enwereuzor, Ituma & Omenma, 2015), and strongly impacted on the work engagement of nurses in China (Lu, Siu, Chen & Wang, 2011) with nursing graduates having significantly higher levels of ego strength than nursing diplomates six months after graduation (Bartlett, Simonite, Westcott & Taylor, 2000).

3.7.2.1.6 *Ideological commitment*

Ideological commitment refers to the magnitude to which an individual is committed to a defined set of values and goals, including those related to occupation, religion, political ideals and life-philosophy (Grotevant & Adams, 1984; Newman & Newman, 2008). Whilst the previously discussed components of Côté's (1997, 2000) agentic personality contribute to identity formation, ideological commitment is central to ego-identity development. The emerging adult is confronted with the crisis of forming ideological commitments, which comprises a commitment to work, religion, politics, morality and philosophy of living, as opposed to value confusion (Erikson, 1950, 1964, 1968). Erikson (1950, 1964, 1968) paid particular attention to the career domain arguing that the majority of adolescents and young adults are troubled by their inability to finalise that occupational identity. This finalisation contributes to creating a sense of fidelity, in the form of achieving a sense of purpose and feeling of belonging in society. Once obtained, the individual should be more goal-directed in their job-seeking behaviour and thus more likely to find employment.

3.8 **Review of research questions**

As outlined in Section 1.4 this study examines the ICMGE presented in Figure 3.2 below. The model predicts that the different sources of intangible and tangible identity capital (independent variables) based on Côté and Levine's (1989, 1997, 2002, 2016) identity capital model, will predict employment and the quality thereof (dependent variable).

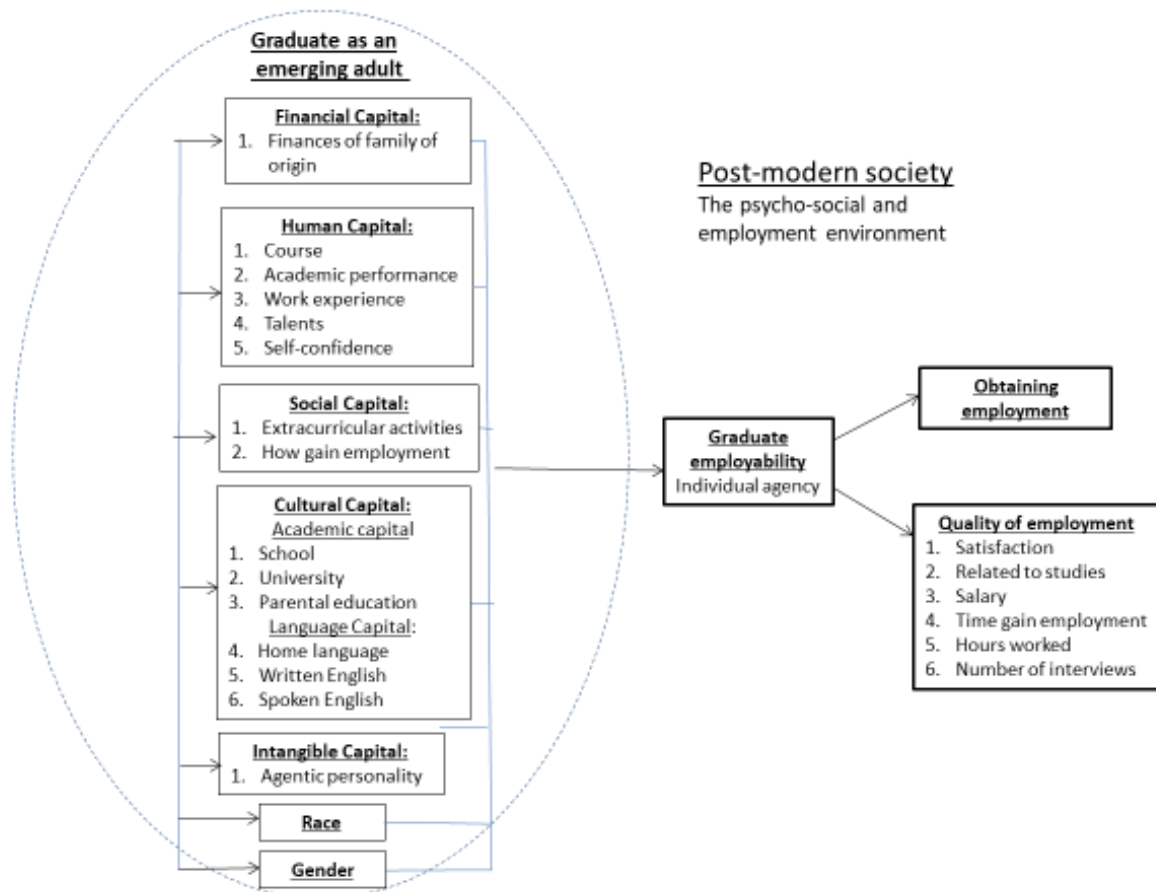


Figure 3.2: The Identity Capital Model of Graduate Employment (ICMGE)

The primary question that the study aims to answer is whether identity capital can predict graduate employment and the quality of this employment?

The sub-questions that this study aims to address are:

- How do the different sources of tangible and intangible identity capital correlate with one another?
- Which forms of identity capital best predict graduate employment?
- Which forms of identity capital best predict the quality of graduate employment?

Based on the literature review, the following propositions have been formulated:

- Proposition 1: Tangible sources of identity capital correlate positively with sources of intangible identity capital.
- Proposition 2: Both tangible and intangible sources of identity capital predict variance in graduate employment.
- Proposition 3: Both tangible and intangible sources of identity capital predict variances in the quality of employment obtained by graduates.

3.9 Conclusion

The present chapter presented the ICMGE that is tested empirically in this thesis after providing the theoretical foundation upon which this model is built. It is argued that graduates find themselves within Erikson's (1968, 1980, 1997) developmental phase of identity versus identity confusion in terms of their ego identity development. Whereas Erikson (1968, 1980, 1997) placed this phase within in adolescence, Arnett (2000, 2007a, 2015) introduced the concept of emerging adulthood, to take into account the fact that individuals in the modern world often take into their late 20s to take on a full range of adult responsibilities of which employment is a critical task which signifies entrance into adulthood. Graduate employability and employment are thus firmly placed within the developmental trajectory among emerging adulthood.

Agency relates to the degree of freedom and choice available to the individual to resolve their identity crisis. Several approaches classify how emerging adults resolve their identity crisis, one of which is Côté's (1989, 1997, 2002, 2016) identity capital approach which specifically focusses on resolving Erikson's (1968, 1980, 1997) fifth stage of identity versus identity confusion. The more agency an individual possesses, the greater their agency chance of resolving the identity crisis, and in turn, to find employment. Côté (1989, 1997, 2002, 2016) assumes the degree of agency to be determined by the different forms of identity capital available to the individual. In Section three the literature on capital, representing investments in particular types of resources and the processes used to acquire these was reviewed. Financial capital, conceptualised as access to money, assets and possessions, is very unequally distributed in the SA context, especially along racial lines. This is noteworthy given that financial capital links to the quality of home environment, effective parenting practices, access to quality schools, educational attainment, and gaining access to better quality and better-paid employment.

The individual can play a more active role in building their human capital, that is their knowledge, skills, capabilities and accompanying qualifications. Human capital approach plays an important role in HE policy in SA which is predominantly driven by the notion that education is an investment that results in better quality employment and that it will serve to eliminate many of the inequalities of our society. Individuals with higher-level qualifications are more likely to gain employment attracting higher incomes and graduates from higher status HE institutions are also more likely to be employed. This effect is also mediated by race and gender, in that these effects are more pronounced for both white and female graduates

Social capital encompasses relationships that provide particular advantages to the individual. Social capital's importance to employability is due to the fact that social networks can provide access to

industry knowledge and employment information. Individuals with more social capital earn greater returns on their human capital by accessing better quality employment and being more visible to superiors. However, the impact of social capital is mediated by social status, participating in religious and sporting activities amongst other. Finally, the role of social networks was emphasised with Facebook being found to enhance all forms of social capital. On the other hand the number of LinkedIn contacts relates to the obtainment of relevant job information, whereas strong ties in the form of personal relationships were associated with gaining interviews and job offers.

Bourdieu (1984, 2006) built on his conception of social capital with cultural capital, comprising the habits and dispositions inherited from family and other educational settings, which also enhance the agency of the individual. Informational capital, about how educational systems work, embodied capital comprising social practices and dispositions, physical capital in the form of books, machines and other cultural objects and institutionalised capital in the form of qualifications, are all elements of cultural competency. DiMaggio (1982) argued that the acquisition of cultural capital can facilitate social mobility, though research results are mixed. Finally, linguistic capital, comprising language fluency and accompanying social-cultural understandings of language, is recognised as a powerful form of cultural capital. The role of cultural capital has been confirmed in research, where 'middle-class' respondents gain access to better quality and better paid jobs. Parental cultural capital has been positively correlated with children's academic performance, and relationships are enhanced by linguistic capital. Cultural capital makes them more equipped to benefit from advantaged educational settings. Middle-class graduates are often more adept at benefiting from their qualifications, in that they have a greater understanding of how the 'game' operates.

Lastly, psychological capital is a valued resource that support the acquisition of valued tangible resource. The six dimensions of psychological capital that combine to form Côté's (1997, 2000) agentic personality construct, namely purpose-in-life, internal locus-of-control, self-actualisation, self-esteem, ego strength and ideological commitment, are part of this study and are discussed, together with their relationship to employability and employment.

The research problem that this thesis examines is thus how different sources of identity capital impact upon the employment of graduates.

CHAPTER FOUR

Research methods

4.1 Introduction

This chapter reviews the methods used in this thesis to examine the research questions presented at the end of the previous chapter. Firstly, the underlying ontological and epistemological assumptions are briefly outlined, followed by an overview of the research strategy and design employed. The procedure used to draw the research participants, together with the key characteristics of the sample, is then outlined. The data collection process, together with the limitations thereof, is then discussed. This is followed by an overview of the operationalisation of the various variables measured in the study where the different measurement instruments, together with the process used to develop these. Finally, ethical considerations are examined.

4.2 Ontological and epistemological assumptions

Research in all fields of the social sciences is grounded in fundamental philosophical assumptions with different research paradigms competing for dominance (Babbie, 2010; Kuhn, 2012; Rubin & Babbie, 2011). It is thus necessary to first examine the underlying ontological assumptions of this thesis as these affect all aspects of the research endeavour.

Ontology is a branch of meta-physics that examines the nature of being, i.e. assumptions about reality and how reality is perceived by each of us (Pittaway, 2000). The debate revolves around the extent to which reality is an objective reality versus a subjective phenomenon, that is experienced differently by each person. A deep-rooted epistemological division exists within the social scientific disciplines between objectivism that views social reality as a static independent entity free of human consciousness, and subjectivism viewing reality as a product of social constructions (Côté, 2006). Roy Bhaskar's critical realism (2008; Scott & Bhaskar, 2011) offers a middle ground, maintaining that an independent reality coexists with knowledge that is influenced by the socio-historical and socio-cultural context in which it is created. This view is particularly suitable for Côté's (1996, 2002, 2005) identity capital model. This is as it examines how an individuals' agency is influenced by their access

to the objective and subjective dimensions of identity capital, existing within the constraints of objective social structures.

Epistemology, on the other hand, is a subdivision of philosophy concerned with what knowledge comprises, how this can be acquired and characterised as factual or not (Parkinson, 1988; Pittaway, 2000). The question of causality in human behaviour dates back to the philosopher Plato who was concerned with the issue of human nature and if humans create value autonomously, or whether individuals live in a world instilled with value with contentment being achieved by conforming (Trigg, 1999). The epistemological debate centres around whether behaviour emanating from individual agency is determined by intrapsychic forces, external social-environmental forces, or some combination between these. The concept of agency, which is viewed as a combination of the intrapsychic and external forces which is central to Erikson's (1968) ego identity theory and Côté's (1996, 2002, 2005) identity capital model. By adopting critical realism, this study acknowledges that whereas agency is governed by individual choice, this is influenced by the broader socio-cultural context in which they find themselves that can be measured and about which generalisations can be made to the broader population.

The research design, which is the plan of action aimed at answering the research questions, is outlined below. Cowles and Nelson (2015) note that the four main components of a research design are the methods used to measure the variables, how the sample is drawn from the population, the process used to collect the data and how the data were analysed. The next section follows this structure.

4.3 Research design

To answer the research questions two empirically inter-related studies were studied. The primary study comprised a longitudinal, multi-modal research design aimed at exploring how different sources of identity capital related to graduate employment and the quality of this employment. A second, smaller study, aimed to explore the degree to which the 'experiential learning' employers' perceptions of student identity capital correlated with the student respondents measures thereof and their probability of being employed.

Both studies employ survey research which is predominantly based on the ontological assumption that reality is external to the researcher and can thus be described and predicted, whereas the epistemological assumptions are that knowledge rests on a firm reality from which firm inferences can be made (Wang, 2015).

Survey research is almost certainly the most effective method for a social science researcher to collect a large amount of original data to describe a population that is too large for direct observation (Babbie, 2010, 2011). The population for this study comprised the +/- 80, 000 HEI students in the Western Cape in 2015 (CHE, 2017). Data was collected from over 1, 000 respondents who provided more than 180, 000 data points were recorded, measuring a multitude of variables and sub-variables. Babbie (2010, 2011) further noted that survey research is an economical way to collect large amounts of data. In this study, the data was collected over approximately 15 weeks, was cost-effective in that each questionnaire cost +/-R15 (U.S. \$1.22), whilst additional telephone interviews conducted cost approximately R35 (U.S. \$2.86) each.

4.3.1 Study one: Longitudinal multi-modal survey research

Longitudinal designs allow for the respondents to be observed over a period of time in order to examine changes that may occur (Aldridge & Levine, 2001; Babbie, 2010, 2011; De Keulenaer, 2008). The most common longitudinal design is the panel in which the same respondents are measured on more than one occasion, providing information regarding changes in the characteristics of a population over time (Kim, 2008; Liu, 2008; Trobia, 2008b).

The key advantage of longitudinal designs relates to their purpose, in that they allow for repeated measures over time, revealing change or growth in dependent variables that are difficult to determine using cross-sectional research designs (Kalaian & Kasim, 2008). This was particularly appropriate in the context of this study, given that the dependent variable was student employment a year after graduation. Olsen (2008) further noted that longitudinal designs generate large amounts of complex data that needs to be managed effectively by the researcher, a key consideration in this study given the 180 000 data points recorded.

A disadvantage of longitudinal research is that complete data is usually not available for all respondents at different points in time due to attrition (Babbie, 2010, 2011; Kalaian & Kasim, 2008; Kim, 2008; Mulry, 2008). Some of the reasons for this attrition include respondents no longer willing to participate at later times in the study, respondents' contact details no longer being valid, and the expenses related to locating missing respondents (Kim, 2008). The key threat associated with the attrition of research subjects is the possibility that those who drop out are atypical and thus distort the results of the study (Babbie, 2010, 2011). The tracking and tracing of missing respondents can thus, also play an essential role in longitudinal studies (Diaz-Hoffman, 2008). Particular attention was paid to this aspect of the design when collecting the data as described in Section 4.3.1.2.

Multi-modes of survey delivery are increasingly being used in research, taking into account the advantages of different modes (Dillman, Smyth & Christian 2014). These survey designs are also referred to as 'mixed-mode surveys', comprise the collection of information from the same research respondents using two or more survey modes and the survey mode can change for different phases of data collection (Christian & Foster, 2008). The modes of delivery differ in the degree of control available to the researcher varying between interviewer-administered surveys, telephone interviews also administered by interviewers, and mail and web surveys which are mostly self-administered (Cowles & Nelson, 2015).

This research study made use of two survey modes. Individual self-administered questionnaires which were administered to large groups in person which allowed the interviewer to explain questions and other key issues such as the ethical aspects related to the study. The independent variables, indicators of student identity capital, were measured using self-administered survey questionnaires distributed in large group settings. The researcher had direct access to respondents in classes and other group settings at their various universities.

Telephone interviews were used to collect follow-up data which allowed for personal contact between the interviewer and respondent and accompanying control in the administration of the survey in that questions not answered adequately could be probed (Aldridge & Levine, 2001; Cowles & Nelson, 2015). The follow-up data relating to the dependent variables, namely employment status and quality of employment, was collected a year later. At this point the respondents had left university making telephone surveys necessary as the researcher no longer had direct access to them.

4.3.1.1 Self-administered survey questionnaires: Measuring identity capital

Self-administered paper-based questionnaires are survey instruments completed independently by respondents, even though a group of individuals gathered together may work on completing their questionnaires at the same time (Babbie, 2010, 2011). A paper-based self-administered questionnaire was used to measure the independent variables, namely student identity capital. Advantages of this method included that they were cost-efficient [+/- R15 (U.S. \$1.22) per questionnaire], quick to administer and that data could be collected from large numbers of respondents (up to 100 in a session of +/- 30 minutes)

Hugick and Best (2008) noted that well-designed surveys tend to result in higher response rates. This was evidenced in this study, with very few of the respondents electing not to participate ($N < 20$ in total). Surveys allow for a wide variety of questions to be asked relating to a topic of study. This was

the case here as an extensive and detailed survey instrument was used (see Appendix C). This allows for the in-depth description of a large sample (Babbie, 2010, 2011).

One of the critical challenges of survey research is incomplete questionnaires (Courser, 2008). However, this was not a significant liability for this study as only 14% (142/1,014) of the initial respondents were excluded because of missing data. Other challenges include possible question order effects (Oldendick, 2008) and the fact that bilingual respondents may hesitate in answering certain items or interpret these differently (Brown, 2008). Language was a possible issue in this study, given that most of the respondents in the final sample (72.4%, $N = 631$) indicated they were not first language English speakers. These issues were addressed in the thorough process followed to safeguard the instrument's reliability and validity (see Section 4.7).

4.3.1.2 Telephone survey measuring employability

Telephone interviews comprise interviewer-administered surveys with more personal contact than self-administered surveys, given that the interviewer can control the administration of the survey (Cowles & Nelson, 2015). Telephone surveys were employed for the follow-up data collection to measure the employment status of the survey participants approximately one year after they were due to have completed their studies. It was decided to use telephone interviews as this was the most efficient way in which to access respondents and encourage levels of participation given that they were now widely dispersed.

The data was collected by the researcher and a trained male, Xhosa research assistant. Rea and Parker's (2014) training guidelines of following a two-pronged process for training research assistants were adhered to. First, the research assistant underwent general training related to conducting telephone interviews. The researcher then modelled good interviewer behaviour by conducting telephone interviews in his presence. Finally, the research assistant was monitored during his initial interviews and provided with feedback and additional guidelines relating to his performance.

Interviews are social interactions between the interviewers, respondents and questions, which takes place in the context of a particular society, community and culture (Gorden, 1987), with interviewer characteristics such as race and gender in relation to interviewees possibly influencing the interview process (Cowles & Nelson, 2015). This was evident in this phase of the study as the research assistant, from the same age cohort as well as the same racial and language group as many of the respondents, as observed by the researcher, was able to create rapport with most of the respondents during the telephone interviews being able to explain and elaborate on questions in Xhosa, English and Afrikaans. He was able to interact in a culturally appropriate mode such as engaging in informal conversation not

directly related to the research to develop rapport (Knight, Roosa, Caledón-Tena & Gonzales, 2009). This may be the reason for being able to obtain data from 58.1% of the respondents who had completed the initial study. It needs to be noted, however, that as telephone interviews are interviewer-administered, there may be a propensity to provide socially desirable responses based on the perceived age, race or gender of the interviewer. By selecting a Xhosa speaking research assistant who fell within the age range of the respondents and to whom they would more likely relate to, it was hoped that the impact of social desirability bias would be limited.

Several advantages of telephone administered surveys identified by Rea and Parker (2014) were demonstrated in this phase of the study. These included (i) allowing for relatively quick data collection. In this case, it took around ten weeks to collect the data from 508 respondents; (ii) being cost-effective at around R35/interview (including call costs and data recording); (iii) the environment was less threatening allowing for a degree of rapport to be built with respondents, as evidenced in the 'easy' interactions between the research assistant and respondents; (iv) it was possible to assure the quality of responses by ensuring that all questions in the interview schedule were appropriately answered; and (v) the interviewer was able, and encouraged during training, to clarify the respondent's answers to obtain additional information.

4.3.2 Study two: Survey of the University of Technology experiential learning supervisors' perceptions of student identity capital

Surveys are suitable to generate data to determine correlations between variables (Aldridge & Levine, 2001), and this was why survey research was selected for study two. This study aimed to examine how the experiential learning Supervisors' perceptions of students' identity capital correlated with their own perceptions of identity capital as measured by the survey described in Section 4.3.1. Telephone interviews were used to contact the supervisors of respondents who had participated in experiential learning through a three-month workplace placement. All of the University of Technology respondents studied at the same HEI as this was the only HEI in the study that included workplace placement in its' curriculum. The respondents provided their contact details in the initial sample survey. It took around three weeks to collect the data and data was obtained for around 37% ($N = 94/257$) available respondents at the time.

4.4 Data collection procedure

The data used for the two studies presented in this thesis were collected at three points in time using the processes outlined in the following sections. The data collection procedures described below were approved by UCT's Faculty of Commerce Ethics in Research Committee (see Appendices D and E).

4.4.1 Data collection: Study one

In study one, the data measuring students' identity capital was collected from final year students during the third quarter of their final year of study (July – September 2015) resulting in $N = 1014$ respondents of which $N = 872$ provided sufficient information to be included in the study (see Section 4.5.5.1 for an outline of how the final sample size was reached). The data relating to their employment was collected via a telephone survey a year later.

4.4.1.1 Self-administered survey

A University of Technology, two traditional universities and two private HEIs were approached and permission requested to collect data from third-year students following their respective prescribed process [see Appendix D for institutional permissions]. The researcher used slightly different strategies to access the respondents from the five different HEIs. In the case of the University of Technology respondents, who comprised the most substantial part of the sample ($N = 649$, 64%), the researcher had considerable social capital (in the form of contacts) in that he was a full-time employee of the participating University of Technology. He approached several fellow lecturers who agreed to grant access to classes they were lecturing resulting in access to respondents from 11 courses. An additional three groups were students in courses lectured by the researcher. Access tended to be granted for the last 30 minutes of a 90-minute class, i.e. after the lecturer concerned had first conducted a lecture. The size of the groups varied between 24 and 76 respondents.

The researcher had several contacts at the first traditional university given that he had been a part-time lecturer at the institution for several years. Data were collected from three groups of respondents with the researcher playing a slightly different role in each instance. In the first group of third-year sociology students, the researcher provided an overview of the current study as a guest lecturer. The second group of respondents comprised third year accounting students. Here, the researcher was given 30 minutes access at the end of a class. The final group consisted of industrial psychology students to which the researcher had provided a guest lecturer and then used the last part of the class to conduct the research.

Access was gained to a group of third-year organisational psychology students at the second traditional university through the researcher's supervisors. Data was collected at the end of a research methods class in which the researcher had provided an overview of this study as a guest lecturer. Access to a group of final year fashion design students at a private HEI, was facilitated through the Chief Executive Officer (CEO) whom the researcher met at a workshop. The institution arranged a special session with their final year students, during which the researcher provided an overview of this

project and then requested that the group participate in the research. The final group of respondents was accessed at through the human resource manager at another private HEI who the researcher knew. A session was arranged with the students completing a post-graduate diploma in Marketing and Advertising. During this session they were briefed about the research before being asked to participate.

A similar procedure was followed in all cases. The researcher introduced himself and then explained the nature and purpose of the study, outlining the hypothesised relationships between forms of identity capital and employment. The questionnaires were then distributed to the group. They contained a consent form outlining the nature and purpose of the study, risks and discomforts, confidentiality, details of payment/lack thereof and a section encouraging respondents to ask questions (see Appendix C).

The researcher reviewed the informed consent form with prospective participants emphasising sensitive issues such as confidentiality and the rationale behind sensitive. The different phases of the research project were also explained, namely the current round of data collection measuring students' access to various form of identity capital and the follow-up round of data collection a year later to determine the nature and quality of their employment. The University of Technology respondents were also informed that their experiential learning supervisors would be contacted to measure their perceptions of the student's identity capital.

It was explained why the study could not be conducted anonymously given that the respondents would need to be contacted again. Assurances were provided that the confidentiality of their data would be maintained and all identifying information removed once all data had been recorded.

A specific appeal was then made to every student to participate in the study whilst emphasising that this was voluntary and that they were welcome to leave the venue at any time. Some students chose to leave; however, the number was negligible never exceeding two or three in any group and comprising less than 20 in total. Confidentiality was then again assured and the nature and purpose of items that had previously been identified as sensitive explained (see Sections 4.7.1.2 and 4.9 for an overview of these questions). The researcher was present while respondents completed the questionnaires in order to address any issues arising.

After completing the questionnaire, the respondents deposited these in a box at the front of the venue. They were then invited to select a bar of chocolate from a variety available as a token of appreciation for their participation.

4.4.1.2 Telephone survey one year later

Telephone interviews of the qualifying first round respondents using a structured interview schedule. It was attempted to contact all of the initial respondents, who had agreed to participate in the follow-up study using the telephone numbers they had provided.

The researcher conducted the initial telephone interviews ($N = 67$) in the first two weeks of November 2015 to ensure that the interview schedule (see Appendix E) was adequate and to identify any areas requiring attention. These interviews also served to model effective interview techniques to a research assistant who was employed to conduct the remainder of the telephone interviews in December 2015 and January 2016. Most of the interviews ($N = 277$) were conducted at the researcher's home office during a four-week period that began in the third week of November 2015. The researcher monitored how the research assistant conducted the interviews and provided feedback as a quality control measure where required. The research assistant was remunerated at a rate of R15 (U.S. \$1.22) per completed interview with a R500 (U.S. \$41) bonus after the completion of 100 interviews.

At the beginning of each call the researcher (or research assistant) introduced himself and explained the reason for the call. The respondents were reminded about the initial study and their participation was requested in this round of data collection. Some respondents did not immediately recall the initial study but did remember when reminded of the chocolate bar they had received. The respondent was then informed of the purpose of the telephone survey and that they were welcome to withdraw at any stage. They were informed that they were welcome to contact the researcher if they wished. Where this was requested the researcher's email address or phone number was provided.

The respondents were then asked the questions in the interview schedule. The respondent's answer to the first question "Would you please tell me about your employment (or lack thereof since graduation)" guided the researcher as to which sections to proceed with (see interview schedule in Appendix E).

Respondents who stated they were employed were asked the question from the Section one "Working"; those studying, either full- or part-time, were asked the questions from section two "Studying"; whereas the respondents who had indicated they were unemployed were asked the questions from section four "Unemployed". University of Technology respondents who had not provided contact details of their experiential learning supervisor in the initial survey were asked the questions in section three "Experiential learning". Finally, all the respondents were asked the question in section five "General", namely "Is there anything else you would like to mention/add?".

The guidelines for the most effective times to conduct telephone surveys provided by Rea and Parker (2014) were followed. The interviews were mostly conducted in the early evening between 18:00 and 21:00 on weekdays and Saturday afternoons between 12:00 and 21:00, when it was more likely that respondents who were working would be available. .

As data collection progressed over time, it became more challenging to contact respondents. It was taking longer to reach respondents with repeated calls made before achieving a positive result. Given that the research assistant had demonstrated himself both as competent and trustworthy, having completed 277 interviews successfully, it was decided at this point to provide him with a phone to work from home. This allowed him a greater degree of freedom in attempting to contact the missing respondents as he could attempt to call them at a wider range of times during the day. By this time, most of the respondents had been called at least once, leaving approximately 413 possible respondents who had telephone numbers that went unanswered, went to voice mail or who had requested to be contacted later (+/- 20 respondents). Of the respondents who were unavailable at this stage, 95 had telephone numbers that no longer existed, whilst 20 elected not to continue their participation in the study.

The research assistant then persisted with attempts to collect data from the remaining 413 respondents for three weeks from the second week of December 2015 until the end of the first week of January 2016. Given that at this point several calls were required before successfully concluding an interview, it was decided to add an incentive for the research assistant. 344 interviews had been completed and he was offered a R500 bonus for reaching 400 interviews (translating into an effective rate of R20 per interview). The research assistant was offered an additional R500 bonus when reaching 465 interviews which corresponded to 60% of all possible respondents after adding the 67 interviews completed by the researcher. It was decided to end data collection when the research assistant had reached 441 interviews as he reported that the last interviews had required an average ten calls before attaining a successful response. Together with the 67 interviews conducted by the researcher this brought the total sample size to $N = 508$ corresponding to 58.3% of the initial sample ($N = 872$).

With regards to the 364 (41.7%) missing respondents 26 (3.0%) elected not to participate in the follow-up data, 106 (12.2%) had provided numbers that no longer worked, and the remaining 232 (26.5%) respondents phones went un-answered or went to voicemail. In the case of calls that just rang or went to voicemail, a minimum of two additional attempts had been made to contact the respondent.

4.4.2 Data collection: Study two

It served to measure the experiential learning supervisors' perceptions of students' identity capital and was conducted in the last four months of 2015 in parallel with the initial survey data collection from students. The University of Technology respondents who had attended experiential learning, a three-month long workplace placement, had provided the details of their supervisor ($N = 257$).

The researcher conducted the initial 30 interviews together with a research assistant to model the necessary interviewing skills as well to check if the interview schedule required editing (see Appendix F). The research assistant underwent informal training on conducting telephone interviews and was given specific guidelines regarding the questions asked in the study. The research assistant collected data from an additional 67 respondents resulting in a final sample of 97 of 257 possible respondents (response rate: 37.7%).

The telephone interviews were conducted during office hours, given that respondents were the supervisors of experiential learning students office contact details had been provided. At the beginning of each call the supervisor was informed that their experiential learning student had provided their contact information and granted permission for the researcher to make contact. Next, the purpose of the study was explained, and the respondent's consent requested. Respondents who agreed to participate were questioned about the nature of their relationship to the University of Technology experiential learning student in line with the interview guidelines. The respondent was then asked to rate their satisfaction with the performance of the experiential learning student on 17 dimensions. Before being invited to supply any additional information that they believed was relevant relating to the time during which the student in question was with the organisation. The participant was thanked for participating in the study and invited to contact the researcher with any comments or questions.

Sampling plays a vital role in survey research, in that if conducted appropriately, it can negate the need to inspect each member of a population to determine the occurrence of particular variables and to ensure inferences made from the sample to the population are correct (Cowles & Nelson, 2015). The sampling approach used in this study is examined next.

4.5 Sampling and participants

Sampling is the practice of making choices as to how sub-sets of participants are selected from a population for a research study (Daniel, 2012; Levy & Lemeshow, 2013). Ideally, a sample should be a small version of the population from which it is drawn (Fink, 2003). Although probability sampling,

where all respondents in the population have an equivalent probability of being selected, is the most desirable form of sampling this is not always possible. Reasons for this are the nature of the population, the availability of resources and research design considerations (Daniel, 2012).

In such instances, convenience sampling is the most common form of non-probability sampling used. It makes use of a readily available group of respondents, but as the sample is opportunistic and voluntary, there may be differences between the respondents and the target population (Aldridge & Levine, 2001; Fink, 2003). The convenience samples for the two studies that form part of this thesis are discussed below.

4.5.1 Study one: Students/Graduates

Study one required two samples. The first sample comprised a convenience sample of final year students at HEIs in the Western Cape, whereas the follow-up sample comprised a sub-sample of the initial respondents a year later.

4.5.1.1 Initial sample: Final year students

The population comprised respondents from five HEIs located in the Western Cape, namely a University of Technology, two traditional universities and two private HEIs. The samples challenges were the large size of the student population, that no comprehensive list of members of the population was available to the researcher and that the associated costs and sophisticated resources required to draw a random sample, made random sampling impossible. Convenience sampling comprised the most practically feasible sampling method.

Data were initially collected from 1,014 respondents; however, 142 (13.8%) of the initial respondents were excluded, resulting in a final time one sample of 872 respondents. An arbitrary decision was made to excluded respondents over the age of 27 ($N = 59$, 5.8%) given that it was questionable that they would fall within Erikson's (1968; Erikson & Erikson, 1997) developmental stage of identity versus identity confusion, , had not provided their age ($N = 25$, 2.5%), or were missing significant amounts of data with one or more sections of the survey questionnaire was not completed ($N = 59$, 5.8%). It was noteworthy that the response rate, referring to the proportion of possible respondents approached who took part in the study (Cowles & Nelson, 2015), was high, with less than 20 (0.5%) of the possible respondents approached electing not to participate. Non-qualifying participants were distributed proportionally equally across the five HEIs and across the 21 qualifications included in the study.

The respondents from the five HEIs with the majority coming from the University of Technology (63.6%, $N = 645$) and one of the traditional HEIs (25.5%, $N = 259$) with the other institutions comprising

the remaining 10.8% ($N = 110$) of the sample (Second Traditional University, $N = 24$; Private HEI one, $N = 62$; Private HEI two, $N = 24$).

For the purpose of the analysis the respondents in the study were grouped into three groups based on their demographic characteristics and the perceived status of the university they attended in the world of work (see Section 4.6.1.3.4.1). The groups comprised (i) the University of Technology respondents ($N = 645$) with a low status; (ii) Traditional University Medium ($N = 259$); and (iii) Traditional University High ($N = 110$) with a high-status comprising the respondents from the one traditional university and two private HEIs. The 21 qualifications represented in the study were simplified into four groups, namely National Diploma (56.1%, $N = 489$), degree (30.1%, $N = 270$), Bachelor of Technology (6.9%, $N = 60$) and Postgraduate Diploma (6.1%, $N = 53$).

In terms of the biographical attributes of the sample, female respondents (69.2% and 70.1%) were somewhat overrepresented when compared with the national HEI population where females comprise around 59% of the student population (CHE, 2017). Most of the respondents were aged between 21 and 23 (72%, $N = 628$). The respondents predominantly spoke Xhosa (41.2%, $N = 359$), English (27.7%, $N = 241$) and Afrikaans (18.1%, $N = 158$). The majority of respondents identified themselves as black (53.4%, $N = 534$), whereas the remainder of the sample was made up of coloured (26%, $N = 227$) and white (14.9%, $N = 130$) respondents. In terms of their province of origin, two thirds of the respondents came from the Western Cape (66.1%, $N = 576$) and the Eastern Cape (14.2%, $N = 124$). This was expected given that the data was collected from HEIs in the Western Cape whose students predominantly emanate from these provinces.

The sample was diverse in terms of qualifications as well as biographical characteristics including age, gender, language, race, and province of origin. It was thus assumed that there would be a reasonably wide distribution of the different forms of identity capital (independent variables).

4.5.1.2 Follow-up: Initial respondents one year later

The 872 qualifying survey respondents constituted the population for the follow-up data collection. It was attempted to contact all the members of the population via telephone. The final time two sample comprised 58.3% ($N = 508$) of the initial sample respondents. The fact that not all respondents were available for the follow-up (Babbie, 2010, 2011; Kalaian & Kasim, 2008; Kim, 2008 Mulry, 2008) and the possibility that the missing respondents were atypical, and would thus distort the results of the study, posed risks (Babbie, 2010, 2011). Frequencies of demographic characteristics of both samples were examined to determine if there were any systematic differences.

Response rates differed slightly between respondents from the different HEIs attended with the ratio of the University of Technology respondents increasing from 63% ($N = 551$) in initial sample to 69.7% ($N = 354$) at follow-up and the Traditional University Medium respondents decreasing from 25.9% ($N = 226$) to 21.7% ($N = 110$). The sample composition in terms of courses the respondents were enrolled for was in both samples.

The gender ratio was 70:30 for females in both rounds of data collection and respondents' ages did not differ meaningfully between the two samples. Most respondents were aged between 21 and 23 (initial sample, 68%; follow-up, 73.7%) with virtually identical means (initial sample: $M = 22.32$, $SD = 1.61$, minimum 19, maximum 27; follow-up: $M = 22.30$, $SD = 1.63$, minimum 19, maximum 27). All the respondents thus formed part of the 'emerging adult' cohort as defined by Arnett (2000, 2007, 2015). Overall the ratios for the reported racial group remained fairly constant in both data collection phases. There was a slight increase in the ratio of black respondents (initial sample, 53.4% and time two, 57.5%), and small decreases in the ratios of coloured (initial sample, 26.0% and time two, 24.4%) and white respondents (initial sample, 14.9% and time two, 13.4%).

The percentage of Xhosa speakers in the sample increased from 41.2% (initial sample) to 49.2% (follow-up). At the same time the ratio of the third-largest group, Afrikaans speakers, reduced from 18.1% (initial sample) to 14.6% (time two), however the ratio of English speakers remained constant at around 27%. The slightly higher rate for Xhosa speaking respondents is likely related to the increase of black respondents, given that black respondents were more likely to be Xhosa speakers. It is also possible that it is related to the research assistant, who collected a large amount of the data, having been a Xhosa speaking person who might have been able to create rapport with Xhosa respondents quite effectively and possibly less effectively with Afrikaans speakers.

Finally, the proportion of respondents originating from the Western Cape (initial sample, 66.5%, $N = 578$) to follow-up sample (69.7%, $N = 291$) increased slightly and the proportion of the respondents from the Eastern Cape (14.2%, $N = 124$; 17.1%, $N = 87$) was slightly lower in the second sample than in the first. Equally so, foreign respondents were more difficult to contact at follow-up, and their proportion reduced from 7% ($N = 61$) in the initial sample to 3% ($N = 15$) at follow-up.

Given that the dependent variable in the study was employment of graduates from different courses following the differences in the ratios of the courses studied by the initial respondents was of possible concern considering that there is likely a difference in the employability based on subject of study. Overall, the time two samples were thus reasonably similar.

4.5.2 Study two respondents

At the time of collecting the initial student data, only 257 of the 551 University of Technology respondents had provided adequate contact details for their experiential learning Supervisors. The reasons for respondents not providing details of employers included (i) they had not been placed, (ii) they could not recall the telephone number of their Supervisor, or (iii) the qualification they were registered for had not offered the experiential learning component at the time of data collection. Attempts were made to contact the 257 experiential learning supervisors and it was possible to collect data from $N = 94$ of the 257 University of Technology experiential learning students' Supervisors. These comprised the study two respondents.

4.6 Operationalising the variables

Three instruments were used to operationalise the variables measured in the two studies. A self-administered survey was used to measure the student respondents' identity capital and a telephonic survey schedule elicited the employment status of the same respondents a year later. Finally, a telephone survey was used to measure the perceptions of experiential learning student's supervisor regarding the various forms of identity capital possessed by the University of Technology student respondents. These instruments, together with the rationale as to how they served to operationalise the various variables examined in the study, are outlined below.

4.6.1 Study one: Self-administered survey: Identity capital

The purpose of the self-administered survey (see Appendix C) was to measure the degree to which final year university students had acquired various forms of identity capital as the "net assets held by an individual at a particular point in time in terms of 'who they are'" (Côté & Levine, 2002, p. 143).

The survey comprised three broad sections, namely a section measuring students' biographical characteristics, a section assessing tangible sources of identity capital and a section assessing students' intangible sources of identity capital. The item choice was guided by Côté's (1997) article "An empirical test of the identity capital model" together with Côté's (1996, 1997, 2002, 2005) and Côté and Levine's (1989, 1997, 2002, 2016) work on identity capital. The items were preceded by a consent form which informed students about the study, so that they could provide informed consent, and which served to create a favourable atmosphere for answering the questionnaire.

The final instrument presented in the following sections is the result of extensive development over three pilot studies conducted over a period of two years which included a total of 630 participants.

This resulted in a final instrument that could be applied to a South African sample with confidence. The final instrument was also more user-friendly in that it comprised 102 items, reduced from 133 items in the first version (see Appendix G for a detailed outline of the process followed to develop the instrument used to measure agentic personality).

4.6.1.1 Informed consent form

The informed consent form served to inform the respondents about the nature and purpose of the study, address ethical considerations, and obtain informed consent. Respondents were requested to participate in the current study, access their marks, and to be contacted for the follow-up study a year later. The informed consent form used for the University of Technology respondents also asked for permission to contact their experiential learning supervisors after having been informed of the purpose of study two.

In line with good research practice (Babbie, 2010; Rubin & Babbie, 2011) the consent form confirmed that all information would be treated confidentially, how the findings would be processed, possible risks and discomforts and that the respondents would not receive payment for their participation. Participants were also informed that they were welcome to ask questions, that they could contact the researcher at a later stage (email and telephone number supplied), and that they had the right to withdraw from the research at any stage. (A copy of the consent form is provided in Appendix C).

4.6.1.2 Biographical information

The name, surname, student number, personal email address and cell phone number of respondents were requested so that they could be contacted for the follow-up survey. This information was also used to link each of the University of Technology respondent's responses to the data collected from their experiential learning supervisor.

The respondents' age, gender, self-assigned racial group membership, province of origin, academic qualification registered for, and university attended were recorded to describe the sample and be able to examine the similarity between this sample and the follow-up sample (Section 4.4 above). In addition, the biographical characteristics also comprised specific sources of human and linguistic capital.

4.6.1.3 Tangible sources of identity capital

In line with Côté's (1997; Côté & Levine, 1997, 2000), tangible sources of identity theory, financial capital, human capital, social capital and cultural capital were measured as tangible identity capital.

4.6.1.3.1 *Financial capital*

Financial capital, in the context of this research project, is regarded as the respondent's access to various forms of financial resources, including those of their parents (Côté, 1997). This was operationalised using two sets of questions, the first relating to how the respondents' studies were funded and the second being the Living Standards Measure of family of origin developed by the South African Audience Research Foundation (2012).

The rationale was that respondents who used their own funds, or funds from parents/ family/partner came from families with higher levels of financial capital, whereas those who made use of the National Student Financial Aid Scheme (NSFAS) were from families with less access to financial capital. This was given that the qualifying criteria for a NSFAS loan was a family income of under R122,000 (U.S. \$9,959) per year, before deductions (SAILI, 2015), or R200, 000 (U.S. \$16,327) if there were two or more students in a household (NWU, 2015).

The second indicator of financial capital was the Living Standards Measure (LSM) of the respondent's family of origin. The items were sourced from the All Media and Products Study (AMPS) (SAARF, 2012). Respondents were asked to indicate which of the 12 items listed were present in the household that they grew up in (e.g. TV set, washing machine, a motor vehicle), as well as whether they grew up in a rural area outside Gauteng or the Western Cape.

The original Living Standards Measure scale contained 29 standardised items which had been used in All Media and Products Study (AMPS, 2012). They served to allocate individuals into one of ten Living Standards Measures (LSM) level summarised in three super-ordinate categories (SAARF, 2012). After subject matter experts as well as focus group and pilot study respondents, had raised concerns regarding the overall survey length and in particular the length of the LSM scale, a shorter measure was sought.

Millward Brown and TNS South Africa (2014) reported that a CHAID¹ analysis of existing LSM data had resulted in a decision tree that was effective in correctly classifying respondents into one of the three LSM super categories in 85% of all instances based on a decision tree. The authors provided the researcher with two additional decision trees. These included an additional seven items that enabled a more accurate identification of super group C which includes the lowest LSMs (LSM 1-4) as well as split off LSM 9 and 10 from super group A identified by Du Plessis (2015). This resulted in a final scale

¹ CHAID, an acronym for Chi-squared automated interaction detection which enables the detection of statically meaningful splits in large sets of data providing outputs in the form of a multi-way binary tree diagram that identify optimum predictors within categories (Drozdenco & Drake, 2002; Hill & Lewicki, 2006)

comprising of 13 items which categorised participants into one of four LSM groups [Appendix H shows the scale and decision trees used to categorise the participants into LSM groups] (see table 4.1 below).

Table 4.1

LSM descriptions (Based on SAARF, 2012, 2014)

LSM 1-4: The urban/rural poor (27.4% of the SA population)
Live in: Squatter hut shack, matchbox and traditional hut
General education: Some High School
Population group ratios: Black 98% / Coloured 2% / Indian 0% / 0% White
Average monthly household income: R1 363 - R3 138 (U.S. \$111 - 256) per month
LSM 5-7: The urban middle class (48.1% of the SA population)
Live in: Urban flats and houses
General education: Matric and higher
Population group ratios: Black 86% / Coloured 10% / Indian 2% / 4% White
Average monthly household income: R4 165- R11 263 (U.S. \$340 - 919) per month
LSM 8: Lower upper income (8.2% of the SA population)
Live in: Urban flats and small houses
General education: Matric and higher
Population group ratios: Black 51% / Coloured 17% / Indian 6% / 26% White
Average monthly household income: R13 210 - R14 882 (U.S. \$1078 - 1215) per month
LSM 9-10: Urban rich (17.4% of the SA population)
Live in: Urban dwellings
General education: Matric and higher
Population group ratios: Black 33% / Coloured 9% / Indian 9% / 49% White
Average monthly household income: R17 998 – R21 328 (U.S. \$1469 - 1741) per month

4.6.1.3.2 Human capital

Human capital encompasses the skills, knowledge and experience of the individual which determine their value in society (Coleman, 1990). Côté and Levine's (1997) work was drawn on to develop indicators of human capital. The specific items were:

- Qualification registered for: It was assumed that different qualifications are valued differently in the employment marketplace in that there are different demand curves for the skills associated with different university courses. As the number of respondents was too low to analyse each of the 27 courses the respondents were registered for it was decided to analyse these in terms of four broad categories, namely National Diploma (ND), Bachelor of Technology, Degree and Postgraduate Diploma. The researcher made a judgement call regarding the value of these qualifications, scoring them on an ordinal scale from 1 (National Diploma) to 4 (Postgraduate Diploma).
- Academic performance: Participants' marks for their two third-year majors were sourced from the universities' systems as a measure of students' academic performance. The assumption

made was that students with higher marks would show higher levels of competency and therefore be more employable.

- Work experience gained whilst studying would likely contribute positively to the respondent gaining employment. Respondents were asked to “Please describe any work experience you have”. Given that it was not possible to accurately distinguish between the quality and duration of work experience from this item, it was decided to simply record the frequency of examples per respondent. The University of Technology respondents were also asked about their experiential learning experience (see Appendix C) which was combined with the frequency of general work examples.
- Special talents or skills that students try to develop over time. These could be musical, artistic, mechanical, scientific, intellectual, or sport-oriented skills. To assess these, students were asked whether they had any such skill that they had have tried to develop, and to describe these. The number of examples of specific talents or skills provided was recorded, though not all respondents may have been equally able to make self-assessments regarding their talents or skills.
- Two specific skills as components of human capital were examined, namely respondents’ self-rated numeracy skills and computer literacy. Respondents’ scored their self-perceived competence on scales ranging from (1) not very good, to excellent (6).
- Acting as a tutor, teaching assistant, research assistant or laboratory assistant as an extracurricular activity that students participated in whilst at university was treated as human capital as this enhanced respondents’ skills and could advantage them if listed on their CV.
- Finally, respondent were asked to rate their self-confidence on a scale from (1) not very good, to excellent (6), as self-confidence is thought to be critical in taking advantage of other forms of human capital. Use made was made of a single item as opposed to an established scale as this was the approach used by Côté (1997).

4.6.1.3.3 *Social capital*

Social capital, for the purpose of this thesis, encompassed access to information and particular social groupings through supportive relationships and networks (Esser, 2008).

The number of the extracurricular activities participated in by the respondents at university were also treated as an indicator of social capital, in that they could provide access to social networks that could contribute towards students’ employment after graduating. The possible networks considered included those generated through the membership in (i) faculty or academic societies, (ii) student

religious groups or societies, (iii) sports teams, (iv) arts and cultural organisations, and (v) student governance and/or residence committees.

4.6.1.3.4 *Cultural capital*

Cultural capital, for this thesis, encompassed the knowledge assimilated through one's family from earliest childhood and further developed through schooling (Bourdieu, 1984).

To assess the degree of cultural capital, respondents were asked to provide the name of the high school they had attended. The motivation behind this was that the type of school a person attended would indicate the degree of cultural capital it could provide. Each school provided was categorised as one of the following: ordinary school (not well resourced), former Model C² school (well resourced) and private school (well resourced). The schools were categorised by asking someone knowledgeable about the school system for inputs in their classification. A Google search was conducted using the name of the school when its category was unknown. The assumption was that well-resourced schools would have a well-functioning web site. It was determined that respondents had greater cultural capital when they had attended a former Model C or private school. School attended was scored on an ordinal scale from ordinary school (1), former Model C (2) to private school (3).

Responses to the follow-up telephone interviews, specifically concerning question 1.7. "What factors (things or people) in your opinion helped you in gaining this post?" (see Appendix E) was examined in terms of whether the respondent felt they got their position due to being able to form a relationship with the interviewer or similar, or not.

4.6.1.3.4.1 Academic capital

Two indicators of academic capital were assessed. The level of schooling of the respondents' parents and the type of HEI attended. The former was measured with the question "What is the highest level of education that each member of your family has attained?" The assumption was that the higher the level, and frequency, of parental and sibling education, the greater the respondents' access to knowledge regarding the functioning of the education system would be. The number of examples were recorded for each respondent.

A record was kept of where the data was collected in order to identify the HEI attended by the respondent. University rankings consistently rated Traditional University High as providing the highest

² A defunct semi-private structure used in the governance of whites-only government schools in South Africa, introduced in 1991 by the apartheid government. The term "model C" is still commonly used to describe former whites-only government well-resourced schools (Christie & McKinney, 2017).

quality of education, Traditional University Medium as the second highest and the University of Technology as the third highest (e.g. University Ranking by Academic Performance, Informatics Institute, 2017). The two private HEIs were both well regarded in the marketplace; however, they did not form part of university rankings. It was assumed that employers valued degrees from the different institutions differently and that the institution the respondent attended would affect their employment prospects.

4.6.1.3.4.2 Linguistic capital

Linguistic capital in this thesis encompassed what Côté (1997, p. 578) defined as “speech patterns” as well as Bourdieu’s (1991) reference to fluency and sociocultural understanding of the dominant language within society.

The items used to measure linguistic capital in the survey related to English as the dominant business language in South Africa. The respondents were asked to specify their home language to determine whether this impacted on their probability of gaining employment. Home language was scored on an ordinal scale based on their perceived value to the world of work, namely Xhosa and other African languages (1), Afrikaans (2) and English (3). The researcher developed two additional items, relating to the respondents’ written and spoken proficiency in English: Respondents were asked to rate their respective perceived proficiency on a scale from (1) not very good, to (6) excellent (see Appendix C).

4.6.1.4 Intangible sources of identity capital

The sources of intangible identity capital measured in the self-administered survey comprised the six personality attributes that constitute Côté’s (1997, 2002) agentic personality construct, namely self-esteem, purpose-in-life, internal locus of control, self-actualisation, ego strength and ideological commitment.

4.6.1.4.1 *Self-esteem*

Self-esteem was operationalised in line with Coopersmith’s (1981, p. 1) definition: “A set of attitudes and beliefs that a person brings with him or herself when facing the world... self-esteem provides a mental set that prepares the person to respond according to expectations of success, acceptance and personal strength”.

His measure (Appendix C: Q.1-15) was derived from Côté’s (n.d.; 1997) Multi-Measure Agentic Personality Scale (MAPS) who based his self-esteem scale on Coopersmith’s (1975) Self-Esteem Inventory (SEI - Adult Form). The respondent was asked to judge the degree to which each statement described their feelings, actions or situation on a six-point Likert-like scale ranging from 1 “completely

disagree” to 6 “completely agree”; for example, “I worry about little things a lot” and “I like most things about myself”.

4.6.1.4.2 *Purpose in life*

Purpose in life, in the context of this thesis, was defined as “the ontological significance of life from the point of view of the experiencing individual,” i.e. a subjective feeling that life has meaning (Crumbaugh & Maholick, 1967, p. 201). The survey's purpose in life sub-scale (Appendix C: Q.16-25) was derived from Côté's (n.d.; 1997) MAPS scale based on Crumbaugh and Maholick's (1967) Purpose in Life (PIL) test. Respondents were asked to describe themselves using ten different six-point semantic differentials, each with different anchors appropriate to the dimension measured. Example items are “I am usually (1) completely bored... (6) excited and enthusiastic” and “I have discovered (1) no mission or purpose in life ... (6) to clear-cut goals and a satisfying life purpose”.

4.6.1.4.3 *Internal locus of control*

The measure of Locus of control (LOC) followed Rotter's (1966, p.1) definition of internal LOC as an individual perceiving “reinforcement as contingent on their behaviour versus chance”. The 13 items contained in the internal LOC subscale (Appendix C: Q.26-38) were derived from Levenson's (1974, in Halpert & Hill, 2011) IPC (Internality, powerful others, and chance) scale requiring the respondents to indicate the degree to which they agreed with each Likert-like item along a six-point scale with anchors that varied from (1) strongly disagree to (6) strongly agree. Examples of items included “Much of what happens in my life is as a result of luck.” and “What happens in my life is determined by my own actions”.

4.6.1.4.4 *Self-actualisation*

For this study, self-actualisation was the movement and drive of the individual to meeting their full potential (Polkinghorne, 2001). The 13 Likert-like items included in the self-actualisation sub-scale (see Appendix C; Q.39-51) required the respondents to indicate the degree to which each was like him, judged along a six-point scale from (1) completely unlike me to (6) completely like me. The items in the sub-scale were derived from the 36 core dimensions of the self-actualisation concept identified by Leclerc *et al.* (1998). Examples of items included were “I am aware of my emotions when making decisions” and “My life has a great deal of meaning”.

4.6.1.4.5 *Ideological commitment*

Ideological commitment in the context of this thesis referred to the degree to which an individual is committed to a defined set of values and goals, including those related to occupation, religion, political

ideals and life-philosophy (Grotevant & Adams, 1984; Newman & Newman, 2008). The six Likert-like items in the ideological commitment sub-scale (see Appendix C; Q.52-57) required the respondents to rate each statement as to the degree they believed each to be true along a six-point scale from (1) completely false to (6) completely true. The items were based on the Ideological Commitment Scale (ICS) of Côté's (n.d.; 1997) MAPS scale, who had in turn taken items from Adams, Benion and Huh's (1987 in Côté, n.d.; 1997) Extended Objective Measure of Ego Identity Status measure. An example of an item was "It took me a long time to decide but now I know for sure what direction to move in for a career".

4.6.1.4.6 Ego strength

Ego strength, as measured in this study, related to the extent to which an individual exhibited emotional hardiness and adaptability when confronted with significant stressors (Preston, 2006). The 11 items included in the surveys' ego strength sub-scale (see Appendix C; Q.58-68) were derived from Côté's (n.d.; 1997) MAPS ego strength scale (ESS) which was based on Epstein's Ego Strength Scale (1983 in Côté, n.d.; 1997). Examples of items included were "Self-control is no problem for me" and "I find it hard to wait for something I want".

4.6.1.5 Race and gender

Racial group and gender were thought to impact on the acquisition of employment in the SA context (see Section 2.2). To measure racial group affiliation respondents were asked to indicate which population group they regarded themselves a member of (i.e. black, coloured, Indian, white, other, prefer not to answer). In the case of gender participants indicated whether they saw themselves as male or female, or preferred not to answer.

4.6.2 Study one: Follow-up telephonic survey measuring employment status

The telephone survey conducted with the initial group of participants assessed the study's dependent variable, namely, graduate employment. A graduate, for this study, was a student who had completed a National Diploma, Degree or post-graduate diploma. The quality of employment was examined in that the type of job (varying between any job to graduate-level/fulfilling/career-orientated job) and time taken to achieve employment after graduation were measured.

The interview schedule was aimed at ascertaining what the initial sample respondents were doing a year after they were due to have graduated, namely working, studying, working and studying or unemployed. Section one focussed on employed respondents to determine the nature and quality of their employment based on a review of the literature (see Chapter 2, Section 2.3). The second section

examined those students who were continuing with their studies on either a full- or part-time. Section three recorded the contact details of the University of Technology respondents for their experiential learning supervisors (as not everyone had provided this information in the self-administered survey), Section four applied to those participants who were unemployed, and Section five served to collect general comments that respondent wanted to add.

The initial interview schedule was compiled, and the researchers' supervisors (as subject matter experts) were asked for input and comments, based on which the document was finalised. The researcher then administered the initial interviews in order to identify and address any potential problems. The instrument functioned well overall; however, the following improvements were introduced: Q. 1.7 was expanded to determine how many interviews the respondent had undergone before gaining employment; respondents were requested to provide reasons for their ratings relating to the degree to which employment was related to their studies (Q. 1.8), whether their studies had prepared them for employment (Q. 1.9) and their satisfaction with employment (Q. 1.10) (see Appendix E). The reason for this was to collect information which could regarding the quality of employment that had been obtained by the graduates.

4.6.2.1 Measuring employment and its quality

Respondents were first asked who they were working for to determine the type of organisation (public, private or self-employed) who employed the graduate and to provide information about the employment profile of graduates. Several questions were then asked to determine the quality of employment. These included:

- Time to gain employment: Participants were asked when they had started working for their employer. It was assumed that finding employment sooner after graduation was seen as more favourable, as many individuals enter HE in order to increase their job prospects (see Chapter 2, Section 2.2.1). Time to gain employment was calculated based on the number of days between 1 January 2016 (the start of the year after graduation) and the first day of employment. Students who obtained employment prior to 1 January 2016 were allocated a negative value, with a maximum of -365. This was given as there would be some anomalies, such as respondents employed during the full duration of their studies, who would likely skew the data. These respondents were allocated a value of -365 days.
- Job title: Respondents were asked to provide their job title to judge the nature of the employment with Question 1.3: "What is your job title?" This was to make a distinction between (i) arbitrary jobs such as service or administrative posts, (ii) internships, learnerships

or graduate programmes, and (iii) senior, professional or managerial posts. The researcher categorised of the responses provided by the respondents based on his own judgements.

- Permanency of employment: Respondents indicated whether their current employment was permanent (1) or a limited contract position (2).
- Respondents' average working hours per week were used to indicate the quality of employment, with a higher number of hours (i.e. full-time work) being seen as more positive.
- Respondents indicated the degree to which their employment was related to their field of studies on a scale ranging from 1-6, where 1 represented "not at all" and 6 "a great deal". As many individuals enter HE in order to increase their job prospects (see Chapter 2, Section 2.4.8) it was assumed that the higher the relation the job had to the field of study, the better the quality of employment. Respondents were also asked to provide the key reasons as to why they felt this way in order to assist with the interpretation of the data obtained for this item.
- Respondents indicated their degree of satisfaction with their employment on a scale from 1-6 where 1 represented "not at all" and 6 "a great deal". Higher ratings indicated higher employment quality. The respondents were then also asked to provide the key reasons as to why they felt this way in order to gain insights into the key factors that contributed to the respondents' answer.
- The respondents' gross monthly salary was assessed as a higher salary was considered as greater employment success.

Three additional questions served to collect information about the respondents' employment context.

These were:

- "How did you find out about this job?" to ascertain the process that the respondent had used to find their job. The responses were analysed in terms of the different forms of capital that had contributed to the respondent becoming employed.
- "What factors (things or people), in your opinion, helped you in gaining this post?" to ascertain what factors, analysed in terms of forms of capital, had contributed to the respondent attaining employment.
- Respondents were asked to rate the degree to which they felt their studies had prepared them for their employment. This was rated on a scale from 1-6 where 1 indicated "not at all" and 6 "a great deal". This served to gain insight into the degree to which respondents experienced their qualification as providing them with the necessary human capital required to perform in the workplace. Respondents were asked to provide reasons as to why they felt this way.

As some participants might have held other positions before entering their current employ, respondents were asked if they had held another job since graduating, and what kind of job it had been. This allowed the study to investigate what progress had been made in terms of the quality of employment, as well as to establish the initial date of employment post-graduation.

Participants were asked to contribute any additional information to gain additional contextual evidence which might have assisted in understanding the responses provided and to elicit additional relevant information.

4.6.2.2 Engaging in further studies and reasons

The respondents who indicated that they were studying were asked whether this was full-time or part-time to distinguish between respondents studying and working and those just studying. This item proved challenging as some respondents who were registered as full-time students were working full-time, whereas others who were not working were registered as part-time students. Anecdotal evidence suggests that this is motivated by access to hostel accommodation and NSFAS funding, amongst others. For this reason, a judgement call was made to record employed respondents studying, as studying part-time.

Respondents provided information about what they were currently studying so that they could be classified as being registered for the same qualification as previously, another qualification on the same level, or an advanced qualification. The aim was to distinguish between respondents completing their previous qualification and those pursuing further studies.

The respondents were then asked about their reasons for continuing to study. The reasons provided were classified as (i) improving qualifications, (ii) better work prospects, (iii) could not find a job, (iv) completing a previous qualification, and (vi) other reasons. The core focus here was to ascertain how many students were studying because they could not find employment.

4.6.2.3 Unemployment and its reasons

Respondents who indicated that they were unemployed were asked whether they were looking for a job. Respondents not looking for work were asked to provide their reasons for this.

Unemployed respondents who were looking for work were asked about the reasons as to why they had not yet obtained a job. This was done to investigate and differentiate between objective circumstances and subjective perceptions for not gaining employment. The responses were categorised based on the researcher's judgement. Participants were also asked to indicate what they thought would help them gain employment.

At the end of the survey unemployed respondents were also asked if there was anything else which they wanted to add.

4.6.3 Study two: Experiential learning employers' perceptions of student capital

In order to compare students' subjective views of their identity capital with an external view, experiential learning supervisors of University of Technology respondents who had completed work experience with them were requested to indicate their students' degree of identity capital. The interview schedule (see Appendix F) was developed to measure the supervisors' perceptions of the degree to which University of Technology respondents possessed various sources of identity capital (see Section 4.6.3).

It was not possible, or desirable, to measure all the different forms of tangible identity capital given that a number of these had been measured against tangible criteria (see Section 4.6.1.3). Various proxies of human capital were assessed asking the respondent to rate the students' subject-specific knowledge (Q. 1), technical skills (Q. 2), spoken English (Q.3), written English (Q.4), understanding of the world of work (Q. 6), computer literacy (Q.7), self-confidence (Q. 9), general satisfaction with performance (Q. 16) and likelihood to employ the student (Q. 17) measured on a six point scale from (1) not at all, to (6) .

Formulating items for the respondent to rate the students' intangible identity capital was more challenging. It was decided, in consultation with the researchers' supervisors as subject matter experts, to develop a single item for each of the six sources of intangible capital based on their respective definitions. (see Appendix G, Q.10-15). In order to keep the survey as short as possible no biographical information was collected as it was not relevant. It allowed for the interview to be short as it was assumed that this would serve to increase the chances of supervisors wanting to participate. One item (Q.8 in Appendix G) relating to "a clear sense of identity" was developed as a general proxy for Côté's (1997a, 2000) agentic personality construct.

The respondents' perception of the students' human capital was measured with three items, namely their satisfaction with the student's computer literacy, technical competency and self-confidence. Respondents rated the student's self-confidence along a continuum from (1) lacks self-confidence to (6) very self-confident. The third question aimed to measure whether the student enhanced their human capital whilst working for the organisation, i.e. the degree to which they had built their reputation while completing their experiential learning. This was measured by determining the respondents' overall satisfaction with the student's performance.

Three questions measured the respondents' satisfaction with students' academic capital. Supervisors were asked to rate the student's discipline-specific knowledge, technical skills and understanding of the world of work. Unless indicated otherwise, respondents provided all answers on scales ranging from 1 (very dissatisfied) to 6 (very satisfied).

Perceptions of the students' linguistic capital were measured by asking respondents to rate the students' spoken and written English proficiency.

The respondents' perceptions of the degree to which the student possessed the six sources of intangible identity capital were measured as follows:

- (i) Ego strength was measured on a six-point scale indicating if the student had "A clear sense of identity" from (1) lacks a sense of who he/she is, to (6) has a clear sense of who he/she is";
- (ii) Self-esteem was measured by the respondent rating the student from (1) poor to (6) good/positive in relation to how they thought the student felt about themselves;
- (iii) To measure purpose-in-life respondents were required to rate the student on a scale from (1) "lacks a purpose" and (6) "clear purpose & direction".
- (iv) Locus of control was measured by respondents indicating if they thought that the student believed that they could control events that affect him/her. Answers were provided on a scale rating the student from "(1) controlled by factors out his/her control" to "(6) believes that his/her success relies on factors that he/she controls";
- (v) Respondents indicated the student's degree of self-actualisation by responding to the item "driven to reach his/her full potential" on a scale ranging from "(1) not at all driven" to "(6) highly driven"; and
- (vi) Ideological commitment was indicated by asking respondents if the student had a clear set of values. Rating was provided on a scale ranging from "(1) not at all" to "(6) clear set of values".

The final question aimed to assess the experiential learning supervisor's impression of the students' employability. Respondents provided an answer to the following item on a scale ranging from "(1) not at all likely" to "(6) very likely": "Assuming there were no limitations regarding this decision, you were the sole decision-maker, and without any obligation, please indicate how likely it would be that you would employ this student".

4.7 Data Analysis

The data were captured manually by research assistants in Microsoft Excel and analysed using IBM's Statistical Package for the Social Sciences (SPSS, Versions 24 and 25). There was a small number of missing items which would likely impact on the data analysis given that SPSS utilises listwise deletion. It was decided to conduct Little's (1998) MCAR test, in which a non-significant result indicates that missing values are missing completely at random (MCAR). As the MCAR assumption could not be confirmed in all instances, a graph of the missing values was generated (see Figure 5.1).

Cronbach's alpha was used to determine the reliability of the instrument, given that this is the typical index used for this purpose (Barker, Pistrang & Elliot, 2002). The internal consistency is measured between survey items believed to measure the same construct and which should thus correlate with one another (Spector, 1992; Trobia, 2008). Coefficients of inter-item correlations, such as Cronbach's alpha, are influenced by the number of items in a scale, the variance of individual item scores, and the variance of the total test scores (Tavakol & Dennick, 2012). Cronbach's alpha is the most effective for measuring inter-item correlations for scales with multiple items that measured at the interval level of measurement (Cooper & Schindler, 2014). It serves to report an average of all the possible split-half combinations of the items in a scale (Ruane, 2005). The coefficient reflects the extent to which items in a scale are homogeneous and represent the same underlying construct (Cooper & Schindler, 2014).

Consequently, principal axis factoring was used to validate the intangible identity scales in the survey instrument as this is the method of choice in psychology to determine the construct validity of self-reporting scales (Williams, Onsman & Brown, 2010). The purposes include reducing the number of items, scrutinising the relationship between items, detecting and assessing the uni-dimensionality of a theoretical construct, appraising the construct validity of a scale or sub-scale, developing a simple interpretation of a scale, assessing multicollinearity of items, developing theoretical constructs, and substantiating suggested theories (Thompson, 2004; Williams, Onsman & Brown, 2010).

Principal component analysis, the default method in SPSS, though not a true factor analytical procedure (Bartholomew, Knott & Moustaki, 2011), and principal axis factoring are the most commonly used analytic methods (Pagès, 2015; Russell, 2002; Thompson, 2004). They were the methods employed in this thesis. They are similar, as both are based based on the eigenvalues of the sample correlation matrix (Bartholomew, Knott & Moustaki, 2011). Principal axis factoring tends to have smaller pattern/structure and communality coefficients than principal components analysis (Thompson, 2004). Principal components analysis relies on the assumption that the scores on measured variables have perfect reliability (Thompson, 2004) and uses orthogonal transformation to

convert a set of observations of possibly correlated variables into a set of values of linearly uncorrelated variables called principal components (Pagès, 2015). Both aim to find the least number of factors/components accounting for the common variance of the set of variables (Bartholomew, Knott & Moustaki, 2011). Whereas principal components analysis was used in the pilot studies, principal axis factoring was used to validate the final instrument. This was done as principal axis factoring is more conservative and can be used to determine whether items on a scale would load on a single factor given that the subscales in the instrument were used as single scores to calculate Côté's (1997, 2000) agentic personality.

The criteria applied when judging the suitability of the sample data for factor analysis were sample size, an appropriate score for the Kaiser-Meyer-Olkin (KMO) index of sampling adequacy, as well as that the items correlated with one another as measured through Bartlett's test of sphericity (Panwar, Kumar & Ray, 2016). Kaiser's (1974) guidelines were applied for interpreting the KMO scores, namely that ≥ 90 was marvellous, ≥ 80 meritorious, ≥ 70 middling, ≥ 60 mediocre, ≥ 50 s miserable and < 50 unacceptable. Spector (1992) recommended a minimum of 100 to 200 respondents. Comrey and Lee (1992) provided an alternate scale of sample size adequacy, with 50-100 = very poor, 100+ = poor, 200+ = fair, 300+ = good, 500+ = very good, and 1,000+ = excellent.

Parametric statistical procedures are preferable as these are more accurate and precise than non-parametric estimates and have greater statistical power (Field, 2017; Kwak & Kim, 2017). However, these procedures function on the assumption that the population from which the data is drawn is normally distributed (Field, 2017; Pallant, 2010) thus the normality assumption should be examined when use is made of these (Ghasemi & Zahediasl, 2012). SPSS provides a number of visual tools to inspect the normality of data including quantile-quantile (Q-Q) probability plots which are simpler to interpret with large data sets, and histograms that provide frequency plots of the data transposed against a normal distribution curve (Field, 2017; Ghasemi & Zahediasl, 2012; Pallant, 2010).

Supplementary to these graphic assessments are various statistical tests for normality that compare the sample scores to a normally distributed set of scores with the same mean and standard deviation (Ghasemi & Zahediasl, 2012). SPSS makes use of two statistical tests of normality, namely the Kolmogorov-Smirnov (K-S) test, which contrasts to the theoretical cumulative distribution function of the test distribution with the empirical distribution function (EDF) of the data, and Shapiro-Wilk test which offers superior power to the K-S test (Ghasemi & Zahediasl, 2012). It is notable that significant results are achieved with large sample sizes, even when there are small deviations from normality (Field, 2017; Oztuna, Elhan & Tuccar, 2006; Pallant, 2010). Field (2017) and Wilcox (2010) suggest the use of bootstrapping as a robust technique, available in numerous SPSS procedures, to overcome any

shortcomings relating to the non-normal distribution of data, which was also then applied in this study.

The hypothesised correlations were then examined using Spearman's (ρ) where one or both variables were ordinal, Pearson (r) where both variables were interval or ratio-level, and point-biserial correlations when one variable was dichotomous and the other interval or ratio (Gravetter & Wallnau, 2009; Howell, 2010). Where there were significant correlations Pearson's Chi-Square test was used to examine the relationships between nominal or ordinal variables (Ghasemi & Zahediasl, 2012). Alternately, where one of the variables was continuous analysis of variance (ANOVA) was used to examine the differences between multiple variables. Levine's test was used to assess examine for homogeneity of variance of the variables given that this is the default test used by SPSS (Bartholomew, Knott & Moustaki, 2011). Although SPSS 24 and 25 offers a wide variety of post-hoc tests, Bonferroni's test was used when equal variances were assumed and Tamhane's T2 test when this was not the case. Both tests are commonly used in psychological research and fairly conservative making it less likely that type 1 errors would occur (Brysbart, 2011; De Muth, 2006).

The ICMGE was tested using a binary logistic regression model given that the predicted outcome was whether graduates were employed or unemployed. Logistic regression analysis aims to predict dependent variables with two values with a probability varying between 0 and 1, such as membership or non-membership, inclusion-non-inclusion, or yes-no. The predictor variables can be nominal, ordinal, interval or ratio, with an indicator-variable coding scheme used for categorical predictor variables (George & Mallery, 2019; Harrell, 2015; Hosmer, Lemeshow & Sturdivant, 2013).

The ICMGE was tested using structural equation modelling (SEM) run using SPSS AMOS which uses a confirmatory approach where a hypothesis is tested to analyse a structural theory relating to a phenomenon (Byrne, 2016). SEM applies maximum likelihood estimation which calculates the likelihood function, which conveys the probability of obtaining the present data covariance matrix as a function of the model's parameters (Blunch, 2008). Two key aspects of SEM are that the procedure analysed are represented by a series of structural (regression) equations, and that these can be modelled graphically in path diagrams enabling a clear conceptualisation of the theory being studied (Byrne, 2016). Whereas traditional regression analysis ignores possible measurement error in the independent variables included in a model, SEM models provide a mechanism for explicitly including measurement error in the observed variables included in a model (Raykov & Marcoulides, 2000).

4.8 Ethical considerations

A critical ethical requirement of research is that it be reviewed by an institutional review board (IRB) to ensure that risks are minimised, and the rights and interests of the participants are protected (Babbie, 2010; Bloor & Wood, 2006; Colton & Covert, 2007; Rubin & Babbie, 2011). In the case of universities, the University Ethics Committee serves as the IRB which provides ethical approval for studies conducted by their students (Bloor & Wood, 2006). The research proposal for the study presented in this thesis were submitted to the University of Cape Town's (UCT's) Faculty of Commerce Ethics in Research Committee for approval on two occasions. Approval was received on 26 August 2013 for the initial study of individual respondents; and on 11 December 2013 for the follow-up and the employer study (see Appendix I).

Voluntary participation by subjects in research is a crucial requirement of IRB's and research ethics in general (Babbie, 2011; Dillman *et al.*, 2007; Rubin & Babbie, 2011). Social research intrudes into the life of the subjects as they are required to reveal personal information about themselves that may be difficult or uncomfortable (Babbie, 2011). Informed consent is critical. It requires that all participants be made aware of all consequences, and consent to participate (Bloor & Wood, 2006; Rubin & Babbie, 2011; Kitchener, 2000; Rubin & Babbie, 2011). The researcher requested that respondents complete the questionnaire or telephonic interviews after emphasising that this was completely voluntary. The self-administered survey was prefaced by a consent form that outlined the study and requested the respondent's participation. The consent form also requested permission for the follow-up telephone interview and, in the case of the University of Technology students, permission to contact their experiential learning supervisor. Experiential learning Supervisors provided their consent (see Appendix F) and were informed that the student being researched had consented to them providing information about the student (see Appendix C).

It was noted that the principle of voluntary participation could compromise the generalisability of results if respondents who are more inclined to participate in research differ in relevant characteristics from respondents choosing not to participate (Babbie, 2011; Rubin & Babbie, 2011). A particular challenge occurs when the respondents are students as they may be anxious that their non-participation may affect their marks. As a result, the researcher should be particularly sensitive to this and emphasise that non-participation would not have any negative consequences (Babbie, 2011; Rubin & Babbie, 2011). This was particularly relevant in the context of the self-administered student survey as the researcher was a lecturer. However, most respondents were students that the researcher was not involved with academically and their lecturers, who had provided access to their students, were not present during the survey administration. The researcher was also not known to

the respondents as a member of staff of the institution (in the case of the University of Technology and the Traditional University Medium in the majority of instances).

Informed consent and voluntary participation are integrally related as participation needs to hinge on a complete understanding of any possible risks to the participants themselves (Babbie, 2010; Rubin & Babbie, 2011). The principle of informed consent holds that, as far as logistically viable, the researcher should brief participants about the nature of the research, what is expected of them, who is conducting and financing the research, the purpose of the research, and how it will be used and shared (Bloor & Wood, 2006). As was outlined in Section 4.6.1.1 this information was included in the informed consent form which was read out aloud to all respondents (see Appendix C).

A clear distinction needs to be made between anonymity and confidentiality. Anonymity exists when responses cannot be linked to particular respondents by either the researcher or readers of the findings (Dawson, 2009; Babbie, 2010), whereas confidentiality exists when a researcher is able to identify participants' responses, but undertakes not to do so (Babbie, 2010; Rubin & Babbie, 2011). It is thus essential not to use the term anonymous to denote confidential (Babbie, 2010). The design of the current study made anonymity impossible as data had to be collected from respondents in a follow-up study, as well as from experiential learning supervisors in some instances, and it needed to be possible to link the responses obtained in all three instances. Babbie's (2010) guideline was followed here in that it was made clear to respondents, both in the consent form (see Appendix C) and in the briefing when the questionnaires were distributed, that their information would be kept confidential and only accessed by the researcher and his assistants. The critical requirement of confidentiality is that supplied information may not be directly disclosed to third parties (Dawson, 2009). This was achieved by keeping completed questionnaires in a secure location. In as far as possible research assistants who were unfamiliar with respondents were recruited to record the data. In addition, the research assistant conducting the follow-up interviews was not familiar with the initial respondents. Identifying details of respondents were removed from data sets once data capturing had been completed. The master identification file was saved in a password protected location in the cloud. Rubin and Babbie (2011) emphasise the importance of training research assistants with access to respondents' details regarding their ethical responsibilities. Here the research assistants involved in both the collection and recording of data, were trained regarding the importance of maintaining confidentiality.

Students completing the self-assessment survey were provided with the researchers' email address in the informed consent form (see Appendix C) and invited to contact him with questions or issues. The respondents were further invited to ask questions to clarify any issues during the completion of the

self-administered survey. In the case of the telephone surveys the final question asked participants to raise any questions or comments (see Appendix E). The experiential learning supervisors participating were also invited to contact the researcher with any questions or issues (see Appendix F).

The research should not harm the participants, irrespective of them giving consent (Babbie, 2011; Rubin & Babbie, 2011). In the context of social research attention should be paid to psychological harm that participants could suffer through embarrassment, the revelation of deviant behaviour, expression of unpopular attitudes, or revealing personal characteristics, both to the self and others, that may be anxiety-provoking. Babbie (2010) notes that social research projects may cause participants to confront personal aspects not usually contemplated and that it is thus important that the researcher be vigilant against the most subtle dangers that could cause psychological harm. Piloting the student questionnaires was thus an important step as respondents noted that some questions were particularly sensitive (see Appendixes G and J). These items were removed from the final instruments (e.g. a question about suicide) with attention was paid to reassuring respondents about the reasons for some of the questions which they had noted as sensitive (e.g. self-esteem related questions and questions regarding family qualifications). By approving the instruments used in the research the IRB review of the study discussed above affirmed that the potential of any harm to the respondents had been limited.

Dawson (2009) observed that it is beneficial for participants to know what will happen with research results. Although the participants were not provided with the results directly, they were invited through the consent form to contact the researcher should they wish to receive the study's results. This was emphasised during the verbal guidelines provided during the administering of the self-administered survey questionnaire. This invitation was again presented to the respondents who participated in the follow-up interviews.

Rubin and Babbie (2011, p.85) noted that "In general, science progresses through honesty and openness, and it is retarded by ego defences and deception." The researcher aimed to be as open and transparent as possible in reporting the findings of the thesis, including where these were not favourable. An ethical concern also exists in that respondents may be harmed by the reported data when fairly sophisticated participants may pinpoint themselves in the numerous indices and tables, and may experience themselves as negatively characterised (Babbie, 2010; Rubin & Babbie, 2011). The large number of respondents in the study made this unlikely that this would be possible given that central tendencies and data dispersions are reported as opposed to individual responses. At the same time, the researcher also remained conscious of this issue during the interpretation and reporting of

data and thus made active attempts to prevent this from happening by anonymising the reported data as far as possible. Dawson (2009) further noted the importance of providing detailed appendices to ensure open and transparent reporting. Extensive appendices (see Appendixes A-K) are attached to this thesis in order to make the research process as open and transparent as possible.

It could be seen as an area of concern was that respondents participating in the initial survey were given a token gift, in the form of a bar of chocolate. Whereas more substantial rewards could compromise a wide range of ethical principles, small rewards are considered acceptable as long as they are token payments or payments in kind (Iphofen, 2011; Singer & Couper, 2008). Nonetheless, a more detailed consideration of the use of rewards in this thesis is provided below.

4.8.1 Rewarding respondents

Each respondent in the initial survey study was provided with a chocolate as a token of appreciation for their time and effort. The chocolates could be regarded as token rewards as they cost the researcher R5 each on average and would retail for no more than R8 or R9 in a university cafeteria.

The decision was based on a number of considerations, namely respondents (i) responded positively to the researcher arriving in the venues with chocolates; (ii) expressed their gratitude when choosing a chocolate after depositing their completed questionnaire in the survey collection box at the front of the venue; and (iii) the chocolates served as a point of connection when contacting the respondents for the follow-up telephone interview a year later. There also appeared to be a positive impact on the effort that respondents took in completing the questionnaires with only 59 (5.8%) of the initial respondents being excluded from the analysis due to them leaving out significant parts (one or more sections) of their questionnaires.

The core motive behind providing the chocolates was to increase the response rate. Various studies have shown that token incentives provided as a form of social exchange are effective in achieving this goal (Church, 1993; Fox, Crask & Kim, 1988), but only if the respondent values the reward (Van Geest, Johnson & Welch, 2007). Incentives would likely have a more significant impact on respondents from less advantaged environments (Mduluzi, Midzi, Duruza, & Ndebele, 2013). However, this was thought to be largely negated in this study by the negligible value of the token rewards provided.

Besides the chocolate bars, a number of the other strategies proposed by Dillman *et al.* (2014) were applied to impact positively on the reward, cost, and trust matrix. These included demonstrating respect by providing the respondents with the reasons why the survey was taking place and thanking them both as a group and individually for their time, effort and willingness to participate. Endeavours were made to make the questionnaire as interesting as possible by explaining how the various parts

of the scales functioned together with the possible insights to be gained from these. Finally, social validation was provided by noting that other students from different HEIs had also participated in the study.

It had initially been decided to make use of a lucky draw to increase participation in the study. However, it was decided to replace this with a token reward as this was supported by literature. Post-paid incentives, such as lotteries or lucky draws, have been found to have little or no bearing on the rate of survey responses (Porter & Whitcomb, 2003). The rationale for providing token rewards in survey research is based on the premises of social exchange theory (SET) which asserts that individuals' actions are motivated by the return these actions are expected to bring (see Cropanzano & Mitchell, 2005 for an in-depth review of SET). The three core elements of SET in predicting an individual's actions are the rewards he or she expects to gain from an activity, the costs that the individual incurs to obtain these rewards and trust that the rewards will outweigh the costs of doing something. The advantage of providing an incentive is that a sense of mutual obligation is created which is easily honoured by the return of a completed questionnaire (Dillman *et al.*, 2014).

4.9 Conclusion

This thesis is based on the ontological assumption of critical realism, which maintains that independent reality coexists with knowledge that is influenced by both the socio-historical and socio-cultural context in which this is created. On the other hand, the epistemological question of what knowledge comprises is at the centre of this thesis given that both the foundational theories for this thesis, namely Erikson's (1968) ego identity theory and Côté and Levine's (1989, 1997, 2002, 2016) identity capital model, attempt to reconcile individual agency with the objective constraints of the objective individual's environment.

Data was collected in the empirical studies in this thesis employed multi-modal survey research. The self-administered survey was developed around the guidelines provided by Côté's (n.d., 1997) earlier studies, however given that these were based on Eurocentric scales and that the majority of respondents would be second language English speakers, it was decided to follow an extensive pilot testing process to ensure the reliability and validity of the instrument assessing the participants' intangible identity capital over a two year period. Subject matter experts were consulted, a focus-group review being conducted to identify potential problem issues, and quantitative three pilot studies conducted to ensure that the six scales measuring intangible identity capital had adequate inter-item reliability and construct validity determined via principal components analysis. The two telephone survey instruments were primarily based on theory, although subject matter experts were

also consulted. A further quality check was performed in that the researcher conducted the initial interviews in order to identify and address possible issues.

Convenience sampling was applied given the large size of the SA student population for which a sampling frame could not be obtained. The initial survey data was collected over a six-week period in the second half of 2015 from groups of students at a five HEIs in the Western Cape. They were enrolled for 21 different qualifications with $N = 872$ respondents completing their final year of study. The follow-up data collection took place via telephone interviews a year later at the end of 2016 and resulted in $N = 508$ (58.1%) of the first-round respondents participating. The sample demographic characteristics were similar to those in the initial sample. The telephone interviews with experiential learning supervisors ($N = 94$) took place at the same time as the student survey in 2015.

Potential ethical concerns were addressed through a review of the ethical guidelines provided in the literature as well as having the study approved by UCT's Faculty of Commerce Ethics in Research Committee. Finally, given that the student respondents in the initial study were rewarded with a small token of appreciation, the ethics of rewarding respondents were critically discussed with the conclusion that possible ethical concerns are negligible compared to the benefits of an improved response rate, and a better overall experience for participants.

CHAPTER FIVE

RESULTS

5.1 Introduction

This chapter outlines the analysis of the collected data and results found. The information provided in this chapter is structured according to the results in relation to the research questions and corresponding hypotheses found at the end of Chapter 3. Firstly, the reliability and validity results of the scales used to measure student respondents' identity capital are presented, followed by an overview of the descriptive statistics relating to the variables examined in the thesis. The first proposition, that the different forms of identity capital are related to one another, is then explored. Following this, the proposition that race and gender correlate with sources of identity capital is examined. The correlation between the experiential learning Supervisors' perceptions of experiential learning respondents' identity capital and the student respondents' self-assessed identity capital is then reviewed. Finally, the principal position of the thesis, that the various forms of identity capital correlate with graduate employment and its quality, is examined.

5.2 Reliability and validity of the scales employed to measure agentic personality

To minimise inconsistencies and reduce the probability of Type II errors missing values were considered before examining the reliability and validity of the scales used for the study.

5.2.1 Replacing missing values

Whilst only 0.55% ($N = 349$) of the overall data points were missing from the data collected through the student survey, 21.7% ($N = 189$) of the respondents had at least one missing data point. Given that SPSS uses listwise exclusion in analyses of scale consistency and accuracy, this would impact negatively on the number of cases available for analysis. No single item had more than 1.72% ($N = 23$) of responses missing with the maximum amount of data missing from any scale being 1.84% ($N = 80$). Little's (1998) MCAR test produced mixed results. The overall pattern of missing values showed

relationships ($p < .05$) i.e. that the data was not MCAR, but the missing values in three of the subscales (purpose-in-life, ideological commitment and ego strength) were MCAR (see Table 5.1 below).

Table 5.1

Frequency of Missing Values in the Intangible Identity Capital Scales used in the Self-Administered Student Questionnaire and Little's MCAR Test Results, $N = 872$

Scale	Questions with missing data (min-max missing)	Cases with missing data (%)	Number of Missing responses (%)	MCAR test $N = 872$
All items	62 of 73 (0-11)	189 (21.67%)	349 of 63,646 (.55%)	$\chi^2 = 6310$; $df = 5804$; $p < .01$
Self-esteem scale (Q.1-15)	12 of 15 (0-5)	48 (5.5%)	59 of 12,9015 (.46%)	$\chi^2 = 6193$; $df = 5686$ $p < .01$
Purpose-in-life scale (Q.16-25)	5 of 10 (0-2)	10 (1.15%)	11 of 8,720 (.13%)	$\chi^2 = 38.5$; $df = 44$ $p = .71$
Locus-of-control scale (Q.26-38)	11 of 12 (0-5)	53 (6.08%)	64 of 11,336 (.57%)	$\chi^2 = 228.4$; $df = 182$ $p < .01$
Self-actualisation scale (Q.39-51)	11 of 12 (0-4)	37 (4.24%)	42 of 11,336 (0.37%)	$\chi^2 = 221.4$; $df = 151$ $p < .01$
Ideological commitment scale (Q.52-57)	5 of 6 (0-5)	12 (1.38%)	14 of 5,232 (0.27%)	$\chi^2 = 26.3$; $df = 18$ $p = .09$
Ego strength scale (Q.58-68)	11 of 11 (0-3)	54 (6.19%)	79 of 9,592 (0.82%)	$\chi^2 = 132.3$; $df = 135$ $p = .55$
5 Intangible items*	5 of 5 (0-5)	34 (3.90%)	80 of 4,360 (1.84%)	$\chi^2 = 44.5$; $df = 31$ $p = .06$

*Note. Question numbers refer to items provided in Appendix C, Chi-square = χ^2 , Degrees of Freedom = df , *Intangible items = Spoken English, Written English, Numeracy, Computer literacy and Self-confidence*

Given that the MCAR assumption could not be assumed with certainty, the assumption that the data was missing at random (MAR) was evaluated. This was done to examine whether monotonicity existed within the missing data (i.e. no discernible patterns existed) to confirm that the data was MAR. Figure 5.1 below illustrates that there were no significant patterns among the missing data points, with no distinct groupings of data points visible. No single item was missing in more than one percent of responses. The ten most frequent patterns among the total responses had only one missing value, with the dominant pattern (92.8%) having no missing data (see Appendix K for summary of missing value patterns). With the small amount of data missing overall, and no clear patterns in evidence, the data was likely MAR. The expectation-maximization (EM) algorithm, which is an iterative process that computes the most likely value for the missing data, based on the available data (Sweet & Grace-Martin, 2010), was used to replace the missing data.

Cheema (2014) noted that the expectation-maximization (EM) algorithm is suitable for replacing missing values to maintain the representativeness of the sample. EM comprises a two-step process where in the E (expectation) step each absent value is regressed against the remaining variables for a

particular case. Missing values are then imputed based on which scores were predicted through a series of regressions; whereas in the M (maximization) step the complete set of imputed data is submitted to maximum likelihood estimation. It is repeated until a stable solution is achieved (Ho, 2014). EM imputations are superior to mean imputations as the relationship with other variables is preserved, which is crucial when factor analysis or regression analysis will be used in analysing the data (Sweet & Grace-Martin, 2010). A key advantage of EM imputation is its numerical stability in that it is unlikely to under- or over-estimate the imputed values (Lange, 2012). Sweet and Grace-Martin (2010) noted, however, that EM imputation tends to underestimate standard errors, but that the approach is suitable when the percentage of missing data is below five percent, and when the standard error of individual items is not critical when combined into an index.

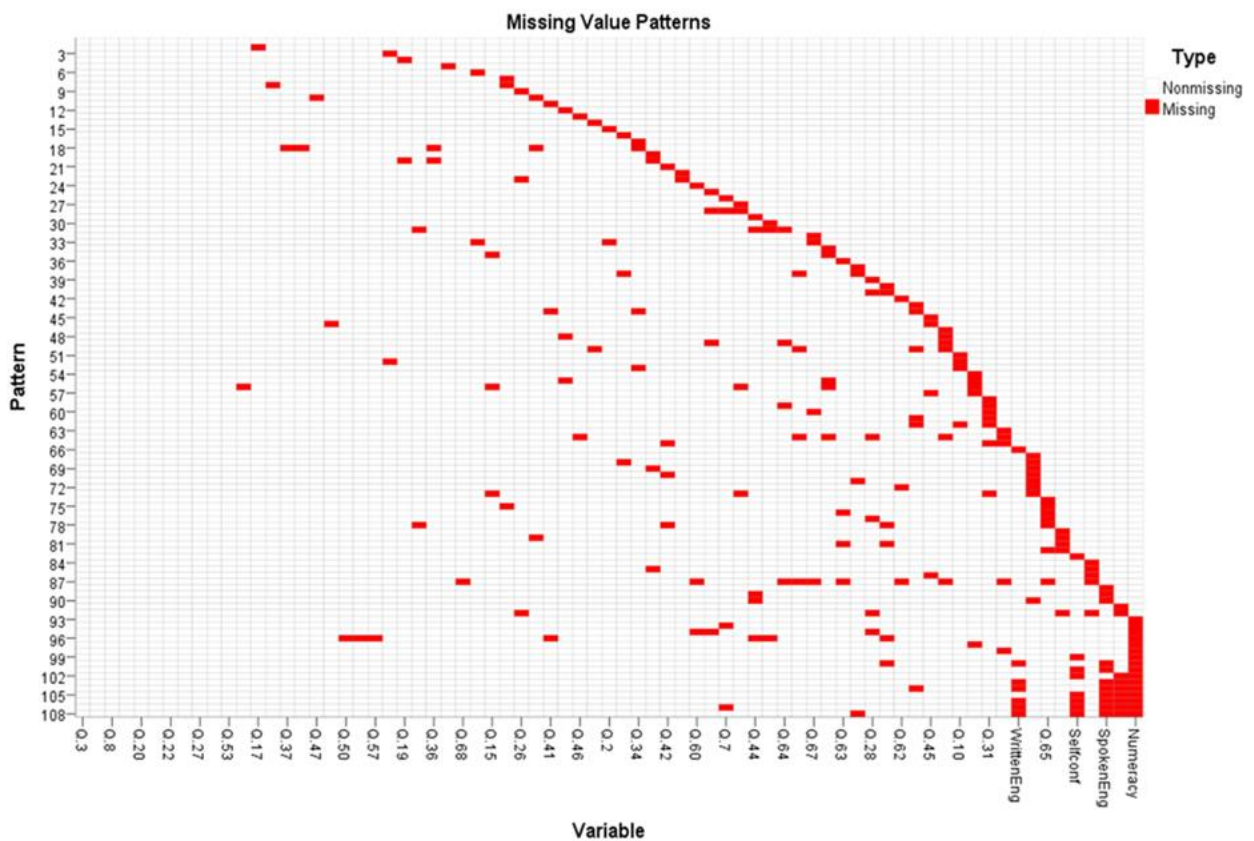


Figure 5.1. Patterns of missing values for the full study instrument

5.2.2 Reliability analysis

Table 5.2 below illustrates that the six subscales measuring intangible identity capital had acceptable reliabilities. Cronbach's alpha coefficient ranges between zero and one. The larger the value the greater the scale coherency and accompanying reliability. Different opinions exist regarding satisfactory values of alpha, ranging from .70 to .95 (Tavakol & Dennick, 2011); however, a widely accepted practice is that an alpha of .70 or higher is regarded as acceptable coefficient to indicate

internal consistency in scales used for research purposes (Spector, 1992; Trobia, 2008). The logic underlying the alpha cut-off of .70 is that that at least 50% of the variance is shared among items in a scale (Spector, 1992). Low alpha values can be attributed to aspects such as a limited number of questions and a lack of interrelatedness between items, which could be attributed to there being more than one underlying construct (Tavakol & Dennick, 2011). Spector (1992) maintains that where an alpha coefficient below .70 is achieved, a scale should be reviewed as there is a high probability that the scale items do not all relate to the same construct. It should also be noted that the length of a test automatically increases the coefficient irrespective of the homogeneity of the items, whereas an alpha of greater than .90 suggests redundancies of questions indicating that the scale should be condensed (Tavakol & Dennick, 2011). In instances where an alpha is below .70 for a scale, the least correlated items should be deleted until this critical value is either achieved or exceeded (Spector, 1992).

All Cronbach α scores exceeded .70, with most corrected item-total correlations being $>.30$. The subscales were treated as individual items by calculating the means for each. When examining the reliability of the six means, after the validity analysis, the mean for ideological commitment did not achieve an acceptable corrected item-total correlation (.26) and was thus excluded from the calculation of the mean score for Côté's (1997, n.d.) agentic personality construct used in this study.

Table 5.2

Summary of the reliability results in the Intangible Identity Capital Scales used in the Self-Administered Student Questionnaire and Little's MCAR Test Results, N = 872

Scales	Initial Cronbach α	Removed items*	Final Cronbach α	Number of items in final scale	Final range: Corrected item-total correlations
Self-esteem (Q.1-15)	.734	Q.9, 12	.740	13	.296-.444
Purpose-in-life (Q.16-25)	.838	None	.838	10	.447-.628
Locus-of-control (Q.26-38)	.784	Q.35-38	.798	13	.368-.602
Self-actualisation (Q.39-51)	.738	Q.39, 47	.779	13	.294-.589
Ideological commitment (Q.52-57)	.726	None	.726	6	.290-.579
Ego strength (Q.58-68)	.804	None	.804	11	.361-.595

Note. *Items removed if corrected item-total correlations $<.30$, Question numbers refer to the survey items provided in Appendix C

5.2.3 Validity analysis

The sample was sufficiently large ($N = 872$) to evaluate the validity of each of the subscales that were used to calculate the agentic personality score. The ample size exceeded Spector's (1992) recommendation of a minimum of 100 to 200 respondents and was very good (500+ respondents) according to Comrey and Lee (1992). The largest sub-scale comprised 13 items (self-actualisation), and thus there were at least 67 respondents per scale item in the sample far exceeding the recommendations of Cattell (1978) of three to six subjects per item, Gorsuch (1983) at least five subjects and Nunnally's (1978) minimum of ten. Bartlett's test of sphericity was significant ($p < .01$) for each of the six subscales indicating that the correlation matrices were not identity matrices, i.e. the items in the subscales were related to one another (see Table 5.3 below).

The KMO indexes of sampling adequacy all met Kaiser's (1974) criteria for being meritorious ($\geq .80$), except for ideological commitment (.65) which was mediocre, indicating the scales were suitable for factor analysis. The Bartlett's tests of sphericity for the scales were all significant ($p < .01$) indicating that the correlation matrixes were not identity matrixes, and therefore suitable for structure detection.

The component structure for the means for the five scales is set out in Table 5.3 below all loading on a single component with loadings from .341 to .786. The poor reliability of the ideological commitment scale ($\alpha = .210$), which was dropped from the agentic personality factor, was confirmed by the fact that when included in the principal components analysis, it loaded poorly (.176) (see Appendix L).

The subscales were treated as individual items by calculating the means for each. When examining the reliability of the six means, after the validity analysis, the mean for ideological commitment did not achieve an acceptable corrected item-total correlation (.26) and was thus excluded from the calculation of the mean score for Côté's (1997, n.d.) agentic personality construct used in this study.

Table 5.3

Validity scores for Intangible Identity Capital Scales used in the Self-Administered Student Questionnaire, N=872

Scale	KMO measure	Bartlett's test of sphericity			No. of components with eigen value >1	Component loadings	% variance single factor
		χ^2	df	Sig			
Self-esteem scale (Q.1-15)	.801	1498.90	78	<.01	4	.341 - .587	24.64%
Purpose-in-life scale (Q.16-25)	.885	2590.73	45	<.01	2	.541 - .721	41.85%
Locus-of-control scale (Q.26-38)	.849	1835.39	78	<.01	3	.472 - .748	38.98%
Self-actualisation scale (Q.39-51)	.797	2099.57	36	<.01	4	.453 - .767	38.41%
Ideological commitment scale (Q.52-57)	.646	795.56	10	<.01	2	.450 - .786	43.18%
Ego strength scale (Q.58-68)	.808	2322.31	45	<.01	3	.474 - .721	36.39%
Agentic Personality (Sum means excluding ideological commitment)	.754	828.73	10	<.01	1	.409 - .591	45.89%

5.3 Descriptive statistics

This section thus presents an outline of the descriptive statistics for the sources of intangible and tangible identity capital, that were not biographical variables. The descriptive statistics for the biographical variables can be found in Section 4.4.1.

5.3.1 Intangible identity capital

The descriptive statistics for the six sources of intangible identity capital measured in the initial student sample are set out in Table 5.4 below together with the composite score for the means of the five scales (without ideological commitment) which represents Côté's (1997, n.d.) agentic personality construct. The approach followed to constructing the scales i.e. the items which loaded on a single factor, using principal axis factoring, were used to identify the items included in each sub-scale, the means of which were then combined to calculate Côté's (1997, 2000) agentic personality. The different sources of intangible identity capital had similar means, all above the scale midpoint of 3.5, indicating that, on average, participants exhibited the characteristic measured by each scale. The exception was ego-strength ($M = 3.94$, $SD = .85$) which, whilst still on the higher end, was somewhat lower compared with the other sources that ranged between 4.31 ($SD = .69$) for self-esteem and 4.89 ($SD = .73$) for ideological commitment. The high scores indicated that the respondents generally possessed the various traits incorporated in Côté's (1997, n.d.) agentic personality construct. The normality of the sample distribution was examined using the Kolmogorov-Smirnov (KS) test of

normality. The scales were not always normally distributed, so bootstrapping was applied when analysing the data.

Table 5.4

Student Respondents' Self-Ratings of Intangible Capital, N = 872

	SE	PIL	LOC	SA	IC	ES	AP
Mean	4.31	4.60	4.35	4.80	4.89	3.94	4.48
SD	.69	.63	.88	.54	.73	.85	.50
Minimum	2.00	2.10	1.00	2.54	1.67	1.36	2.77
Maximum	5.92	6.00	6.00	6.00	6.00	6.00	5.65
Kurtosis (SE.165)	-.09	.84	-.27	.65	.78	-.23	.37
Skewness (SE .08)	-.42	-.63	-.36	-.68	-.74	-.13	.31
KS (DF = 872)	.066*	.071*	.065*	.073*	.093*	.042*	.027

Note. * = $p < .01$, SE = Self-esteem, PIL = Purpose in life, LOC = Locus of control, SA = Self-actualisation, IC = Ideological commitment, ES = Ego strength, AP = Agentic personality, SD = standard deviation, SE = standard error

5.3.2. Tangible identity capital

The descriptive statistics for the four tangible forms of identity capital, namely financial, human, social, and cultural capital, are examined below.

5.3.2.1 Financial capital

The proxies used to examine financial capital were the Living Standard Measure (LSM) level of the respondents' family of origin and the source of funding for studies.

5.3.2.1.1 *LSM of family of origin*

In the initial survey responses, a small percentage (2.9%, $N = 25$) of the respondents' families of origin fell within the LSM 1-4 category (the rural poor). The middle class (LSM 5-7) comprised 33.9% ($N = 296$) of the sample, whereas 27.4% ($N = 239$) were categorised in the lower part of the upper-class (LSM 8) and 35.8% ($N = 312$) fell into LSM 9-10. 63% of the participants in the study were from LSM 8-10 families, although these only comprised 14% of the SA population (Nielsen, 2016).

5.3.2.1.2 *Source of funding for studies*

Four sources of funding accounted for 94.46% ($N = 824$) of respondents' funding overall, namely NSFAS (42.45%, $N = 350$), parents or family (35.06%, $N = 306$), bursary or scholarships (11.07%, $N = 97$) and own funds (5.8%, $N = 51$). The remaining 5.54% ($N = 48$) of funding was jointly accounted for by sources such as part-time employment, funds from acquaintances and employer loans.

5.3.2.2 Human capital

The descriptive statistics for the proxies for human capital possessed by the respondents are reviewed below. These included academic performance, qualification registered for, work experience, computer literacy, numeracy, self-confidence, and number of special talents or skills

5.3.2.2.1 *Academic performance*

Academic performance was measured as the mean for the respondents' two major final year subjects. The mean grade was 62.6% ($SD = 10.09\%$, $N = 600$), and the median was 63% with a minimum of 14% and a maximum of 93%.

5.3.2.2.2 *Qualification registered for*

As outlined in Section 4.4 the sampling distribution according to qualification studied towards was as follows: National Diploma (56.1%, $N = 489$), degree (30.1%, $N = 270$), Bachelor of Technology (6.9%, $N = 60$) and Postgraduate Diploma (6.1%, $N = 53$).

5.3.2.2.3 *Work experience gained while studying*

Even though only University of Technology respondents had the opportunity to complete a structured three-month qualification placement, 43.7% ($N = 381$) of the respondents had undergone experiential learning. On average, the student respondents had gained 1.26 ($SD = .96$, $N = 872$) examples of work experience, however this increased to 1.65 ($SD = .96$) examples when the experiential learning encounter was added as an additional example.

5.3.2.2.4 *Numeracy skills, literacy skills and self-confidence*

The respondents' self-ratings of their numeracy skills ($M = 4.36$, $SD = .94$, $Min = 2$, $Max = 6$, $N = 872$), computer skills ($M = 4.71$, $SD = .94$, $Min = 1$, $Max = 5$, $N = 872$) and self-confidence ($M = 4.87$, $SD = 1.0$, $Min = 1$, $Max = 6$, $N = 872$) were on the high side when compared with the central point of 3.5 on the 6-point scale. The respondents, thus, on average, had high levels of self-confidence and saw themselves as proficient in computer and numeracy skills.

5.3.2.2.5 *Special skills or talents*

The final proxy used to measure human capital was the number of special skills or talents respondents indicated they had with 55.6% ($N = 485$) of the participants indicating that they had at least one special talent or skill. The average number of talents or skills provided was 0.76 ($SD = .83$, $Min = 0$, $Max = 3$, $N = 872$). With

5.3.2.3 Social capital

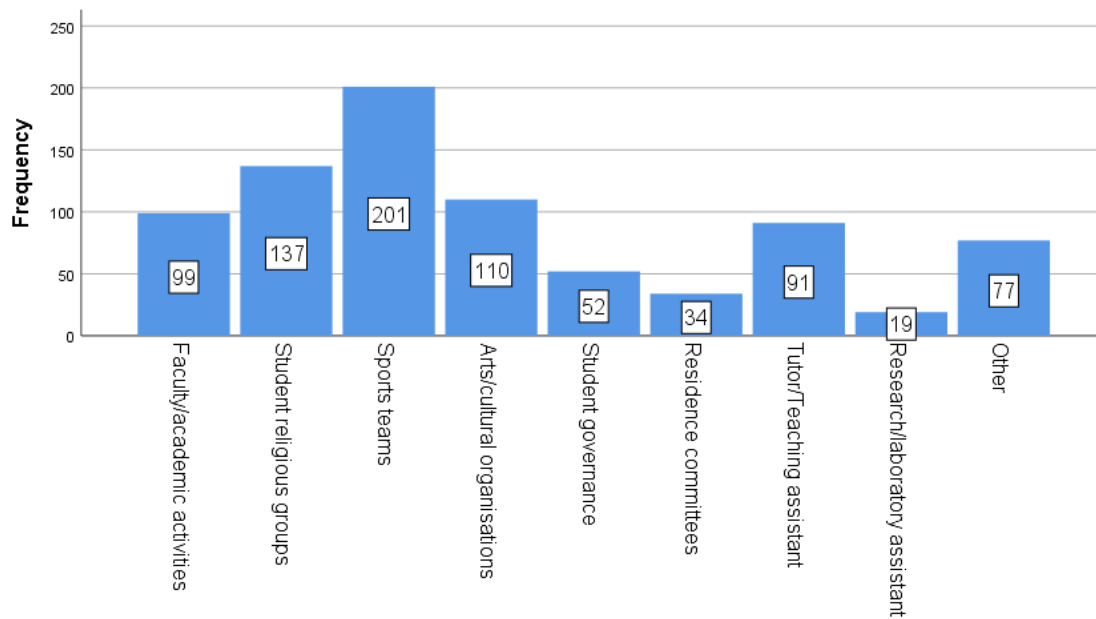


Figure 5.2. Types of extracurricular activities students participated in, $N = 820$

Social capital was examined using the number and types of extracurricular activities that the respondents were involved in whilst attending university. A total of 63.1% of the respondents indicated that they participated in extracurricular activities ($M = 0.95$, $SD = .91$, $Min = 0$, $Max = 3$, $N = 550$). The most frequent activities included participating in sports teams (24.5%, $N = 201$), religious groups (16.7%, $N = 137$) and arts and cultural organisations (13.4%, $N = 110$) (see Figure 5.2 above).

5.3.2.4 Cultural capital

The proxies for cultural capital were divided into two sub-categories, namely academic and linguistic capital.

5.3.2.4.1 Academic capital

Three proxies were used to measure academic capital were school type, HEI attended and level of familial education.

A distinction was made between ordinary schools (government, non-fee-paying), former Model-C (government, fee-paying), and private/foreign schools. Almost half of all participants (44%, $N = 384$) attended ordinary schools, a third (34.2%, $N = 298$) former Model C schools, and 12.6% ($N = 110$) had attended private schools.

The descriptive statistics for the university attended were reviewed in Section 4.4 as this also comprised one of the characteristics used to describe the sample of the initial sample respondents.

Most respondents attended the University of Technology (59.9%, $N = 549$), followed by the Traditional University Medium (25.9%, $N = 226$) and the balance the Traditional University High (11.1%, $N = 97$).

Close on three-quarters of the respondents (73.7%, $N = 643$) had at least one family member with a qualification higher than matric. However, this study focused on those with a National Diploma or higher given that this was the minimum qualification for respondents in this study ($M = 1.51$, $SD = 1.28$, $N = 864$). In the case of the respondent's parents, 33.4% ($N = 317$) had at least one parent with a or higher qualification ($M = 0.54$, $SD = 0.77$, $N = 872$) with a similar ratio of mothers (25.9%, $N = 226$) and fathers (27.6%, $N = 241$).

5.3.2.4.2 *Linguistic capital*

The respondents' home language, together with their self-ratings of written and spoken English proficiency, were used as proxies for linguistic capital. The descriptive statistics for home language were covered in Section 4.4 above as this was also a biographical characteristic of the sample. The respondents rated their written and spoken English abilities highly when compared with the scales mid-point of 3.5, with a mean of 4.80 ($SD = .81$, $Min = 1$, $Max = 6$, $N = 872$) and 4.76 ($SD = .87$, $Min = 1$, $Max = 6$, $N = 872$) respectively.

5.3.2.5 Composite scales

It was decided to create composite scores for the different forms of capital to allow for the use of more powerful inferential statistics, given that the original scales were not normally distributed and thus did not meet the requirements for path analysis. Twenty-three proxies were used to measure the various forms of tangible identity capital, several based on single item measures on which the range of possible scores varied between three and six-points, thus providing limited variance.

The composite measure for financial capital was calculated by adding the participants scores on the two ordinal measures, namely source of funding (1 = NSFAS, 2 = bursary/scholarship, 3 = own funds, 4 = parents/family) and LSM (1-4 = 1, 5-7 = 2, 8 = 4, 9-10 = 6) together, producing a twelve-point score range with a mean of 7.37 ($SD = 3.12$, $Min = 3$, $Max = 12$, $N = 315$). The data on this new variable was fairly normally distributed ($skewness = .28$, $SE = 0.14$; $kurtosis = -1.41$, $SE = 0.27$).

The human capital score was calculated by adding qualification (NDIP = 1.5, Degree = 3, Bachelor of Technology = 4.5, Postgraduate Diploma = 6), number of talents or skills (1 = 1, 2 = 2, 3=3), and number of examples of work experience (1 =1, 2 = 2, 3 = 3). Qualification was given a heavier weighting given that it was an objective measure of human capital. The variable produced a mean of 11.56 ($SD = 4.24$, $N = 241$) that was somewhat skewed with skewness of 0.93 ($SE = .16$) and kurtosis of .27 ($SE = .31$).

Academic performance scores were excluded from the human capital score because they correlated poorly with all other forms of capital as well as employment and its quality indicators (see Table 5.9). Similarly, self-assessed computer literacy, numeracy and self-confidence were also omitted because of poor correlations with other forms of capital, employment and employment quality indicators, as well as with experiential learning employers' assessment of the students' respective skills.

There was only one proxy used to measure social capital that was at least at the ordinal level of measurement, namely the number of extracurricular activities, which also then comprised the social capital scale ($M = 0.95$, $SD = .91$, $Min = 0$, $Max = 3$, $N = 550$).

Finally, two composite subscales were calculated for cultural capital, namely linguistic and academic capital. Academic capital comprised school type (ordinary school = 2, former Model C = 4, private = 6), university (University of Technology = 2, Traditional University Medium = 4, Traditional University High = 6) and number of parental examples with National Diploma or higher (0 = 0, 1 = 3, 2 = 6) ($N = 321$, $M = 7.59$, $SD = 3.74$). Linguistic capital was calculated using home language (Xhosa = 2, Afrikaans = 4, English = 6) and self-assessed spoken English competency (1-6/2) ($N = 321$, $M = 6.05$, $SD = 1.87$). Self-assessed written English was excluded, given its poor correlation with other forms of identity capital and employers' scores for experiential learning students (see Table 5.9).

5.3.3 Study one: Occupation one year later ($N=508$)

The focal aim of the study was to examine the respondents' employment status, and quality thereof, a year after they had been scheduled to complete their studies. Approximately half of the respondents who participated in this follow-up study (47.4%, $N = 241$) were employed of which 36.0% ($N = 87$) were also studying part-time. The remainder were either studying (38.0%, $N = 193$) or unemployed (14.6%, $N = 74$).

5.3.3.1 Study one: Follow-up: Characteristics of employment obtained

Descriptive statistics are presented for the characteristics of the employment obtained by respondents, followed by a summary of the indicators that were used to measure the quality thereof. The six general characteristics reviewed were job type, the industry and economic sector in which respondents were employed, the number of hours worked per week, how employment had been found, and the degree to which respondents felt their qualification had prepared them for employment.

5.3.3.1.1 Job type

Respondents who identified that they were employed worked in 18 job types comprising predominantly entry-level positions. This is reflected in the sample's mean salary of R7,324 ($SD = R3.830$, $N = 213$, $Min = R0$, $Max = R28,000$). The frequency of each job type is set out in Figure 5.3. Most respondents (88.2%, $N = 218$) were employed by medium (>50 employees) or large-sized (>150 employees) organisations with only 6.1% ($N = 15$) employed in the public sector, whereas 4.6% ($N = 11$) were employed by small private organisations and only 1.2% ($N = 3$) were self-employed.

Overall the respondents were employed in entry-level positions, the most common being clerical (19.9%, $N = 48$), interns/graduates programmes (16.2%, $N = 39$), accounting or finance (13.9%, $N = 34$) and marketing (10.7%, $N = 26$) (see Figure 5.3 below).

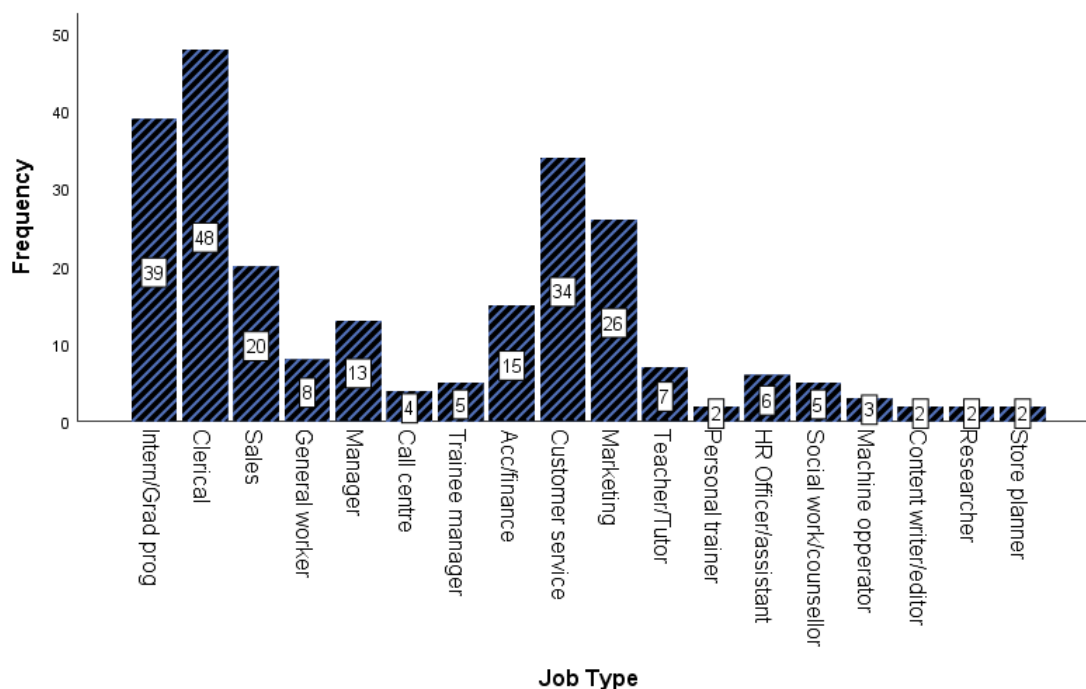


Figure 5.3. Job types follow-up respondents were employed in, $N = 244$

5.3.3.1.2 Economic sector

The respondents were employed in a broad range of economic sectors, the most frequent being retail (23.6%, $N = 57$), finance (15.7%, $N = 38$), and marketing/advertising (9.9%, $N = 24$) (see Figure 5.4 below).

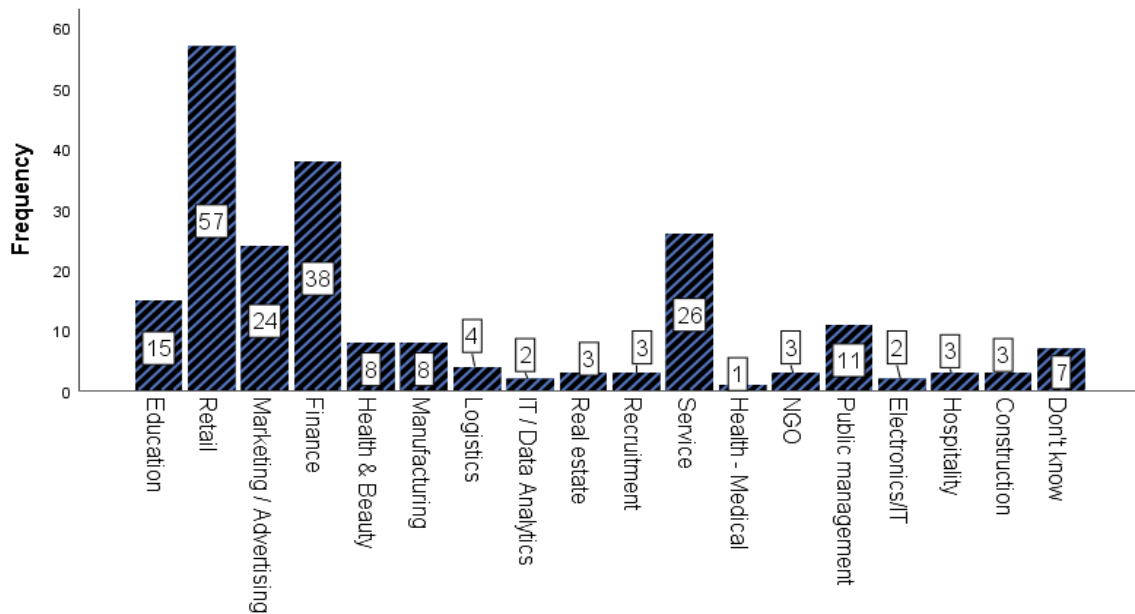


Figure 5.4. Economic sectors graduates were employed in, $N = 244$

5.3.3.1.3 How employment was found

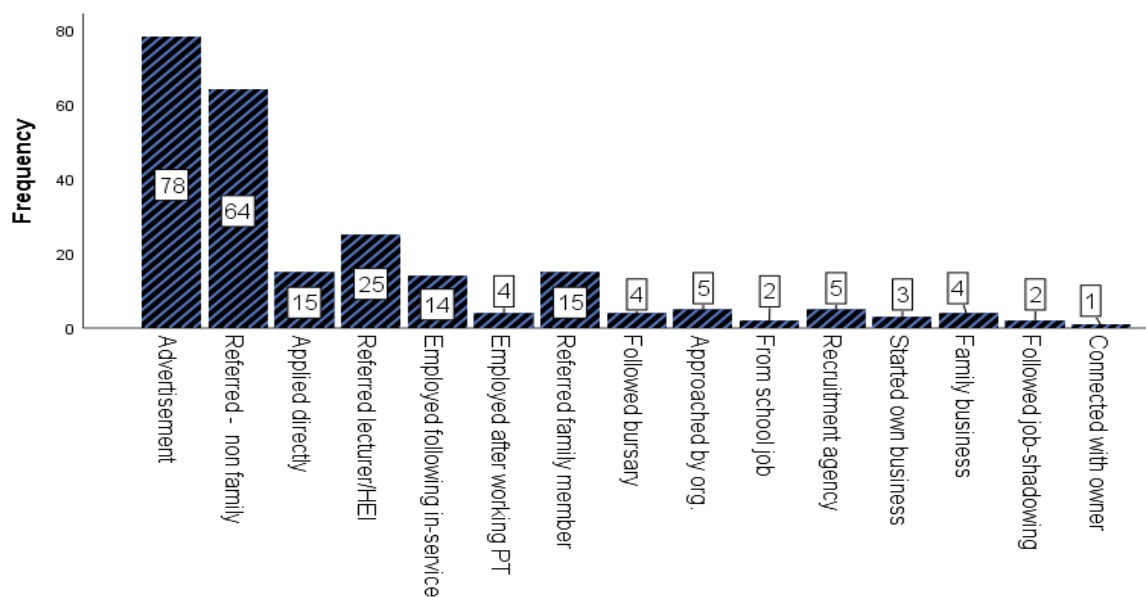


Figure 5.5. Methods employed respondents utilised to find employment, $N = 244$

The different strategies respondents followed to find employment are summarised in Figure 5.5 above. The most common strategy was consulting advertisements, either on the internet or in print (32.4%, $N = 78$). It is noteworthy that close to half of the respondents had made use of their social capital (43.2%, $N = 104$), 26.6% ($N = 64$) had been referred by a person who was not a relation, 10.4% ($N = 25$) by a lecturer or HEI and 6.2% ($N = 15$) by a family member.

5.3.3.1.4 *Qualifications and job preparedness*

Overall the respondents felt that their qualifications had prepared them for employment ($M = 4.10$, $SD = 1.47$, $N = 205$) with responses ranging between 1.00 (not at all) and 6.00 (a great deal). The reasons for the responses were summarised into four broad categories, namely that the qualification had (i) covered the key requirements of the job (73.2%, $N = 150$), (ii) provided a specific set of soft-skills helpful in the job (e.g. professionalism, time-management, resilience, ethics and outlook on the world) (14.6%, $N = 30$), (iii) provided specific practical skills (e.g. leadership, presentation, and writing skills) (3.4%, $N = 7$), and (iv) had not covered the key requirements of the job (8.8%, $N = 18$).

5.3.3.1.5 *Quality of employment indicators*

The descriptive statistics related to the six indicators used to measure the quality of employment, namely, number of days taken to gain employment, number of interviews, number of hours worked per week, satisfaction with employment and the degree to which qualifications were related to employment and salary, are described below. Finally, the descriptive statistics are presented for an integrated score for quality of employment, comprising satisfaction with employment, relatedness to studies and salary.

5.3.3.1.5.1 Time to gain employment

It took the employed respondents an average of 86.8 days ($SD = 175.2$, $Me = 91$, $N = 241$, $Min = -365$, $Max = 365$) to gain employment. As described in Section 4.6.2.1 these were calculated by counting the days between the first day of employment and 1 January 2016 (first day of the year following the completion of studies). The number of days was limited to -365 days to prevent the data from being skewed by a small number of respondents who had been employed before or throughout their studies. With the scores of the 19 respondents employed during their studies excluded, the mean increased to 130 days ($SD = 125.6$ days, $N = 220$, $Min = -365$ days, $Max = 365$ days). The data was somewhat negatively skewed $-.97$ ($SE = 0.16$) and kurtosis of $.94$ ($SE = .31$) likely being impacted upon by the respondents who had gained employment before graduating. Bootstrapping was thus applied when analysing the data.

5.3.3.1.5.2 Number of interviews before gaining employment

On average, respondents participated in an average of 2.20 ($SD = 1.99$, $N = 241$) interviews with a wide distribution ranging from zero to 25. The data was not normally distributed, with a skewness of 2.64 ($SE = .16$) and kurtosis of 9.94 ($SE = .31$), which together with the fact that the mode was one indicated that in general graduates underwent fairly small numbers of interviews before gaining employment.

5.3.3.1.5.3 Hours worked per week

The employed respondents worked an average of 38.92 hours per week ($SD = 6.06$, $Me = 40$, $Min = 5$, $Max = 52$, $N = 241$) hours per week. The data had a negative skewness of -2.14 ($SE = .16$) and kurtosis of 5.06 ($SE = .31$) indicating that most respondents (88.2%, $N = 217$) worked more than 30 hours per week and were regarded as being employed full-time.

5.3.3.1.5.4 Satisfaction with employment

On average, respondents were satisfied with their employment ($M = 4.28$, $SD = 1.47$, $N = 241$, $Min = 1$, $Max = 5$) given the 3.5 mid-point of the scale. The distribution was somewhat negatively skewed ($-.60$, $SE = .16$, $Kurtosis = -.52$, $SE = .31$). Respondents thus tended to be more satisfied with their employment than not.

5.3.3.1.5.5 Relevance of qualifications to employment

The employed respondents generally indicated that their employment was somewhat relevant to their qualifications ($M = 3.85$, $SD = 1.62$, $N = 241$, $Min =$, $Max =$, $Scale\ midpoint = 3.5$) with 38.5% ($N = 94$) reporting that their employment was unrelated to a lesser or greater extent. The data was slightly negatively skewed at $-.36$ ($SE = .16$) with a kurtosis of $-.95$ ($SE = .31$). The reasons provided for responses included employment being 'highly related' (33.63%, $N = 75$) or 'related to some aspects of their qualification' (33.18%, $N = 74$), whereas the majority who answered in the negative (27.4%, $N = 61$) simply stated 'the job was not related'.

5.3.3.1.5.6 Salary

The mean salary for employed respondents was R7,324 ($SD = R3.830$, $Me = R8,000$, $N = 241$) ranging between R0 and R28,000. The salary distribution was positively skewed (1.44 , $SE = 0.16$) and had a kurtosis of 3.97 ($SE = .31$) indicating that the respondents generally earned less than the mean salary.

5.3.3.1.5.7 Quality of employment

The quality of employment score comprised a combination of the scores for satisfaction with employment (6-point scale), relatedness employment to studies to studies (6-point scale) and salary. The salary was reduced to a six-point scale based on the values' standard deviations. The three scores for each respondent were then added together and divided by three resulting in a six-point scale for quality of employment. The scale had a mean of 3.80 ($SD = 0.96$, $Me = 4.09$, $N = 241$, $Min = 1.67$, $Max = 5.67$). The distribution was slightly negatively skewed -0.39 ($SE = .16$) with a kurtosis of $-.60$ ($SE = .32$) indicating generally higher scores for quality of employment overall.

5.3.3.2 Reasons for respondents to continue with their studies

36.17% ($N = 183$) of the follow-up respondents were studying full-time, the main reasons being to improve their qualifications (73.2%, $N = 134$), finish the qualification they had been studying for in the previous year (16.88%, $N = 31$) and to improve their work prospects (5.91%, $N = 11$). Only 1.76% ($N = 3$) indicated that they were studying because they could not find a job.

This group of respondents predominantly funded their studies through their parents or families (34.43%, $N = 63$), bursaries (22.95%, $N = 41$), NSFAS (17.49%, $N = 32$) and university debt (13.66%, $N = 25$), whilst only 6.0% ($N = 11$) were self-funded.

In total, 17.79% ($N = 83$) were working and studying part-time. Of these 78% ($N = 70$) were doing so to improve their qualification, 18% ($N = 16$) to complete their qualification and 2% ($N = 2$) to improve their work prospects. They followed a similar pattern to the full-time students in financing their studies with 33.3% ($N = 29$) being funded by parents, 18.4% ($N = 16$) self-funded, 16.1% ($N = 14$) bursary funded, 14.9% ($N = 13$) outstanding university debt and a small percentage (8.89%, $N = 8$) being funded through NSFAS.

5.3.3.3 Unemployed respondents

A relatively small percentage (14.6%, $N = 74$) of respondents in the follow-up study were unemployed a year after they had been scheduled to complete their qualifications. When removing those respondents who were continuing with their studies at the time of follow-up from the sample, the unemployment rate increased significantly to 23.0%. Those with a National Diploma (27.2%, $N = 53$) were significantly more likely to be unemployed than those with a degree (15.0%, $N = 18$) ($\chi^2(1, N = 71) = 6.31; p < .01$).

The majority of unemployed respondents (91.5%, $N = 65$) were searching for employment. Reasons provided for not attaining employment included lack of experience (45.9%, $N = 33$) and job scarcity (16.4%, $N = 12$), whereas 19.72% ($N = 14$) did not know why they had not obtained employment. Others mentioned that their studies had lacked a practical component (7.0%, $N = 5$), the workplace was corrupt, racist or nepotistic (7.0%, $N = 5$) and lacking a higher qualification (7.0%, $N = 5$) as reasons. Table 5.5 summarises the solutions proposed by the respondents that they felt would enable them to gain employment.

Table 5.5

Factors Unemployed Respondents Felt Would Help Them Gain Employment, N = 71

Factor	%	N
Gain more experience (e.g. volunteering)	23.9%	17
Universities introduce practical's/experiential learning	14.1%	10
Gain higher qualification	11.3%	8
Employers not requiring prior work experience	9.9%	7
Finishing qualification	8.4%	6
Extend existing experiential learning	7.0%	5
Taking active steps (e.g. improve skills or networks)	7.0%	5
Government creating incentives for companies to employ graduates	7.0%	5
Companies creating jobs offering work experiences	5.6%	4
Ending corruption or nepotism	2.8%	2
Universities actively facilitating graduate employment	2.8%	2
Total	100%	71

5.3.4 Experiential learning employers' perceptions of student capital

A comparatively small sample of Supervisors ($N = 94$) provided their perceptions of University of Technology respondents' different forms of identity capital based on their experiences with the student during the experiential learning period.

5.3.4.1 Perceptions of intangible identity capital

The supervisors generally rated the intangible identity capital of their experiential learning students positively with the mean being lowest for locus of control ($M = 4.71$, $SD = 1.05$, $N = 94$) and highest for ego-strength ($M = 5.17$, $SD = .96$, $N = 94$) (Scale mid-points 3.5) (see Table 5.6 below).

Table 5.6

Supervisor Ratings of Experiential Learning Students' Intangible Capital, N = 94

	Self-esteem	Purpose-in-life	LOC	Self-actualisation	Ideological commitment	Ego-strength	Agentic personality
M	4.86	4.94	4.71	5.02	5.16	5.17	5.13
SD	.98	1.00	1.05	.88	.87	.85	.96
Minimum	3	1	3	3	2	3	3
Maximum	6	6	6	6	6	6	6

Note. LOC = Locus of control, M = mean, SD = standard deviation, SE = standard error

5.3.4.2 Perceptions of tangible identity capital

The supervisors rated their perceptions of, and satisfaction with, different forms of human and linguistic capital displayed by the University of Technology student respondents during their experiential learning. Two broad indicators of employability were also measured, namely 'satisfaction with performance' and 'likelihood to employ'.

5.3.4.2.1 Perceptions of human capital

The supervisors' satisfaction with various forms of human capital possessed by their experiential learning students is outlined in Table 5.7 below. They were generally satisfied with students' human capital, with minimum scores ranging between 3 (somewhat satisfied) and 6 (very satisfied) for all but one area (understanding of the world of work) with a median score of five in all instances. Consequently, the scores were negatively skewed.

Table 5.7
Experiential learning Supervisors Satisfaction with Experiential Learning Students Human Capital, N = 94

	Computer literacy	Technical skills	Knowledge	Understanding of world-of-work	Self-confidence
M	5.05	4.68	4.57	4.69	5.04
Me	5.00	5.00	5.00	5.00	5.00
SD	.75	.90	.84	1.0	.89
Minimum	3	3	3	2	3
Maximum	6	6	6	6	6
Skewness (<i>SE</i> = .25)	-.24	-.33	-.30	-.55	-.46
Kurtosis (<i>SE</i> = .49)	-.74	-.56	-.44	-.16	-.80

Note. *M* = mean, *Me* = median, *SD* = standard deviation, *SE* = standard error

5.3.4.2.2 Perceptions of linguistic capital

The experiential learning supervisors rated their students' linguistic capital on the high side being mostly satisfied with their written (*M* = 4.90, *SD* = .98, *N* = 94) and spoken (*M* = 5.18, *SD* = .86, *N* = 94) English abilities, with a minimum of 2 and maximum of 6 on both scales.

5.3.4.2.3 Employability

Two broad proxies used to measure employability were the satisfaction with performance and likelihood that the experiential learning supervisor would want to employ the student. The scores on both dimensions were high (see Table 5.8 below).

Table 5.8
Experiential Learning Employers Satisfaction with Student Performance and the Likelihood to Employ Them, N = 94

	Satisfaction with performance	Likelihood to employ
M	5.10	5.10
Me	5.00	6.00
SD	.80	1.17
Minimum	3	1
Maximum	6	6

Note. *M* = mean, *Me*=median, *SD* = standard deviation, *SE* = standard error

5.3.5 Summary of the descriptive statistics

The five indicators of intangible identity capital had similar means varying between 3.94 ($SD = .85$) for ego strength and 4.80 ($SD = .54$) for self-actualisation ($N = 872$). The scores were combined to indicate the individual's agentic personality score. Tangible identity capital comprised financial, human, social and cultural capital. In terms of financial capital, almost two-thirds of the participants fell into the highest LSM groups (LSM 8-10), whereas three-quarters of the participants were funding their studies through NSFAS (42.5%, $N = 350$), parents or family (35.1%, $N = 306$).

Seven proxies were used to measure human capital, namely academic performance, type of qualification, number of work experience examples whilst studying, numeracy skills, computer skills, self-confidence and number of special skills or talents. At follow-up most respondents possessed a National Diploma (56.1%, $N = 489$) around 30% ($N = 256$) a Degree and around 6% either a Bachelor of Technology ($N = 60$) or Postgraduate Diploma ($N = 53$) respectively. The mean for academic performance was ($SD = 10.1\%$, $N = 600$) when including academic performance based on an average score for respondents' two third year major subjects. The respondents had undergone an average of 1.26 ($SD = .96$) examples of work experience, which increased to 1.65 ($SD = .96$, $N = 872$) when including respondents' experiential learning placement. The respondents generally viewed their self-assessed numeracy and computer skills positively as well as their self-confidence. Finally, just over half of the respondents reported that they had at least one special talent or skill.

Social capital was measured using the number of extracurricular activities students engaged in ($M = .95$, $SD = .91$, $N = 872$) and the type of extracurricular activity participated in. A total of eight categories were identified, the largest of which were sports teams, religious groups and arts and cultural organisations.

The proxies used to measure cultural capital were grouped into two sub-categories, namely academic and linguistic capital. Academic capital comprised the type of high school attended, HEI attended and familial examples of tertiary education. Over half of the respondents had at least one parent with a National Diploma or higher qualification, whilst this was the case for both parents with a quarter of the respondents. Half of the respondents had attended former model C and private schools which were considered better quality schools. One-tenth of the participants attended institutions assumed to provide the most cultural capital (Traditional University High), whereas roughly two-thirds attended University of Technology, which was assumed to provide the least cultural capital (University of Technology). Linguistic capital, a sub-category of cultural capital, was measured through home language, as well as self-perceived written and spoken English proficiency which were generally

viewed positively. The three main language groups represented in the study were Xhosa, English and Afrikaans.

In the follow-up study one year later, just under half of the respondents were working, every eighth respondent was unemployed, and the remainder were studying. The employed respondents reported holding one of 18 different job types, the majority being entry-level positions. The three most frequent types of employment were clerical, internships and customer service positions in large or medium private organisations. The predominant employment sectors were the retail, finance, services and marketing.

Most of the employed respondents were employed full-time and found employment through advertisements or utilising social interactions. They underwent an average of 2.45 ($SD = 2.83$) interviews and took an average of 91 days ($SD = 180$) to gain employment, earning R7,291 ($SD = R4,009$, $N = 213$) on average. Respondents generally felt somewhat or completely satisfied with their employment and that their employment was related to their qualifications to at least some extent.

The remainder of the respondents in the follow-up study were either unemployed or studying. The main reasons attributed to being unemployed were lack of experience and job scarcity. At the same time, unemployed respondents felt that factors such as gaining more work experience, universities introducing internships or practical components to their qualifications, gaining higher level qualifications and employers not requiring work experience, would assist them in gaining employment. The main reasons offered for studying full-time were improving or completing qualifications.

Finally, experiential learning Supervisors generally viewed their students' tangible and intangible identity capital positively. The students were also generally viewed as employable with high scores for both satisfaction with students' performance and the likelihood that they would employ the respondent if this was a possibility.

5.4 Results relating to the study propositions

5.4.1 Proposition 1: Different forms of identity capital correlate positively

It was assumed that the different forms of identity capital would correlate positively with one another. Bivariate correlations were used to explain this assumption. Spearman's (r_{ho}) was used to analyse correlations where one or both variables were ordinal, Pearson's (r) where both variables were

interval or ratio-level and point-biserial correlations when one variable was dichotomous and the other interval or ratio. The bivariate correlation coefficients are provided in Table 5.9.

5.4.1.1 Intangible and tangible sources of identity capital

The proxies for financial capital, LSM ($r_s(872) = -.12, p < .01$) and source of funding ($r_s(723) = -.13, p < .01$) correlated negatively with agentic personality scores indicating that those with less financial resources tended to indicate higher levels of intangible identity capital, though the actual coefficients were small.

In the case of human capital, respondents with greater agentic personality resources were somewhat more likely to have gone to poorer quality schools ($r_s(792) = -.09, p < .05$), attended less prestigious universities ($r_s(872) = -.20, p < .01$) and were somewhat less likely to have attended experiential learning placements ($r_s(770) = -.17, p < .01$). However, these correlations were small and likely only significant due to the large sample size. They thus carry limited practical relevance.

At the same time, there were positive correlations between agentic personality and the self-rated sources of human capital, namely computer skills ($r_s(872) = .13, p < .01$), numeracy skills ($r_s(872) = .15, p < .01$), and especially self-confidence ($r_s(872) = -.36, p < .01$) which was a medium size correlation and likely meaningful. It indicated that greater agentic personality resources were related to greater self-confidence. Agentic personality did not correlate significantly with social capital. However, it correlated weakly with linguistic capital in the form of home language ($r_s(872) = -.10, p < .01$), spoken English ($r_s(872) = .11, p < .01$) and written English ($r_s(872) = -.14, p < .01$). Xhosa speaking respondents thus tended to indicate slightly more agentic personality resources than their English or Afrikaans speaking counterparts. Similarly, those who rated their spoken and written English competencies more highly tended to possess greater agentic personality resources. Notably, these correlations were small and thus not necessarily practically meaningful.

Table 5.9

Bivariate correlations: Different Forms of Identity Capital, Race and Gender

		Intangible capital	Financial capital		Human capital					Social capital		Cultural capital												
		AP	LSM	Fund	APe	Cour	IS	WE	CL	Num	SC	Tal	FA	Sch	Uni	Academic capital			Linguistic capital					
																EE	PE	ME	FE	Lan	WEn	SE		
Fin Cap	LSM	-.13**																						
	N	872																						
	Fund	-.12**	.56**																					
	N	723	723																					
	APe	-.02	.00	.09*																				
	N	600	600	508																				
	Cou	-.14**	.32**	.27**	.18**																			
	N	858	858	709	600																			
Hum Cap	IS	-.17** ^(c)	.12* ^(c)	.12* ^(c)	.24** ^(c)	.48** ^(c)																		
	N	770	381	309	308	757																		
	WE	.02	.20**	.17**	0	.25**	.09 ^(c)																	
	N	872	870	722	600	856	379																	
	CL	.13**	0,02	0	-0,04	0,01	.17** ^(c)	0,02																
	N	872	872	723	600	858	381	870																
	Num	.15**	-.10**	-0,07	-0,05	-.11*	.03 ^(c)	-0,05	.33**															
	N	872	872	723	600	858	381	870	872															
	SC	.36**	-.07*	-.13**	-.09*	-.17**	-.06 ^(c)	0	.21**	.21**														
	N	872	872	723	600	872	381	870	872	872														
	Tal	-.03	.22**	.13**	.00	.36**	.05	.26**	.05 ^(c)	-.06	-.02													
	N	872	872	723	600	858	381	870	872	872	872													
Soc cap	FA	.03	0,04	-0,02	-.01 ^(b)	.08*	-.08	.08*	.02 ^(c)	.06	.10**	.20**												
	N	872	872	723	600	858	381	870	872	872	872	872												

			Intangible capital		Financial capital		Human capital					Social capital			Cultural capital										
			AP	LSM	Fund	APe	Cour	IS	WE	CL	Num	SC	Tal	FA	Sch	Uni	Academic capital			Linguistic capital					
																	EE	PE	ME	FE	Lan	WEn	SE		
C u l t u r a l c a p i t a l	A c a d e m i c	Sch	-.09*	.49**	.50**	-.00	.27**	.13 ^(c)	.22**	0,06	-0,05	-0,04	.20**	0,04											
		N	792	792	662	563	779	353	790	792	792	792	792	792	792										
	c a p i t a l	Uni	-.20**	.38**	.30**	.27**	.79** ^(b)	.22**	.24** ^(b)	-.07 ^(b)	-.10** ^(b)	-.20** ^(b)	.32**	.13**	.33**										
		N	872	872	723	779	858	790	870	872	872	872	872	872	872	792									
	c a p i t a l	EE	-.03	.35**	.37**	-.04 ^(b)	0,06	.00	.05	-.00 ^(c)	-.07 [†]	-.05	.10**	.10**	.37**	.12**									
		N	872	872	723	600	872	381	870	872	872	872	872	872	872	792	872								
	c a p i t a l	PE	-.03	.41**	.41**	.01 ^(b)	.20**	.10	.11**	.01 ^(c)	-.06	-.09**	.08 [†]	.04	.40**	.22**	.64**								
		N	872	872	723	600	872	381	870	872	872	872	872	872	792	872	872								
	c a p i t a l	ME	-.03	.31**	.30**	-.08 ^(b)	.14**	.08	.13**	-.01 ^(c)	-.08 [†]	-.08 [†]	.06	.04	.35**	.14**	.56**	.78**							
		N	872	872	723	600	872	381	870	872	872	872	872	872	792	872	872	872							
c a p i t a l	FE	-.03	.37**	.38**	.06 ^(b)	.18**	0,1	.079 [†]	.03 ^(c)	-0,04	-.08 [†]	.07	0,04	.35**	.21**	.54**	.90**	.46**							
	N	872	872	723	600	872	381	870	872	872	758	872	872	792	872	872	872	872							
L i n g u i s t i c	Lan	-.16**	.46**	.55**	.28** ^(b)	.38**	.19**	.27**	-.01 ^(c)	-.07	-.18**	.14	.05	.32**	.39**	-.05	-.15**	.05	.21**						
	N	758	758	638	529	758	665	756	758	758	758	758	758	758	725	863	758	758	758	758					
L i n g u i s t i c	WEn	.14**	.05	.01	-.01 ^(b)	.12**	.04	.08 [†]	.28** ^(c)	.26**	.21**	.07 [†]	.02	.07 [†]	.08 [†]	-.02	.03	.03	.02	.01					
	N	872	872	723	600	872	381	870	872	872	872	872	872	792	872	872	872	872	872	872	758				
L i n g u i s t i c	SE	.11**	.20**	.13**	-.02 ^(b)	.16**	.12 [†]	.16**	.28** ^(c)	.19**	.31**	.11**	.06	.22**	.16**	.07 [†]	.12**	.11**	.10**	-.13**	.61**				
	N	872	872	723	600	872	381	870	872	872	872	872	872	792	872	872	872	872	872	872	758	872			
R a c e & G e n d e r	Race	-.20**	.51**	.53**	.25** ^(b)	.52**	.17**	.28**	.01	-.09**	-.19**	.21**	-.00	.41**	.57**	.13**	.31**	.16**	.32**	-.49**	0,06	.16**			
	N	822	822	681	562	822	364	820	822	822	822	822	822	750	822	822	822	822	822	822	813	822	822		
R a c e & G e n d e r	Gen	.03	-.01	.07 [†]	-.13** ^(a)	.05	.01	0,04	-.03	.07 [†]	-.04	-.00	-.06	0,03	.07	.00	.04	.06	.01	.00	-.01	.02			
	N	871	871	722	599	871	380	869	871	871	871	871	871	791	871	871	871	871	871	871	862	871	871		

Note. Correlations are all Spearman unless (b) point-biserial and (c) Pearson;

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

AP = Agentic personality, LSM = Living Standards Measure, Fun = Source of funding, APe = Academic performance, Sch = School type, Uni = University, AC = Academic capital, Qual = Qualification, IS = Experiential learning attended, WE = Work experience, Com = Computer literacy, Num = Numeracy, SC = Self-confidence, Tal = Number of talents, FA = Number of extracurricular activities, AT = Types of extracurricular activities, EE = Examples of HE education in family, PE = Parental education higher than National Diploma, ME = Mother's education higher than National Diploma, FE = Father's education higher than National Diploma, Lan = Home language, WEn = Written English, SE = Spoken English

5.4.1.2 Correlations between forms of tangible identity capital

The correlations between financial, human, social and cultural capital are reviewed below. First, the correlations between the proxies representing the same form of capital are examined, followed by the correlations with the other forms of tangible identity capital.

5.4.1.2.1 Correlating the proxies for the different forms of tangible identity capital

Given that the proxies for each form of capital are assumed to be measuring the same underlying construct, they were expected to correlate positively.

5.4.1.2.1.1 Financial capital proxies

There was a strong positive correlation ($r_s(721) = .56, p < .01$) between Living Standard Measure (SM) and source of funding, the two proxies for financial capital. A cross-tabulation (see Table 5.10 below) indicated, as would be expected significant differences between the frequencies per funding source in the different Living Standard Measure (LSM) groups ($\chi^2(9, N = 766) = 237.67; p < .01$).

Respondents in LSM's 1-4 (the rural poor) depended almost exclusively on NSFAS funding or bursaries/scholarships, those in LSM's 5-7 (lower middle class) also relied heavily on NSFAS and bursaries or scholarships, but also on their families to a small extent. On the other hand, respondents in LSM 8 (upper-middle class) relied more heavily on their families, bursaries and scholarships in addition to NSFAS) and LSM 9-10 (upper class) respondents predominantly depended on parents/family and own funds, with a small number relying on NSFAS (see Table 5.10 below).

Table 5.10

Cross-Tabulation: Main Source of Funding and LSM of Family of Origin, N = 766

		Own funds	Parents/family	NSFAS	Bursary/ scholarship	Total
LSM 1-4	Count	0 _{a, b}	2 _b	18 _a	3 _{a, b}	23
	%	0.0%	8.7%	78.3%	13.0%	100.0%
LSM 5-7	Count	11 _a	24 _b	204 _c	27 _a	266
	%	4.1%	9.0%	76.7%	10.2%	100.0%
LSM 8	Count	15 _a	70 _a	97 _a	26 _a	208
	%	7.2%	33.7%	46.6%	12.5%	100.0%
LSM 9-10	Count	25 _a	177 _a	49 _b	18 _b	269
	%	9.3%	65.8%	18.2%	6.7%	100.0%
Total	Count	51	273	368	74	766
	%	6.7%	35.6%	48.0%	9.7%	100.0%

Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$).

The model this thesis examines assumes that financial capital underlies the other tangible sources of identity capital (see Chapter 2, Section 2.5) in that it facilitates the acquisition of other forms of

tangible capital. The correlations of financial capital with other forms of tangible identity capital are thus examined below.

5.4.1.2.1.2 Proxies for human capital

The correlations between the different proxies for human capital were complex. Academic performance correlated significantly with experiential learning attendance ($r_s(308) = .24, p < .01$), indicating that University of Technology respondents who performed better academically were more likely to be selected for workplace placements. Respondents who saw themselves as having more special talents or skills also tended to be more self-confident ($r_s(870) = .20, p < .01$).

Significant, but very small correlations also emerged between academic performance and self-confidence ($r_s(600) = -.09, p < .05$) and qualification studied for ($r_s(600) = .18, p < .01$). The correlations with the other proxies of human capital were not significant. Qualification also correlated positively with work experience ($r_s(856) = .25, p < .01$) and the number of talents or skills ($r_s(858) = .36, p < .01$) indicating that those with better quality qualifications were more likely to possess more special talents or skills. However, the subjective measures of human capital did not correlate significantly with the qualification studied for, or again correlated negatively with numeracy ($r_s(600) = -.11, p < .05$) and self-confidence ($r_s(872) = -.17, p < .01$).

Beyond the correlations with academic performance and qualifications studied for noted above, attending experiential learning only correlated positively with computer literacy ($r_s(381) = .17, p < .01$), however it was notable that there was not a significant correlation with work experience ($r_s(379) = .09, p = .17$). The respondents' work experience did, however, correlate positively with special talents or skills ($r_s(870) = .26, p < .01$). Finally, self-reported computer literacy correlated significantly with numeracy ($r_s(872) = .33, p < .01$) and self-confidence ($r_s(872) = .21, p < .01$), whilst numeracy also correlated positively with self-confidence ($r_s(872) = .21, p < .01$).

5.4.1.2.1.3 Proxies for social capital

The proxies for social capital, namely the number of extracurricular activities participated in and how employment was found, were compared. However, an ANOVA ($F(2,237) = .95, p = .42$) did not detect any significant differences in the number of extracurricular activities participated depending on which methods used to gain employment, including social capital.

5.4.1.2.1.4 Cultural capital proxies

The proxies for cultural capital generally correlated significantly with each other. In the case of academic capital, those who attended better quality schools were also more likely to attend more

prestigious universities ($r_s(792) = .33, p < .01$) and had more parental examples of HE education with a National Diploma or higher ($r_s(892) = .40, p < .01$). The correlation between HE and the quality of university was significant, but slightly weaker ($r_s(892) = .22, p < .01$). The University of Technology respondents were significantly more likely to have attended an ordinary school, whereas the Traditional University High almost exclusively attended former Model C and private schools ($\chi^2(4, N = 792) = 175.17; p < .01$) (see Table 5.11 below).

Table 5.11
Cross-tabulation: School Type and Type of University

		University of Technology	Traditional University Medium	Traditional University High	Total
Ordinary	Count	287 _a	95 _b	2 _c	384
	%	58.0%	44.4%	2.4%	48.5%
Former Model C	Count	165 _a	99 _b	34 _{a, b}	298
	%	33.3%	46.3%	41.0%	37.6%
Private	Count	43 _a	20 _a	47 _b	110
	%	8.7%	9.3%	56.6%	13.9%
Total	Count	495	214	83	792
	%	100.0%	100.0%	100.0%	100.0%

Note. Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$).

The number of parental examples with HE correlated intermediately with the type of school attended by the students ($r_s(792) = .40, p < .01$). The strength of the correlation was the same, regardless of whether the correlation between quality of school attended and mother of father's education ($r_s(792) = .35, p < .01$). The correlation between parents HE and the type of university attended was somewhat weaker, namely for mothers ($r_s(872) = .14, p < .01$) and fathers ($r_s(872) = .21, p < .01$).

The correlations for linguistic capital were weaker except for a strong correlation between the respondents' self-ratings of spoken and written English ($r_s(872) = .61, p < .01$). Notably, the correlations between home language and self-ratings of spoken English ($r_s(863) = .09, p < .01$) and written English ($r_s(863) = .00, p = .10$) were close to zero. Similarly, the means for self-assessed English proficiency were comparable for English mother-tongue speakers and those who did not identify English as their home language. Perceived written English ability was identical for non-English ($M = 4.80, SD = .80, N = 621$) and English mother tongue participants ($M = 4.80, SD = .83, N = 242$), whilst the mean for perceived spoken English for non-English speakers ($M = 4.71, SD = .85, N = 621$) was marginally lower than for native English speakers ($M = 4.89, SD = .86, N = 242$).

There were mixed results for the correlations between the proxies for academic and linguistic capital. Intermediate correlations between home language and both school ($r_s(872) = -.32, p < .01$) and type of university attended ($r_s(872) = .39, p < .01$) emerged. Xhosa speakers were more likely to have

attended ordinary schools ($\chi^2 (4, N = 725) = 159.63; p <.01$) and be registered at the University of Technology ($\chi^2 (4, N = 758) = 381.92; p <.01$) (see Tables 5.12 and 5.13 below).

Table 5.12

Cross-Tabulation: Home Language and Type of School Attended, N = 725

		Ordinary	Former Model C	Private	Total
English	Count	70 _a	140 _b	21 _a	231
	%	20.1%	49.6%	22.3%	31.9%
Afrikaans	Count	41 _a	56 _b	48 _c	145
	%	11.7%	19.9%	51.1%	20.0%
Xhosa	Count	238 _a	86 _b	25 _b	349
	%	68.2%	30.5%	26.6%	48.1%
Total	Count	349	282	94	725
	%	100.0%	100.0%	100.0%	100.0%

Note. Subscript letters denote categories whose column proportions do not differ significantly ($p <.05$).

There were also significant, but very small, correlations between home language and the number of parents with HE ($r_s (758) = -.15, p <.01$) as well perceived spoken English ability ($r_s (872) = .12, p <.01$) meaning that first language English speakers had a higher probability of having parents with HE and rated had somewhat better spoken English abilities.

Table 5.13

Cross-Tabulation: Home Language and Type of University Attended, N = 758

		University of Technology	Traditional University Medium	Traditional University High	Total
English	Count	113 _a	118 _b	11 _c	242
	%	24.5%	56.7%	12.5%	31.9%
Afrikaans	Count	38 _a	44 _b	76 _c	158
	%	8.2%	21.2%	86.4%	20.8%
Xhosa	Count	311 _a	46 _b	1 _c	358
	%	67.3%	22.1%	1.1%	47.2%
Total	Count	462	208	88	758
	%	100.0%	100.0%	100.0%	100.0%

Note. Subscript letters denote categories whose column proportions do not differ significantly ($p <.05$).

5.4.1.2.2 *Correlations between financial capital and other sources of intangible identity capital*

5.4.1.2.2.1 Financial and human capital

The proxies used to measure human capital, namely academic performance, qualification registered for, experiential learning, work experience, computer literacy, numeracy, self-confidence and number of special talents or skills, were correlated with the proxies for financial capital.

The relationships between financial capital and the proxies of human capital were not as clear-cut. There was almost no correlation between Living Standard Measure (LSM) and academic performance ($r_s(598) = .02, p = .59$). Conversely, a small positive correlation emerged between the source of funding and academic performance ($r_s(506) = .09, p < .05$). Given that this correlation was small, it was not necessarily meaningful.

Table 5.14

Cross-Tabulation: LSM of Family of Origin and Qualification, N = 858

		National Diploma	Degree	Batchelor of Technology	Postgraduate Diploma	Total
LSM 1-4	Count	23 _a	1 _b	1 _{a, b}	0 _{a, b}	25
	%	4.7%	0.4%	1.7%	0.0%	2.9%
LSM 5-7	Count	217 _a	55 _b	23 _a	0 _c	295
	%	44.4%	21.5%	38.3%	0.0%	34.4%
LSM 8	Count	131 _{a, b}	83 _b	17 _{a, b}	6 _a	237
	%	26.8%	32.4%	28.3%	11.3%	27.6%
LSM 9-10	Count	118 _a	117 _b	19 _{a, b}	47 _c	301
	%	24.1%	45.7%	31.7%	88.7%	35.1%
	Count	489	256	60	53	858
	%	100.0%	100.0%	100.0%	100.0%	100.0%

Note. Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$).

Positive correlations of a medium size were found between the type of qualification studied for and both LSM ($r_s(858) = .32, p < .01$) and source of funding ($r_s(709) = .27, p < .01$) indicating that students from more affluent families tended to study more desirable qualifications such as degrees as opposed to a National Diploma. Chi-Square tests of independence indicated significant differences in frequencies between qualification and LSM ($\chi^2(9, N = 858) = 133.84; p < .01$) (see Table 5.14 above) and source of funding ($\chi^2(3, N = 709) = 69.71; p < .01$) (see Table 5.15 below). Respondents studying towards a National Diploma and Batchelor of Technology were significantly more likely to come from families with lower LSM and more likely to make use of NSFAS funding. As only the University of Technology offered the National Diploma and Batchelor of Technology qualifications it implied that they were also more likely to study at this institution.

Attending experiential learning correlated equally with LSM and source of funding ($r_s(309) = .12, p < .05$), whereas the number of examples of work experiences had slightly stronger correlations with both LSM ($r_s(868) = .20, p < .01$) and source of funding ($r_s(720) = .17, p < .01$). Those with greater access to financial capital were thus more likely to have access to work experience or experiential learning.

Table 5.15

Cross-Tabulation: Source of Funding and Qualification, N = 709

		ND	Degree	Batchelor of Technology	Postgraduate Diploma	Total	
NSFAS	Count	249 _a	101 _b	17 _{a, b}	0 _c	367	
	%	61.9%	45.1%	44.7%	0.0%	51.8%	
Own/ parents/ family	Count	153 _a	123 _b	21 _{a, b}	45 _c	342	
	%	38.1%	54.9%	55.3%	100.0%	48.2%	
		Count	402	224	38	45	709
		%	100.0%	100.0%	100.0%	100.0%	100.0%

Note. Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$).

The relationship between the self-rated proxies of human capital was less clear. Self-assessed computer literacy did not correlate significantly with either LSM ($r_s(872) = .02, p = .47$) or source of funding ($r_s(723) = .00, p = .94$), whereas self-perceived numeracy skills correlated negatively with LSM ($r_s(870) = -.10, p < .01$) and non-significantly with source of funding ($r_s(721) = -.07, p = .08$). Self-confidence further correlated significantly, but negatively, with both LSM ($r_s(870) = -.07, p < .05$) and source of funding ($r_s(721) = -.13, p < .01$). Thus, respondents with greater self-rated numeracy skills and self-confidence tended to be somewhat less well-off financially. Given that the correlation coefficients were small in all cases, the findings likely had limited practical relevance.

Finally, the number of unique talents or skills possessed correlated significantly with both LSM ($r_s(870) = .22, p < .01$) and source of funding ($r_s(721) = .13, p < .01$). Thus, access to greater financial capital may facilitate the development of these to some extent. The assumption that tangible indicators of financial and human capital would correlate was thus supported for most indicators.

5.4.1.2.2.2 Financial and social capital

The proxies used for social capital included the number of extracurricular activities participated in, the types of activities and the process used to obtain employment. The assumption that financial capital would correlate positively with social capital was not supported given that the number of university extracurricular activities participated in did not correlate significantly with either LSM ($r_s(872) = .04, p = .20$) or source of funding ($r_s(723) = -.02, p = .65$).

However, in the case of the types of activities there were significant differences between both LSM ($\chi^2(15, N = 558) = 33.87; p < .01$) and source of funding ($\chi^2(5, N = 448) = 16.28; p < .01$). Those who participated in religious activities were significantly ($p < .05$) more likely to emanate from families with lower LSM's (see Table 5.16 above) and make use of NSFAS funding (see Table 5.17 below), whereas

those who acted as tutors/research assistants were more likely to make use of their own, parents or family funding.

Table 5.16

Cross-Tabulation: LSM of Family of Origin and Types of Extracurricular Activity, N = 550

		LSM 1-4	LSM 5-7	LSM 8	LSM 9-10	Total
Tutor/lab/research assistant	<i>N</i>	3 _a	42 _a	36 _a	68 _a	149
	%	2.0%	28.2%	24.2%	45.6%	100.0%
Religious groups	<i>N</i>	7 _{a, b}	50 _b	25 _{a, b}	32 _a	114
	%	6.1%	43.9%	21.9%	28.1%	100.0%
Sports teams	<i>N</i>	6 _a	60 _a	36 _a	59 _a	161
	%	3.7%	37.3%	22.4%	36.6%	100.0%
Arts/culture organisation	<i>N</i>	0 _a	19 _a	9 _a	21 _a	49
	%	0.0%	38.8%	18.4%	42.9%	100.0%
Student governance	<i>N</i>	2 _a	7 _a	4 _a	14 _a	27
	%	7.4%	25.9%	14.8%	51.9%	100.0%
Other	<i>N</i>	0 _{a, b}	11 _b	22 _a	17 _{a, b}	50
	%	0.0%	22.0%	44.0%	34.0%	100.0%
Total	<i>N</i>	18	189	132	211	550
	%	3.3%	34.4%	24.0%	38.4%	100.0%

Note. Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$).

Employed respondents at the time of follow-up who had used social capital to obtain employment did not differ significantly from those who used other methods with regards to LSM ($\chi^2(9, N = 241) = 4.96$; $p = .84$) and source of funding ($\chi^2(12, N = 241) = 11.50$; $p = .49$).

Table 5.17

Cross-Tabulation: Source of Funding and Type of Extracurricular Activity, N = 448

		NSFAS	Own funds/ parents/family	Total
Tutor/lab/research assistant	<i>N</i>	49 _a	65 _b	114
	%	43.0%	57.0%	100.0%
Religious groups	<i>N</i>	63 _a	29 _b	92
	%	68.5%	31.5%	100.0%
Sports teams	<i>N</i>	69 _a	66 _a	135
	%	51.1%	48.9%	100.0%
Arts/culture organisation	<i>N</i>	22 _a	17 _a	39
	%	56.4%	43.6%	100.0%
Student governance	<i>N</i>	12 _a	12 _a	24
	%	50.0%	50.0%	100.0%
Other	<i>N</i>	18 _a	26 _a	44
	%	40.9%	59.1%	100.0%
Total	<i>N</i>	233	215	448
	%	52.0%	48.0%	100.0%

Note. Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$).

5.4.1.2.2.3 Financial and cultural capital

Cultural and financial capital were expected to correlate positively. The proxies used to measure cultural capital were school type, type of university attended and examples in the respondents' family who possessed a National Diploma or higher qualification. Linguistic capital, as a sub-category of cultural capital, was measured through home language and perceived competence in written and spoken English. School type correlated strongly with both, LSM (r_s (790) = .49, $p < .01$) and source of funding (r_s (660) = .50, $p < .01$), indicating that the greater the respondents' access to financial capital, the better-quality schools they tended to attend. Significant, though somewhat weaker, correlations also emerged between university attended and LSM (r_s (870) = .38, $p < .01$) and source of funding (r_s (721) = .30, $p < .01$), i.e. those with more financial capital were likely to attend more prestigious HEIs.

The number of family members with at least a National Diploma correlated at medium strength with LSM (r_s (870) = .35, $p < .01$) and source of financing (r_s (721) = .37, $p < .01$). The same was the case when considering only Parents' education was particularly relevant in that it correlated with both LSM (r_s (870) = .41, $p < .01$) and source of funding (r_s (721) = .41, $p < .01$). The correlation with father's education levels (LSM: r_s (870) = .37, $p < .01$; source of funding: r_s (721) = .38, $p < .01$) were slightly stronger than for mother's education levels (LSM: r_s (870) = .31, $p < .01$) and source of funding (r_s (721) = .30, $p < .01$).

Table 5.18

Cross-Tabulation: LSM of Family of Origin and Home Language, N = 758

		English	Afrikaans	Xhosa	Total
LSM 1-4	<i>N</i>	0 _a	0 _a	20 _b	20
	%	0.0%	0.0%	5.6%	2.6%
LSM 5-7	<i>N</i>	32 _a	23 _a	203 _b	258
	%	13.2%	14.6%	56.7%	34.0%
LSM 8	<i>N</i>	100 _a	34 _b	83 _b	217
	%	41.3%	21.5%	23.2%	28.6%
LSM 9-10	<i>N</i>	110 _a	101 _b	52 _c	263
	%	45.5%	63.9%	14.5%	34.7%
Total	<i>N</i>	242	158	358	758
	%	100.0%	100.0%	100.0%	100.0%

Note. Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$).

With linguistic capital, home language correlated strongly with both LSM ($r_s(758) = -.48, p < .01$) and source of financing ($r_s(638) = -.55, p < .01$). The Chi square test of independence were significant for both home language and LSM ($\chi^2(6, N = 758) = 233.88; p < .01$) and source of funding ($\chi^2(2, N = 638) = 220.20; p < .01$), revealing that Xhosa speakers generally had access to less financial capital than their English and Afrikaans counterparts (see Table 5.18 above and 5.19 below).

Table 5.19

Cross-Tabulation: Source of Funding and Home Language, N = 758

		English	Afrikaans	Xhosa	Total
NSFAS	<i>N</i>	52 _a	31 _a	260 _b	343
	%	26.5%	23.5%	83.9%	53.8%
Own funds/parents/ family	<i>N</i>	144 _a	101 _a	50 _b	295
	%	73.5%	76.5%	16.1%	46.2%
	<i>N</i>	196	132	310	638
	%	100.0%	100.0%	100.0%	100.0%

Note. Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$).

This also held true for perceived spoken English competency which correlated, though weak, with LSM ($r_s(870) = .20, p < .01$) and weakly with source of funding ($r_s(870) = .13, p < .01$). This was not the case for perceptions of written English which did not correlate significantly with LSM ($r_s(870) = .05, p = .17$) or source of funding ($r_s(721) = .01, p = .75$).

The hypothesis that financial capital would correlate positively with other tangible forms of identity capital was thus largely supported, except in the case of social capital.

5.4.1.2.3 *Correlations between human capital and other tangible sources of identity capital*

The correlations between human, social and cultural capital are examined below whilst the correlations with financial capital were examined in Section 5.4.1.2.1.1 above.

5.4.1.2.3.1 Human and social capital

The correlations between human and social capital proxies generated mixed results. No significant correlations emerged between the number of extracurricular activities, as a proxy for social capital, and the type of school attended, academic performance, perceived computer skills and perceived numeracy (see Table 5.9). However, small positive correlations emerged with the type of university ($r_s(870) = .13, p < .01$) and number of extracurricular activities which students participated in ($r_s(870) =$

.13, $p < .01$). The frequency of extracurricular activities thus differed between HEIs. An ANOVA with HEI attended as dependent variable was significant ($F(2,869) = 9.51, p < .01$). Levene's test indicated equality of variance ($F(2, 869) = 4.39, p = .51$). Bonferroni's post-hoc test showed the University of Technology respondents ($M = .85, SD = .85, N = 549$) were significantly less likely to participate in extracurricular activities than either the Traditional University Medium ($M = 1.13, SD = .99, N = 226$) or their Traditional University High counterparts ($M = 1.15, SD = .99, N = 97$) ($p < .01$).

Significant also differences existed between students at the different HEIs with regards to the type of extracurricular activities students participated in (Chi squared test: $\chi^2(10, N = 550) = 50.00; p < .01$) with University of Technology respondents were significantly less likely to act as tutors, laboratory assistants or research assistants and more likely to be involved in religious groups. Concurrently, the Traditional University Medium students were less likely to participate in sports teams or arts and cultural organisations than their University of Technology, and their Traditional University High counterparts (see Table 5.20 below).

Table 5.20

Cross-Tabulation: Type of University Attended and Type of Extracurricular Activity, N = 550

		University of Technology	Traditional University Medium	Traditional University High	Total
Tutor/laboratory/research assistant	Count	61 _a	65 _b	23 _b	149
	%	18.3%	43.0%	35.4%	27.1%
Religious groups	Count	82 _a	26 _{a, b}	6 _b	114
	%	24.6%	17.2%	9.2%	20.7%
Sports teams	Count	112 _a	28 _b	21 _a	161
	%	33.5%	18.5%	32.3%	29.3%
Arts or culture organisation	Count	36 _a	6 _b	7 _{a, b}	49
	%	10.8%	4.0%	10.8%	8.9%
Student governance	Count	16 _a	7 _a	4 _a	27
	%	4.8%	4.6%	6.2%	4.9%
Other	Count	27 _a	19 _a	4 _a	50
	%	8.1%	12.6%	6.2%	9.1%
Total	Count	334	151	65	550

Note. Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$)

A small positive correlation emerged between self-confidence and frequency of activities ($r_s(872) = .10, p < .01$) indicating those with more self-confidence were somewhat more likely to participate in extracurricular activities. There was also a small correlation between the type of qualification students studied towards and the number of extracurricular activities engaged in ($r_s(870) = .08, p < .05$). Those who were completing a National Diploma ($M = .87, SD = .85, N = 489$) or Bachelor of Technology ($M = .73, SD = .82, N = 60$) tended to participate in fewer extracurricular activities than those completing

a degree ($M = 1.12$, $SD = .96$, $N = 256$) ($F(3,854) = 14.31$, $p < .01$; Levine's test: $F(3, 854) = 2.410$, $p = .07$); Bonferroni post-hoc test).

The number of extracurricular activities engaged in had a small positive correlation with the number of work experience examples ($r_s(548) = .08$, $p < .05$) and experiential learning ($r_s(770) = .14$, $p < .01$), with those who participated in extracurricular activities being more likely to have gained work experience through part-time employment. However, an ANOVA indicated no significant differences in the types of extracurricular activities and the number of examples of work experience ($F(5,544) = 1.36$, $p = .24$). Although an ANOVA ($F(5,306) = 3.11$, $p < .01$) indicated there were significant differences between those who had completed an experiential learning experience with regards the type of extracurricular activities participated in Tamhane's post hoc test failed to identify specific differences. Tamhane's test was applied, as Levene's test ($F(5, 306) = 3.11$, $p < .01$) was significant, indicating there were not equal variances between groups.

5.4.1.2.3 *Correlations between social and cultural capital*

Most proxies for cultural capital did not correlate significantly with the number of extracurricular activities students engaged in (see Table 5.9). An exception was a small negative correlation ($r_s(872) = -.10$, $p < .01$) between examples of education in the family (ND or higher) and the number of extracurricular activities, indicating that those from more educated families were more likely to participate in extracurricular activities. Home language did not impact the probability of participating in extracurricular activities participated in ($F(1,861) = 2.47$, $p = .12$) however, there were significant differences in the type of activities participated in ($\chi^2(10, N = 467) = 75.09$; $p < .01$). English and Afrikaans speakers were significantly ($p < .05$) more likely than Xhosa speakers to act as tutors, laboratory assistants or research assistants, however the opposite pattern was true in terms of participation in religious groups. Xhosa speakers were also more likely to participate in sports teams and arts/cultural organisations than Afrikaans and English speakers (see Table 5.21 below; all $p < .05$).

Table 5.21

Cross-Tabulation: Type of Extracurricular Activity and Home Language, N = 467

		English	Afrikaans	Xhosa	Total
Tutor, laboratory or research assistant	<i>N</i>	63 _a	36 _a	35 _b	134
	%	46.3%	36.7%	15.0%	28.7%
Religious groups	<i>N</i>	17 _a	10 _a	67 _b	94
	%	12.5%	10.2%	28.8%	20.1%
Sports teams	<i>N</i>	29 _a	28 _{a, b}	77 _b	134
	%	21.3%	28.6%	33.0%	28.7%
Arts/culture organisation	<i>N</i>	4 _a	9 _{a, b}	26 _b	39
	%	2.9%	9.2%	11.2%	8.4%
Student governance	<i>N</i>	2 _a	7 _a	15 _a	24
	%	1.5%	7.1%	6.4%	5.1%
Other	<i>N</i>	21 _a	8 _{a, b}	13 _b	42
	%	15.4%	8.2%	5.6%	9.0%
Total	<i>N</i>	136	98	233	467

Note. Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$)

5.4.1.3 Conclusions about how the different forms of tangible identity capital correlate

The first proposition that the different forms of identity capital would correlate with one another was supported to some extent, but proxies used to measure the different forms of capital did not correlate consistently. Financial capital proxies correlated strongly with one another, with those from lower LSM's more likely to be using NSFAS funding. This was expected given that these were both indicators of the student family's financial prosperity. The correlations between the proxies for human capital were generally small or insignificant, the exceptions being the associations between qualifications studied for, work experience and the number of special talents or skills which correlated with each other. Those with better qualifications were thus more likely to possess more special talents or skills and have gained a greater number of different work experiences. Those who reported more special talents or skills also tended to be more self-confident. The two proxies for social capital, namely the number of extracurricular activities participated in and the type of method used to gain employment did not correlate. Cultural capital comprised two-sub-categories, namely academic and linguistic capital. The academic capital proxies all correlated intermediately with those who attended better quality schools being more likely to attend more prestigious universities and having more examples of parents with a National Diploma or higher qualification. In the case of linguistic capital, there were strong correlations between perceptions of spoken and written English competency, however, home language was not, or only weakly, related to self-perceived English competency. Overall linguistic and academic capital proxies did also correlate positively, the exception being Xhosa speakers who were less likely to attend better quality schools and universities.

When the different forms of capital were compared with one another the results were also mixed. Financial capital correlated with the type of qualification studied towards, did not correlate with

academic performance. Respondents from more affluent families were thus more likely to register for better quality qualifications, but not to perform better academically. They were also somewhat more likely to have had more part-time work experience whilst studying and to have reported more examples of talents or skills. Although social and financial capital did not correlate overall, those from poorer families were more likely to be involved in religious activities and less likely to have acted as tutors or laboratory/research assistants. When it came to cultural capital in the form of academic capital, those from more affluent families were more likely to have parents with a National Diploma or higher qualification, have attended a better-quality school and be registered at a more prestigious HEI. This was not unexpected given that these all require more financial resources. Linguistic capital was relevant in that English speakers tended to come from more affluent families than Afrikaans or Xhosa speakers.

In the case of human and social capital University of Technology students were somewhat less likely to participate in extracurricular activities and less likely to act as tutors, laboratory assistants or research assistants and more likely to be involved in religious groups. The proxies for social capital generally did not correlate with those for cultural capital except for a small correlation between home language and frequency of extracurricular activities participated in. Xhosa speakers were more likely to participate in religious activities compared with English speakers, who were more likely to be tutors or research/laboratory assistants.

5.4.2 Proposition 2: Identity capital correlates with race and gender³

The second proposition examined in the study was that racial group membership and gender related to identity capital. Although race and gender are nominal variables, they were treated as ordinal variables in this study. In the case of gender, females were regarded as less advantaged compared to males. Given that gender is a dichotomous variable use was made of point biserial correlations (r_{pb}) to examine possible correlations. In the case of race, the assumption followed was that respondents who self-identified as black were less privileged than those who self-identified as coloured who were in-turn less privileged than those who self-identified as white. Spearman rank correlation coefficients (r_{ho}) were used to examine the correlations here.

5.4.2.1 Race and forms of identity capital

Race consistently correlated with the proxies for the different forms of identity capital, the only exceptions being the number of extracurricular activities participated in and self-perceived written

³ All references to race and gender are those self-identified by the respondents.

English competency (see Tables 5.9). These correlations, together with differences in frequencies or means when relevant, are discussed below.

5.4.2.1.1 Race and agentic personality

Race correlated negatively with agentic personality ($r_s(822) = -.21, p < .01$). An ANOVA established that black respondents' agentic personality scores ($M = 4.55, SD = .45, N = 465$) were significantly ($p < .05$) higher than coloured ($M = 4.42, SD = .48, N = 227$) and white respondents ($M = 4.33, SD = .46, N = 130$) ($F(2, 819) = 14.84, p < .01$; Levine's statistic: $F(2, 819) = .67, p = .51$; Bonferroni post hoc test), suggesting that black respondents needed to develop greater agentic personality resources in order to deal with their life challenges. However, it was also noteworthy that black respondents generally rated themselves higher on variables where they provided a self-rating.

5.4.2.1.2 Race and financial capital

Living Standard Measure (LSM) varied significantly by race ($\chi^2(2, 821) = 265.53; p < .01$) with respondents who self-identified as black were more likely to come from families of lower LSM's (LSM 1-7, 61.1%, $N = 250$), those who self-identified as coloured from LSM 8 (42.7%, $N = 97$) and those who self-identified as white respondents disproportionately represented in LSM 9-10 (83.1%, $N = 108$) (see Table 5.22 below).

Table 5.22

Cross-Tabulation: Self-identified Race and LSM of Family of Origin, N = 822

		Black	Coloured	White	Total
LSM 1-4	Count	25 _a	0 _b	0 _b	25
	%	5.4%	0.0%	0.0%	3.0%
LSM 5-7	Count	245 _a	44 _b	1 _c	290
	%	52.7%	19.4%	0.8%	35.3%
LSM 8	Count	100 _a	97 _b	21 _a	218
	%	21.5%	42.7%	16.2%	26.5%
LSM 9-10	Count	95 _a	86 _b	108 _c	289
	%	20.4%	37.9%	83.1%	35.2%
Total	Count	465	227	130	822

Note. Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$)

These trends were also reflected in the source of funding ($\chi^2(2, N = 681) = 194.86; p < .01$) outlined in Table 5.23 below. Black respondents relied more on NSFAS funding (73%, $N = 287$) compared with coloured (38.4%, $N = 68$) and white respondents (1.8%, $N = 2$) whilst the opposite pattern was evident for private funding.

Table 5.23

Cross-Tabulation: Self-identified Race and Source of Funding, N = 681

		Black	Coloured	White	Total
NSFAS	Count	287 _a	68 _b	2 _c	357
	%	73.0%	38.4%	1.8%	52.4%
Own funds /parents/family	Count	106 _a	109 _b	109 _c	324
	%	27.0%	61.6%	98.2%	47.6%
Total	Count	393	177	111	681
	%	100.0%	100.0%	100.0%	100.0%

Note. Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$)

5.4.2.1.3 Race and human capital

The racial distribution for race within the different types of qualification generally followed institutional patterns ($\chi^2 (6, N = 810) = 391.10; p < .01$) with black respondents more likely to be registered for a National Diploma, coloured individuals for a National Diploma or degree and white students being more likely than others to study towards a degree or Postgraduate Diploma (see Table 5.24 below). Members of different racial groups also differed in their academic grades ANOVA results: $F(2, 559) = 17.08, p < .01$) with the means for black respondents' ($M = 60.73\%, SD = 9.96\%, N = 365$) being significantly ($p < .05$) lower than their coloured ($M = 65.63\%, SD = 9.69\%, N = 170$) and white ($M = 67.0\%, SD = 10.75\%, N = 27$) counterparts (Levine's statistic: $F(2, 559) = .56, p = .514$; Bonferroni post-hoc test, $p < .05$).

Table 5.24

Cross-Tabulation: Self-identified Race and Type of Qualification, N = 810

		Black	Coloured	White	Total
ND	<i>N</i>	356 _a	90 _b	24 _c	470
	%	76.9%	40.4%	19.4%	58.0%
Batchelor of Technology	<i>N</i>	39 _a	17 _a	1 _b	57
	%	8.4%	7.6%	0.8%	7.0%
Degree	<i>N</i>	64 _a	115 _b	52 _b	231
	%	13.8%	51.6%	41.9%	28.5%
Postgraduate Diploma	<i>N</i>	4 _a	1 _a	47 _b	52
	%	0.9%	0.4%	37.9%	6.4%
Total	<i>N</i>	463	223	124	810
	%	100.0%	100.0%	100.0%	100.0%

Note. Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$).

Black respondents were significantly less likely to have undergone experiential learning than either their coloured or white counterparts studying at University of Technology ($\chi^2 (2, N = 499) = 27.63; p < .01$) (see Table 5.25 below). Similarly, black respondents ($M = 1.01, SD = .88, N = 464$) had significantly ($p < .05$) fewer examples of work experience than either their coloured ($M = 1.45, SD = .90, N = 226$) or white ($M = 1.70, SD = 1.00, N = 130$) counterparts ($F(2, 817) = 37.53, p < .01$) (Levine's statistic: $F(2, 817) = 11.25, p < .01$; Tamhane's post-hoc test, $p < .05$).

Black respondents ($M = .61$, $SD = .74$, $N = 465$) also reported significantly lower numbers of special talents or skills than their coloured ($M = .75$, $SD = .75$, $N = 227$) counterparts, who in turn reported significantly fewer talents or skills than white respondents ($M = 1.20$, $SD = 1.01$, $N = 130$) (ANOVA results: $F(2, 819) = 28.22$, $p < .01$; Levine's statistic: $F(2, 817) = 11.25$, $p < .01$; Tamhane's post-hoc test).

Table 5.25

Cross-Tabulation: Self-identified Race and in Experiential Learning, N = 497

		Black	Coloured	White	Total
Yes	Count	248 _a	91 _b	23 _b	362
	%	66.5%	89.2%	95.8%	72.8%
No	Count	125 _a	11 _b	1 _b	137
	%	33.5%	10.8%	4.2%	27.2%
Total		371	102	24	499

Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$).

Whereas black and, to a lesser degree, coloured respondents, were generally worse off than white respondents with regards to the more objective indicators of human capital the opposite was observed in relation to the self-assessed proxies. Black students ($M = 4.46$, $SD = .91$, $N = 465$) viewed their numeracy capabilities significantly higher than their coloured counterparts ($M = 4.23$, $SD = .96$, $N = 227$) ($F(2, 819) = 5.25$; $p < .01$, Levine's test: $F(2, 819) = .60$, $p = .49$; Bonferroni post-hoc test, $p < .05$). Black respondents ($M = 5.03$, $SD = .95$, $N = 465$) also had significantly higher self-confidence scores than either their coloured ($M = 4.74$, $SD = .99$, $N = 227$) or white ($M = 4.61$, $SD = .97$, $N = 130$) counterparts (ANOVA results: $F(2, 819) = 24.56$, $p < .01$; Levene's test: $F(2, 819) = 1.50$, $p = .22$; Bonferroni post-hoc test).

5.4.2.1.4 Race and social capital

Participation in the number of extracurricular activities differed significantly by race ($F(2, 819) = 5.25$; $p < .01$) with the number of activities for black respondents ($M = 0.97$, $SD = 0.88$, $N = 465$) being slightly higher than for coloured participants ($M = 0.75$, $SD = 0.75$, $N = 227$) and lower than white students ($M = 1.19$, $SD = 1.01$, $N = 130$) (Levene's test: $F(2, 819) = 4.49$, $p < .01$; Tamhane's post-hoc test).

Type of extracurricular activity also varied by race ($\chi^2(10, N = 517) = 81.33$; $p < .01$). Black respondents (15.9%, $N = 49$) were significantly ($p < .05$) less likely to be tutors, laboratory or research assistants than white (33.0%, $N = 30$) or coloured (49.2%, $N = 58$) individuals ($p < .05$). On the other hand, black respondents (27.6%, $N = 85$) were the most frequent participants in religious groups, whereas coloured respondents were significantly less likely to be involved in sports teams (16.9%, $N = 20$) or arts and cultural organisations (3.4%, $N = 4$) ($p < .05$) (see Table 5.26 below). At the same time graduates from all racial group were all equally likely to have used social capital to gain employment

when considering participation in extracurricular activities as a proxy for social capital ($\chi^2 (6, N = 227) = 4.16; p = .66$).

Table 5.26

Cross-tabulation: Self-identified Race and Type of Extracurricular Activity, N = 822

		Black	Coloured	White	Total
Tutor/laboratory/ research assistant	<i>N</i>	49 _a	58 _b	30 _b	137
	%	15.9%	49.2%	33.0%	26.5%
Religious groups	<i>N</i>	85 _a	14 _b	8 _b	107
	%	27.6%	11.9%	8.8%	20.7%
Sports teams	<i>N</i>	102 _a	20 _b	32 _a	154
	%	33.1%	16.9%	35.2%	29.8%
Arts/culture organisation	<i>N</i>	36 _a	4 _b	9 _{a, b}	49
	%	11.7%	3.4%	9.9%	9.5%
Student governance	<i>N</i>	17 _a	3 _a	5 _a	25
	%	5.5%	2.5%	5.5%	4.8%
Other	<i>N</i>	19 _a	19 _b	7 _{a, b}	45
	%	6.2%	16.1%	7.7%	8.7%
Total		308	118	91	517

Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$)

5.4.2.1.5 Race and cultural capital

In the case of academic capital, there were significant differences when race was cross tabulated with both school type ($\chi^2 (4, N = 750) = 186.08, p < .01$) and type of university attended ($\chi^2 (4, N = 822) = 480.10, p < .01$) (see Table 5.27 & 5.28 below). Black respondents were significantly more likely to have attended ordinary schools (65.8%, $N = 269$) and a lower status university, i.e. University of Technology (84.9%, $N = 395$) ($p < .05$). At the same time coloured respondents had largely attended either ordinary (44.0%, $N = 99$) or former model C schools (48.4%, $N = 109$) and were similarly spread between the University of Technology (47.1%, $N = 107$) and the Traditional University Medium (49.8%, $N = 113$). Finally, white respondents had predominantly attended former model C (57.4%, $N = 66$) and private schools (40.9%, $N = 47$) and the majority attended Traditional University High (59.2%, $N = 130$) (Tables 5.27 and 5.28 below).

Table 5.27

Cross-tabulation: Self-identified Race and Type of School Attended, N = 750

		Black	Coloured	White	Total
Ordinary	Count	269 _a	99 _b	2 _c	370
	%	65.6%	44.0%	1.7%	49.3%
Former Model C	Count	101 _a	109 _b	66 _b	276
	%	24.6%	48.4%	57.4%	36.8%
Private	Count	40 _a	17 _a	47 _b	104
	%	9.8%	7.6%	40.9%	13.9%
Total	Count	410	225	115	750

Note. Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$)

Table 5.28

Cross-tabulation: *Self-identified Race and the Type of University Attended*, $N = 681$

		Black	Coloured	White	Total
University of Technology	Count	395 _a	107 _b	25 _c	527
	%	84.9%	47.1%	19.2%	64.1%
Traditional University Medium	Count	61 _a	113 _b	28 _a	202
	%	13.1%	49.8%	21.5%	24.6%
Traditional University High	Count	9 _a	7 _a	77 _b	93
	%	1.9%	3.1%	59.2%	11.3%
Total		465	227	130	822

Note. Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$).

The number of familial examples with a National Diploma or higher qualification in their immediate family differed significantly by race ($F(2, 808) = 34.58, p < .01$). White respondents ($M = 2.29, SD = 1.07, N = 130$) had significantly ($p < .05$) more examples than black respondents ($M = 1.47, SD = 1.07, N = 454$) who in-turn had significantly more examples than coloured respondents ($M = 1.17, SD = 1.05, N = 227$) (Levine's statistic $F(2, 808) = 13.43, p < .01$; Tamhane's post-hoc test).

The trend was similar when examining only the number of parental examples with HE experience with white respondents ($M = 1.03, SD = .72, N = 130$) reporting a significantly higher number of parental examples than both their black ($M = .45, SD = .72, N = 465$) and coloured ($M = .41, SD = .70, N = 227$) counterparts, who in turn did not differ significantly from one another (Overall ANOVA result: $F(2, 819) = 35.44, p < .01$; Levine's statistic $F(2, 819) = 7.47, p < .01$; Tamhane's post-hoc test) ($p < .05$).

Table 5.29

Cross-Tabulation: *Self-identified Race and Mother's Education*, $N = 822$

		Black	Coloured	White	Total
Unknown	Count	61 _a	9 _b	2 _b	72
	%	13.1%	4.0%	1.5%	8.8%
Lower than National Diploma	Count	295 _a	175 _b	71 _a	541
	%	63.4%	77.1%	54.6%	65.8%
National Diploma or Higher	Count	109 _a	43 _a	57 _b	209
	%	23.4%	18.9%	43.8%	25.4%
Total		465	227	130	822

Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$)

There was a medium size correlation ($r_{ho} (822) = .31, p < .01$) between the students' self-identified race and their mothers' education indicating that the percentage of white respondents in the sample whose mothers held a National Diploma or higher qualification was more than twice that of black and coloured respondent's ($\chi^2 (4, N = 822) = 52.87; p < .01$) (see Table 5.29 above).

Table 5.30

Cross-Tabulation: Self-identified Race and Father's Education, N = 822

		Black	Coloured	White	Total
Unknown	Count	141 _a	15 _b	5 _b	161
	%	30.3%	6.6%	3.8%	19.6%
Lower than National Diploma	Count	226 _a	160 _b	48 _a	434
	%	48.6%	70.5%	36.9%	52.8%
National Diploma or higher	Count	98 _a	52 _a	77 _b	227
	%	21.1%	22.9%	59.2%	27.6%
Total		465	227	130	822

Note. Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$)

There was a small correlation ($r_s(822) = .16, p < .01$) between race and fathers' education. The percentage of white respondents with fathers who possessed a National Diploma or higher qualification was more than twice that of black and coloured students whose fathers had attained the same level of education ($\chi^2(4, N = 822) = 140.61; p < .01$) (see Table 5.30 above).

Table 5.31

Cross-Tabulation: Self-identified Race and Home Language, N = 822

		Black	Coloured	White	Total
English	Count	18 _a	149 _b	46 _c	213
	%	4.9%	66.2%	38.0%	29.9%
Afrikaans	Count	2 _a	73 _b	75 _c	150
	%	0.5%	32.4%	62.0%	21.1%
Xhosa	Count	346 _a	3 _b	0 _b	349
	%	94.5%	1.3%	0.0%	49.0%
Total		366	225	121	712

Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$).

Linguistic capital also correlated with race. Table 5.31 above illustrates that race and home language ($\chi^2(4, N = 712) = 879.77; p < .01$) followed expected patterns i.e. most black respondents (94.5%, $N = 346$) spoke Xhosa; whilst coloured and white respondents predominantly spoke English or Afrikaans.

Finally, race correlated positively with perceived spoken English competency ($r_s(872) = .16, p < .01$) with an ANOVA ($F(2, 816) = 5.38, p < .01$) indicating significant differences between groups. Levine's statistic $F(2, 819) = 3.93, p > .05$ indicated equality of variances with the result that Tamhane's post-hoc test was applied which indicated that black respondents ($M = 4.65, SD = .87, N = 465$) perceived their spoken English competency significantly lower than for both coloured ($M = 4.85, SD = .80, N = 227$) and white ($M = 4.98, SD = .91, N = 130$) respondents.

5.4.2.2 Gender and identity capital

Overall gender correlated poorly with the various forms of identity capital (see Table 5.9). Only three correlations were significant, though weak. These were in relation to source of funding, academic performance and perceived numeracy, respectively. The respective results are described below.

5.4.2.2.1 *Gender and financial capital*

A larger number of female respondents made use of NSFAS funding (53.3%, $N = 273$) ($\chi^2(1, N = 722) = 3.89$; $p < .05$), whereas own funds, parents or family funding was the dominant form of funding among male respondents (54.8%, $N = 115$). This suggested that female respondents were more likely to come from more disadvantaged backgrounds. This was, however, was not evidenced in LSM's as the number of male and female students in different LSM groups did not deviate from expectations ($\chi^2(3, N = 871) = .74$; $p = .86$).

5.4.2.2.2 *Gender and human capital*

Female respondents ($M = 63.55\%$, $SD = 9.82\%$, $N = 408$) showed a significantly higher academic performance than their male counterparts ($M = 60.70\%$, $SD = 10.45\%$, $N = 191$) ($t(597) = 3.24$, $p < .01$). At the same time, male respondents ($M = 4.46$, $SD = .95$, $N = 259$) rated their numeracy skills significantly higher than their female counterparts ($M = 4.31$, $SD = .94$, $N = 612$), although the effect size was small and not necessarily meaningful ($t(869) = -2.15$, $p < .05$).

5.4.2.3 *Conclusion: Race, gender and identity capital*

Race generally correlated significantly with the different forms of identity capital. Respondents who self-identified as black had significantly higher agentic personality scores than those who self-identified as either coloured or white. Access to financial capital also followed racial lines with white respondents better-off overall than their coloured counterparts who were in-turn better off than black respondents. Human capital proxies followed similar patterns when considering the type of qualification registered for, having participated in experiential learning, work-experience and special talents or skills. The opposite pattern was observed with regards to the self-assessed proxies, namely self-confidence, computer skills and numeracy skills, in that black respondents generally rated their competencies higher than either their coloured or white counterparts.

The pattern for social capital was slightly different in that white respondents having participated in significantly more extracurricular activities, followed by black respondents, and coloured respondents who participated in the smallest number of extracurricular activities on average. There were some variances in the types of activities members of different racial groups participated in, with black respondents least likely to have been a tutor or research/laboratory assistant and most likely to be involved in religious activities. There was no correlation between race and academic performance measured as academic course marks.

Cultural capital also followed racial lines, both with regards to academic capital where white respondents were more likely to have attended better quality schools and more prestigious HEIs and have had more parental examples with a National Diploma or higher qualification than coloured and black respondents respectively. Linguistic capital correlated with race in that white and English respondents were more likely to speak English and black respondents Xhosa. Although perceived written English competency did not correlate with race, perceived spoken English competency followed racial lines with white respondents tending to rate themselves higher than coloured or black respondents.

On the other hand, there were very few significant correlations between gender and identity capital with those that emerged being weak and not necessarily meaningful. It was, however, notable that female respondents performed somewhat better academically than their male counterparts overall.

5.4.3 Proposition 3: Experiential learning Supervisors' ratings of identity capital correlate positively with student self-ratings

Table 5.32

Spearman's Rank Correlation Coefficients: Employer Perceptions of Students' Identity Capital with Student's Self-assessment of Their Identity Capital, N = 94

ER	Student respondent self-assessment													ER		
	SE	WE	CL	SC	SE	PIL	LOC	SA	IC	ES	AP	APe	SP	LTE		
SE	<i>Cor</i>	.17	.22*												.48**	.39**
WE	<i>Cor</i>	.05	.11												.44**	.43**
CL	<i>Cor</i>			.14											.43**	.46**
SC	<i>Cor</i>				-.09										.54**	.47**
SE	<i>Cor</i>					-.07									.36**	.40**
PIL	<i>Cor</i>						-.05								.52**	.36**
LOC	<i>Cor</i>							.00							.54**	.54**
SA	<i>Cor</i>								-.06						.52**	.63**
IC	<i>Cor</i>									.21*					.47**	.43**
ES	<i>Cor</i>										-.06				.42**	.43**
AP	<i>Cor</i>											-.03			.54**	.42**
Know	<i>Cor</i>												.04		.54**	.47**
TS	<i>Cor</i>														.54**	.60**
UWOW	<i>Cor</i>														.57**	.56**
SP	<i>Cor</i>	-.04	.07	-.07	-.07	-.08	.08	.03	-.02	.02	-.01	.02	.09			.74**
LTE	<i>Cor</i>	.05	-.07	.07	-.02	-.18	-.12	-.04	-.31**	-.01	-.18	-.18	.12			

Note. **. Correlation is significant at the 0.01 level (2-tailed), *. Correlation is significant at the 0.05 level (2-tailed) Irrelevant correlations, i.e. those not related to the hypotheses examined in the study, were not reported.

ER = Employer Ratings, WE = Written English, SE = Spoken English, CL = Computer literacy, SC = Self-confidence, SE = Self-esteem, PIL = Purpose-in-life, LOC = Locus of control, SA = Self-actualisation, IC = Ideological Commitment, ES = Ego strength, AP = Agentic personality, APe = Academic performance, Per = Performance, SP = Satisfaction with performance, Know = Knowledge, TS = Technical skills, UWOW = Understanding world-of-work, LTE = Likelihood to employ

The correlations between the experiential learning supervisors' ratings and students' self-reported identity capital were examined, together with their likelihood to employ these individuals. In almost all instances, the supervisors' ratings of their experiential learning students' identity capital did not correlate significantly with the student respondent self-ratings. Despite the fact that supervisors tended to rate the students' written and spoken English similarly ($r_s(94) = .72, p < .01$), there was only a moderate correlation between the employers' ratings of experiential learning respondents' spoken English and the student respondents' ratings of written English ($r_s(94) = .22, p < .05$). The only other significant correlation ($r_s(94) = .21, p < .05$) was between student and supervisor ratings of the proxies for ideological commitment (see Table 5.32 above).

'Satisfaction with performance' (SWP) and 'likelihood to employ' (LTE), the two broad indicators of employability, did not correlate significantly with the student respondents' self-ratings, except in the cases of ideological commitment which had a medium negative correlation with the probability to employ the student ($r_s(80) = -.31, p < .01$). It thus appeared that students who expressed their beliefs and values were less attractive to employers. Notably, academic performance, an objective measure of human capital, did not correlate significantly with either SWP ($r_s(84) = .09, p = .21$) or LTE ($r_s(80) = .12, p = .15$). The opposite was true for the Supervisors' ratings of their student respondent's identity capital, which all correlated at medium strength and positively with SWP and LTE.

5.4.4 Proposition 4: Identity capital correlates with graduate employment

The main proposition was that different forms of identity capital would correlate positively with both the probability of obtaining graduate employment and the quality thereof. First, the correlations among the different quality indicators were examined, followed by how the different sources of identity capital correlated with both the probability of obtaining employment (Section 5.4.4.1) and the quality of this employment (Section 5.4.4.2).

5.4.4.1 Proposition 4.1: Identity capital correlates positively with employment

A binary logistic regression was conducted to ascertain the effects of the different forms of identity capital on the likelihood of being employed. The logistic regression model was statistically significant, $\chi^2(27) = 82.86, p < .001$ and provided a good fit ($\chi^2(8) = 5.53, p = .70$, Hosmer and Lemeshow test) It explained 35.3% (Nagelkerke R^2) of the variance in employment and correctly classified 81.9% of the cases i.e. high sensitivity and low specificity. The model did not work as well for identifying unemployed respondents in that it only identified 35.8% ($N = 24$) of the 67 unemployed individuals correctly (see Table 5.33 below).

Table 5.33

Binary Logistic Regression Classification Table, N = 315

Observed		Predicted		Percentage Correct
		Unemployed	Working	
What Doing	Unemployed	24	47	33.8
	Working	15	229	93.9
Overall Percentage				80.3

a. The cut value is .500

Individually, a number of the identity capital variables relating to social and cultural capital as well as race included in the model correlated significantly with the probability of being employed (see Table 5.34 below).

Table 5.34

Variables in the Equation, N = 315

		<i>B</i>	<i>S.E.</i>	<i>Wald</i>	<i>Df</i>	<i>Sig.</i>	<i>Exp(B)</i>
		Financial Capital					
Step 1 ^a	LSM	-.17	.22	.624	1	.43	.84
	Funding – NSFAS			4.39	3	.22	
	Bursary/scholarship	-.566	.519	1.19	1	.28	.57
	Own funds	.264	.690	.15	1	.70	1.30
	Parents/family	-3.243	2.353	1.90	1	.17	.04
		Human Capital					
	Qualification – National Diploma			.32	3	.96	
	Degree	-20.40	6472.36	.00	1	1.00	.00
	Batchelor of Technology	-20.94	6472.36	.00	1	1.00	.00
	Postgraduate Diploma	-20.06	6472.36	.00	1	1.00	.00
	Work experience	-.21	.20	1.03	1	.31	.81
	Talents	-.00	.25	.00	1	1.00	1.00
		Social capital					
	Extracurricular act.	-.62	.29	4.61	1	.03	.54
	Type - None			2.59	6	.86	
	Tutor/research assistant	-.43	.98	.20	1	.66	.65
	Religious groups	.15	1.04	.02	1	.89	1.16
	Sports teams	.10	.98	.01	1	.92	1.10
	Arts/cultural org.	-.50	.98	.26	1	.61	.61
	Student governance	-.46	1.07	.19	1	.67	.63
	Other	-.76	1.19	.41	1	.52	.47

Table 5.34 (continued)

Cultural capital						
School – Ordinary			5.01	2	.08	
Former Model C	-1.00	.61	2.71	1	.10	.37
Private	-.16	.66	.06	1	.81	.86
University of Technology			3.34	2	.19	
Traditional University Medium	3.32	3.45	.92	1	.34	27.53
Traditional University High	3.12	1.81	2.99	1	.08	22.70
Parental education	-.074	.234	.099	1	.754	.929
Language - Xhosa	.28	.21	1.77	1	.18	1.32
Afrikaans			5.06	2	.08	
English	-1.00	.61	2.71	1	.10	.37
Spoken English	-.16	.66	.06	1	.81	.86
Intangible capital						
Agentic personality	.015	.349	.002	1	.965	1.015
Race and gender						
Gender	-.41	.38	1.14	1	.29	.67
Race - Black			15.91	2	.00	
Coloured	-4.69	1.78	6.92	1	.01	.01
White	-2.08	1.72	1.47	1	.23	.13
Constant						
Constant	23.30	6472.36	.000	1	1.00	13187594267

Note. a. Variable(s) entered on step 1: LSM, Funding, School type, Type of University, Course, Work experience, Talents, Extracurricular activities, Type extracurricular activities, Parental education, Language, Spoken English, Agentic personality, Gender, Race.

The two factors that correlated significantly with the probability of being employed were self-identified race and social capital. The proxy for social capital, namely the number of extracurricular activities participated in, correlated negatively with the probability of being employed ($p < .05$). With regards to self-identified race, Table 5.35 below presents a cross tabulation of the interaction between race and employment, illustrating that black respondents were significantly less likely to be employed than coloured or white respondents ($\chi^2 (2, N = 315) = 34.26, p < .001$).

Table 5.35

Cross Tabulation: Self-identified Race and Employment, N = 244

		Unemployed	Working	Total
Black	Count	63 _a	122 _b	185
	%	34.1%	65.9%	100.0%
Coloured	Count	6 _a	74 _b	80
	%	7.5%	92.5%	100.0%
White	Count	2 _a	48 _b	50
	%	4.0%	96.0%	100.0%
Total	Count	71	244	315
	%	22.5%	77.5%	100.0%

Note. Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$).

In the case of cultural capital there were a number of marginally significant correlations. Academic capital in the form of school type and type of university attended correlated marginally with the

probability of being employed. A Chi-squared test of independence ($\chi^2 (2, N = 315) = 16.66, p < .001$) illustrated that graduates who had attended former Model C and private schools were significantly more likely to be employed than their colleagues who had attended ordinary schools (see Table 5.36 below).

Table 5.36

Cross Tabulation: School Type and Employment, N = 244

		Unemployed	Working	Total
Ordinary	Count	52 _a	112 _b	164
	%	31.7%	68.3%	100.0%
Former Model C	Count	14 _a	89 _b	103
	%	13.6%	86.4%	100.0%
Private	Count	5 _a	43 _b	48
	%	10.4%	89.6%	100.0%
Total	Count	167	71	244
	%	100.0%	22.5%	77.5%

Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$).

Equally so, the type of university correlated marginally significantly with the probability of gaining employment. Graduates who attended Traditional University High were marginally more likely to be employed than those who attended Traditional University Medium or the University of Technology ($p = .08$). A Chi-squared test of independence ($\chi^2 (2, N = 315) = 5.45, p = .06$) was also marginally significant with the associated cross-tabulation illustrated in Table 5.37 below.

Table 5.37

Cross Tabulation: University Attended and Employment, N = 244

		Unemployed	Working	Total
University of Technology	Count	57 _a	167 _a	224
	%	25.4%	74.6%	100.0%
Traditional University Medium	Count	11 _a	44 _a	55
	%	20.0%	80.0%	100.0%
Traditional University High	Count	3 _a	33 _b	36
	%	8.3%	91.7%	100.0%
Total	Count	163	71	244
	%	100.0%	22.5%	77.5%

Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$).

The correlations between linguistic capital, in the form of home language, with the probability of gaining employment was also marginally significant with English ($p = .08$) and Afrikaans ($p = .10$) speaking graduates moderately significantly more likely to be employed than Xhosa speaking graduates, as illustrated in the cross-tabulation in Table 5.38 below ($\chi^2 (2, N = 315) = 17.64, p < .001$).

Table 5.38

Cross Tabulation: Language and Employment, N = 244

		Unemployed	Working	Total
Xhosa	Count	50 _a	112 _b	162
	%	30.9%	69.1%	100.0%
Afrikaans	Count	2 _a	50 _b	52
	%	3.8%	96.2%	100.0%
English	Count	19 _a	82 _a	101
	%	18.8%	81.2%	100.0%
Total	Count	163	71	244
	%	100.0%	22.5%	77.5%

Subscript letters denote categories whose column proportions do not differ significantly ($p < .05$)

The proposition that the ICMGE would predict the probability of gaining employment was supported with race and the different forms of cultural capital. However, human and financial capital did not correlate significantly with the probability of the graduates gaining employment, whereas the proxy used for social capital, number of extracurricular activities participated in, correlated negatively with the probability of being employed. This fact that social capital, as measured by the number of social activities correlated negatively with employment, indicated that this proxy perhaps indicated distractions from obtaining employment, as opposed to the number of valuable employment related connections available to the respondent.

5.4.4.2 Proposition 4.2: Different indicators of graduate employment quality correlate positively

Table 5.39

Spearman's Rank Correlation Coefficients: Employment Quality Indicators

	Time gain employment	No. of Interviews	Work satisfaction	Work related to studies	Salary
Number of Interviews	.07				
<i>N</i>	183				
Job satisfaction	.05	.02			
<i>N</i>	233	188			
Relatedness of job to studies	.03	.12	.46**		
<i>N</i>	234	189	242		
Salary	-.03	.16*	.17*	.14*	
<i>N</i>	215	164	212	213	
Work hours per week	.06	.12	-.03	-.04	.36**
<i>N</i>	235	190	240	241	212

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

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

Although the time to gain employment did not correlate significantly with the other quality of employment indicators, respondents who had attended more job interviews tended to earn more ($r_s(164) = .16, p < .05$). There was also a medium size correlation between salary and hours worked per week ($r_s(212) = .36, p < .01$).

Those who earned higher salaries tended to be more satisfied with their employment ($r_s(212) = .17, p < .05$), however a stronger correlation emerged between satisfaction with employment and the degree to which graduates felt the nature of their job was related to their studies ($r_s(242) = .46, p < .01$). Salary also correlated with relatedness to studies ($r_s(213) = .14, p < .05$) (see Table 5.39 above).

The factors that logically measured quality of employment, namely salary, relatedness of employment to qualification and satisfaction with employment correlated with one another and were thus regarded as indicators of the quality of employment. However, time to gain employment and the number of interviews undergone before gaining employment, though important to the graduate employment process, were not necessarily quality indicator per se as they did not correlate with the other measures.

5.4.4.2.1 *Proposition 4.3: Identity capital correlates positively with the quality of employment*

The different indicators relating to graduate employment, namely time to gain employment, number of interviews prior to gaining employment, average hours worked per week, and the degree to which studies prepared the graduate for employment were examined to determine whether they could be predicted by the ICMGE.

Three indices were then combined, namely satisfaction with employment, the degree to which employment was related to qualifications, and salary, as an overall indication of the quality of employment obtained. These factors were selected given that they were theoretically related to quality of employment and their measures correlated significantly with one another (see Table 5.38 above). The new quality of employment variable was calculated by standardising salary into a 6-point scale based of the SDs from the mean, whilst the six-point scales for satisfaction with employment and relatedness to studies were maintained, the means of which were then calculated by dividing the total score by three (see Section 5.3.3.1.5.7).

The different employment quality indicators were examined using SEM with maximum likelihood estimation. It allowed for the examination of the correlation of the different identity capital proxies with each proxy used to measure the different forms of identity capital. The figures for model fit were identical as the same predictors were used in each model. The Chi-square test ($\chi^2(12, N = 315) = 28.60$,

$p < .005$) was significant indicating poor fit. However, this measure may have been affected by the large model size. This is especially relevant given that various indices measuring model fit, such as the normed fit index (.957), incremental fit index (.975), Tucker-Lewis coefficient (.90) and comparative fit index (.973) were all sufficiently close to one to indicate a good fit of model data overall.

The different types of identity capital included in the model generally covaried significantly, the exception being social capital which did not covary significantly in a number of instances (see Table 5.40 below).

Table 5.40

Covariances Between the Forms of Identity Capital in the Path Analysis Models

			Estimate	S.E.	C.R.	P
Human Capital	<=>	Financial Capital	3..07	.41	7.40	***
Human Capital	<=>	Social Capital	..28	.11	2.46	.01
Social Capital	<=>	Academic Capital	..34	.20	1.74	.08
Race	<=>	Agentic Personality	-.04	.01	-2.65	.01
Race	<=>	Academic Capital	1..34	.17	7.74	***
Social	<=>	Financial Capital	..05	.16	.32	.75
Academic Capital	<=>	Financial Capital	6..98	.77	9.12	***
Race	<=>	Social Capital	..07	.04	1.73	.08
Race	<=>	Financial Capital	1..47	.15	9.55	***
Social Capital	<=>	Linguistic Capital	..03	.10	.30	.76
Human Capital	<=>	Academic Capital	3..58	.50	7.22	***
Race	<=>	Human Capital	.84	.10	8.30	***
Human Capital	<=>	Linguistic Capital	1.13	.23	4.89	***
Academic Capital	<=>	Linguistic Capital	1.84	.40	4.57	***
Financial Capital	<=>	Linguistic Capital	2.83	.36	7.8	***
Race	<=>	Linguistic Capital	.81	.09	9.08	***

5.4.4.2.2 *Time to gain employment*

The SEM model predicted 8.3% of the variance in the time taken to gain employment with the significant predictors being financial, social and linguistic capital. The model is illustrated in Figure 5.6 below.

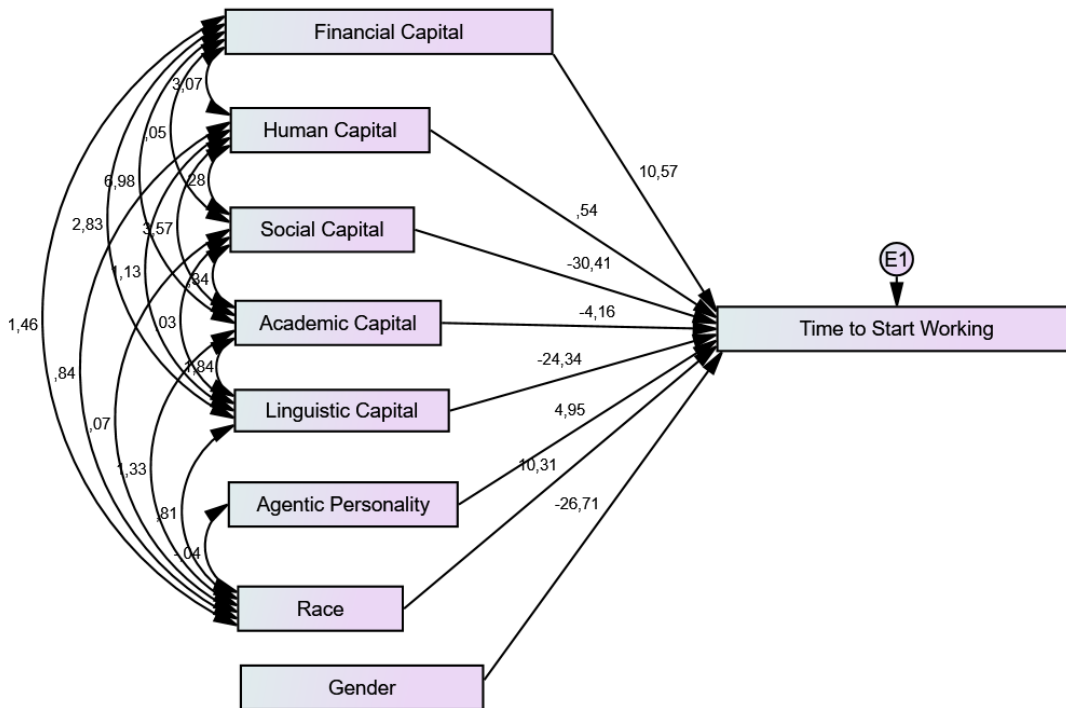


Figure 5.6. Path analysis: Time to gain employment, $N = 241$

Table 5.41 below outlines the regression weights indicating that financial, social and linguistic capital were the most important predictors of how long it took graduates to find employment. Those with more financial capital took slightly longer to gain employment indicating that more affluent graduates might have been able to afford to wait for the right position. Linguistic capital correlated negatively with the time taken to gain employment, with the implication that English and Afrikaans speakers took longer to find work. Here again, Xhosa speakers also tended to have less financial capital, so it is difficult to separate the effects here. Social capital, as measured by the number of extracurricular activities participated in by the student, also correlated negatively with the time to gain employment. The number of extracurricular activities participated in thus again rather indicated activities that possibly distracted the graduate as opposed to connections that facilitated employment.

Table 5.41

Model Regression Weights for Time to Gain Employment, $N = 244$

Time gain employment with	Estimate	S.E.	C.R.	P
Financial capital	10.58	5.09	2.08	.04
Human capital	.54	6.12	.09	.93
Social capital	-30.41	11.63	-2.61	.01
Academic capital	-4.16	3.71	-1.12	.26
Linguistic capital	-24.34	7.37	-3.30	***
Intangible capital	4.95	22.12	.22	.82
Gender	-26.71	22.91	-1.17	.24
Race	10.31	22.34	.46	.65

Note. *** $p < .001$

5.4.4.2.3 *Number of interviews*

The proposition that The ICMGE could predict the number of interviews undergone before obtaining employment was analysed using the composite measures of identity capital using SEM. This only predicted 3.4% of the variance in the number of interviews, however no predictor in the model correlated significantly with the number of interviews undergone (refer to Appendix K for the model and regression weights).

5.4.4.2.4 *Hours worked per week*

The SEM model using the different forms of identity capital to predict the number of hours worked per week only predicted 3.0% of the variance in the number of hours worked by the employed graduates, whilst none of the sources of identity capital were significant predictors either (see Appendix K for the model and regression weights).

5.4.4.2.5 *Studies prepared for employment*

The SEM model only predicted 3.3% of the variance in the scores indicating the degree to which the respondent felt that their qualification had prepared them for employment. Again, no individual predictor in the model correlated significantly with the degree to which the graduate's studies had prepared them for employment (see Appendix K for the model and regression weights).

5.4.4.4 *Quality of employment*

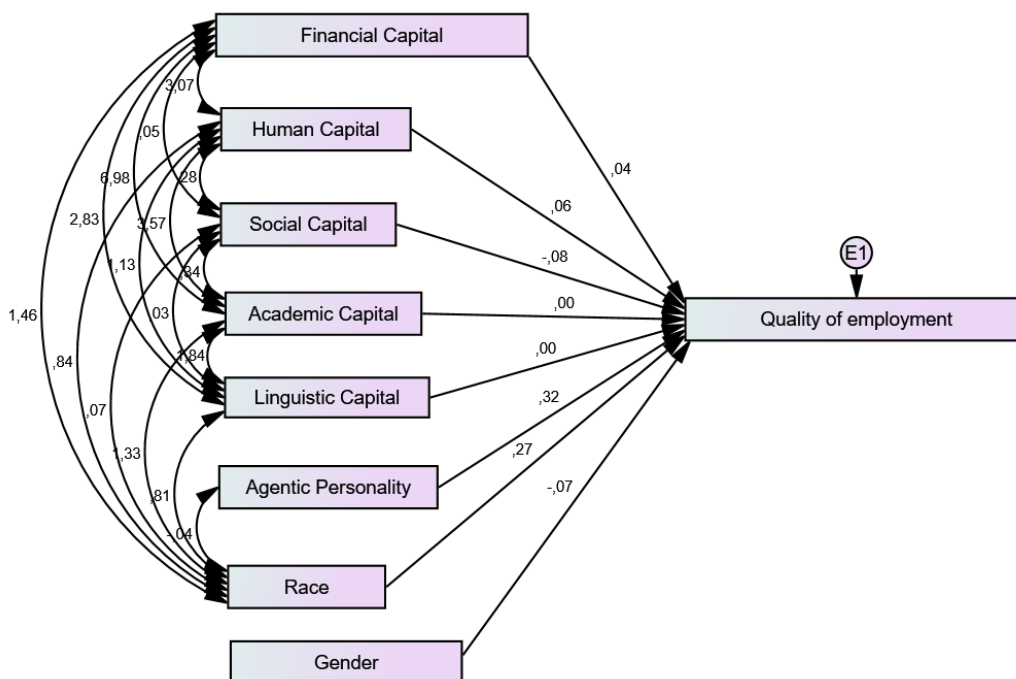


Figure 5.7. Path analysis for quality of employment, $N = 244$

The SEM model (see Figure 5.7 above) predicted 13.8% of the variance in the respondent's quality of employment, when quality of employment was made up of satisfaction with employment, the degree studies were seen as related to employment and salary.

Table 5.42

Model Regression Weights for Quality of Employment, N = 241

Quality of employment with	Estimate	S.E.	C.R.	P
Financial capital	.040	.031	1.282	.20
Human capital	.058	.037	1.547	.12
Social capital	-.084	.071	-1.183	.24
Academic capital	.004	.023	.192	.85
Linguistic capital	-.002	.045	-.040	.97
Agentic personality	.318	.135	2.350	.02
Gender	-.068	.140	-.486	.63
Race	.267	.137	1.953	.05

Note. *** $p < .001$

The regression weights presented in Table 5.42 above indicate that graduates' self-identified racial group ($p < .05$) and agentic personality ($p < .02$) were significant individual predictors of employment quality. Specifically, white and coloured graduates, as well as those with greater agentic personality resources had secured higher quality employment, the only instance where agentic personality predicted outcomes in the model.

5.5 Conclusion

Before running any analysis, the very small number of missing data was replaced with data using EM imputation. The six subscales used to measure Côté's (1997, n.d.) agentic personality construct were then examined for reliability. All achieved acceptable reliability as indicated by the Cronbach's α scores. When the reliability of the means for the six subscales was established, ideological commitment was excluded due to its low corrected item-total correlation. The factorial validity of the scales was confirmed with the means for the five subscales scales loading on a single component.

At the time of the follow-up just under half of the sample was employed. Unemployed individuals made up 13.2% ($N = 67$) of the follow-up sample and the remaining participants were still studying.

The study propositions were then examined. For most parts the results supported the assumption that different forms of identity capital would be related. For the different tangible sources of identity capital most correlations were small to medium size. The strongest correlations were observed between financial and human capital. Correlations between social and cultural capital with the other sources of intangible identity capital were small and insignificant in most instances

Agentic personality scores, which indicated students' levels of intangible identity capital, generally correlated weakly or non-significantly with the tangible sources of identity capital. Finally, whereas students' racial self-classification was related significantly to almost all the identity capital proxies, with white students tending to have greater identity capital than coloured students, who in turn had greater amounts than black students. However, there were generally no gender differences in identity capital levels.

The second proposition held that the perceptions of respondents' experiential learning supervisors would correlate with the corresponding student respondents' assessments of identity capital. This was not the case as no significant correlations emerged.

The central proposition was that different forms of identity capital would predict whether graduates would secure employment and the quality thereof. Through binary logistic regression it was possible to correctly classify 82% of respondents as employed or unemployed based on their identity capital, however the model was a lot more effective in identifying employed respondents. Financial capital in the form of LSM, social capital measured through the number of extracurricular activities participated in, and linguistics capital in the form of home language, were the most relevant individual predictors of securing employment.

Different quality indicators for employment correlated positively with one another in the case of salary, satisfaction with employment and the degree to which employment was related to graduates' studies. A 'quality of employment' value was thus generated by combining individuals' values on these indicators into a single score.

Path analyses indicated that time to gain employment was longer for graduates with greater financial capital i.e. those less in need could likely exercise greater agency in their choices. Those with less linguistic capital gained employment more quickly, however, Xhosa speakers were also more likely to come from poorer families, so the effect was difficult to separate. The number of interviews undergone, hours worked, and the degree to which studies had prepared the respondents, were not predicted by the ICMGE. Finally, the quality of employment indicator, made up by salary, satisfaction with employment and relatedness of employment to field of study, was predicted by the graduates' agentic personality score and racial group.

The proposed ICMGE was thus supported to some extent. Financial capital, measured by the LSM of the graduate's family of origin, and cultural capital, in the form of school type, correlated positively with the probability of the graduate being employed. On the other hand, social capital, in the form of

number of extracurricular activities participated in, correlated negatively with the probability of graduates being employed.

Identity capital resources also served to predict the quality of employment obtained in that their agentic personality scores (intangible identity capital) and race correlated with the probability of gaining quality employment. Graduates with greater agentic personality resources were more likely to be employed, whereas white and coloured graduates had a greater probability of obtaining employment than their black counterparts. It was notable that when examining the correlations between the different forms of identity capital, race and agentic personality correlated positively, with black respondents more likely to have greater agentic personality resources than their coloured or white counterparts. This indicated that race and agentic personality interacted independently in the model given that black graduates were less likely to obtain quality employment despite being more likely to have greater identity capital resources.

CHAPTER SIX

Discussion: Identity Capital and Graduate Employment

6.1 Introduction

The purpose of this study was to determine whether a graduate's access to various forms of identity capital could predict the probability of attaining employment and the quality thereof. To this end, the Identity Model of Graduate Employment was developed based on Côté and Levine's (1989, 1997, 2002, 2016) theoretical assumptions about identity capital and how it contributes to what Erikson (1950; 1968; Erikson & Erikson, 1997) referred to as ego identity development and Arnett (2000, 2007a, 2015) as emerging adulthood. A fundamental assumption of the ICMGE was that the different forms of identity capital are related to one another. Given the vast inequalities prevailing in SA society, it was also proposed that gender and race would correlate with the different forms of identity capital as well as with the probability of obtaining employment and its quality.

The data collected support the efficacy of the Identity Model of Graduate Employment in that it correctly distinguished between employed and unemployed respondents in more than 80% of cases. Cultural and social capital, as well as race, are the most relevant predictors of the probability of being employed. When predicting the quality of employment, agentic personality and race are important variables: Black graduates and those with low agentic personality have the greatest probability of being unemployed. Financial and linguistic capital predict how long it takes for graduates to gain employment with those with greater financial resources being able to wait longer and thus be more agentic in their choices, whilst Xhosa speakers, who generally are less affluent, tend to gain employment more quickly than their English or Afrikaans counterparts. The proposition that a greater source of identity capital in one area (e.g. financial capital) would support the acquisition of higher levels of identity capital in other areas (e.g. human capital) was supported as the different types of identity capital co-vary, except in the case of social capital. However, the results are not as clear when considering the individual proxies used to measure the different forms of identity capital. Whereas some are related (e.g. financial, human and cultural capital), others are not (e.g. agentic personality and social capital). Finally, as expected, graduates' self-identified race predicts the degree to which graduates possess various types of identity capital with black students having slightly higher scores

than coloured and white students, but contrary to expectation there are almost no differences in levels of identity capital between male and female students.

In the following sections, a review is provided of what the results mean for the efficacy of the ICMGE in predicting whether or not students gain employment post-graduation and its value in predicting the quality of employment obtained. Possible reasons for the specific associations found between the different forms of identity capital are then discussed. This is followed by a review of why race and gender may impact on graduates' access to the various forms of identity capital in the way that they do. The discussion of the model is concluded by examining the differences between the predictors of employment and the predictors of the quality of employment. The graduate employment rates found in this study are then compared to employment rates of SA graduates reported elsewhere. The implications of the study's findings for the theoretically developed ICMGE are then reviewed. The final sections provide recommendations for future research, limitations of the current study and a conclusion that outlines the contribution of this study to theory and practice.

6.2 The Identity Capital Model of Graduate Employment (ICMGE)

6.2.1 Identity capital as a predictor of employment

The primary questions that this study aimed to answer were whether access to different forms of identity capital among students at tertiary students could predict later employment and the quality of employment. Figure 6.1 shows the ICMGE as theoretically derived (see Chapter 3), and its adjusted form after considering the study's empirical findings (indicated by the variables presented in **bold font**).

The ICMGE, using all of the predictor variables, correctly distinguished between employed and unemployed respondents in 80% of instances; however, only about one third of the unemployed respondents were correctly identified as being unemployed. Those who had found employment appeared to take on Erikson's (1968; Erikson & Erikson, 1997) and Arnett's (2015) core task of becoming a productive member of society, which marks the entrance into adulthood and the end of adolescence or emerging adulthood.

It is important to bear in mind, however, that graduates are employed in a wide range of job types in a variety of sectors, which are more or less related to the graduate's qualification. In this section the predictors of employment per se are discussed, whereas the factors which predict the quality of employment are considered in Section 6.2.3.

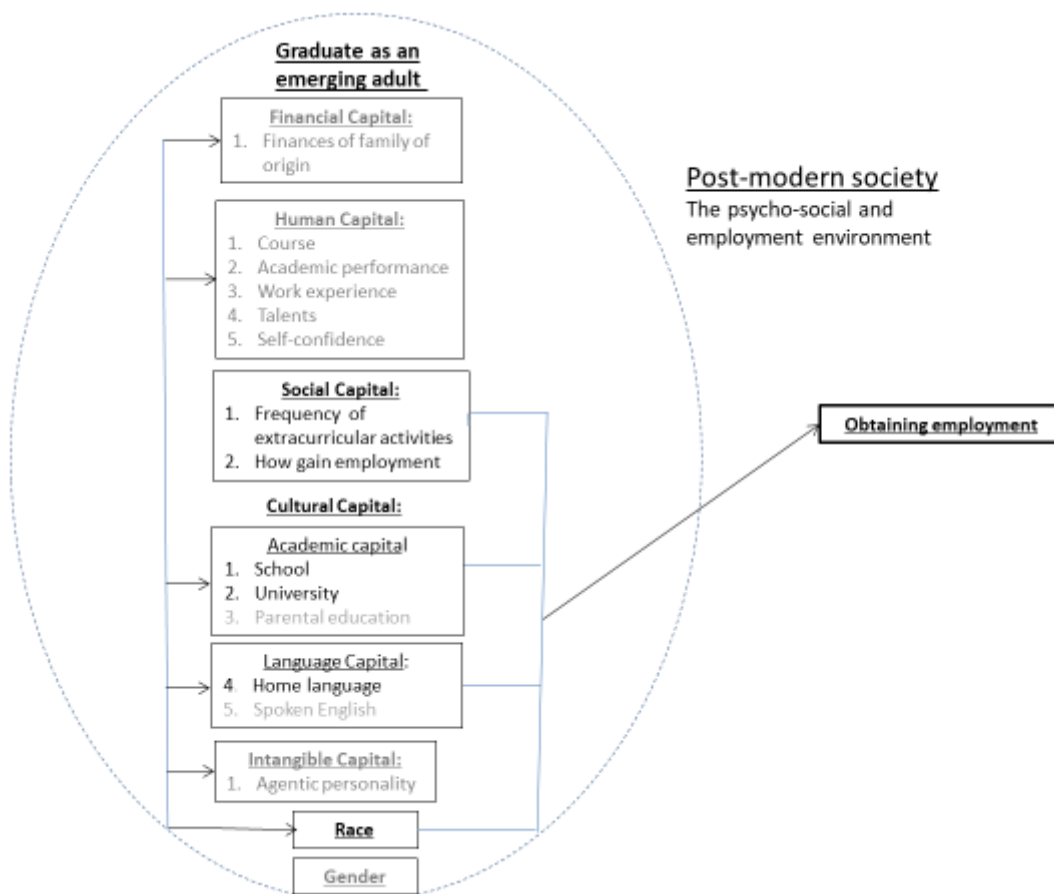


Figure 6.1. The ICMGE predicting graduate employment (*Significant predictors in black*)

The most relevant predictor of employment a year after graduating is the degree of cultural capital which graduates demonstrate as students in the form of linguistic and academic capital. Academic capital had been conceptualised in line with Bourdieu (1984, 2006) as the prestige and quality of the academic institution an individual had attended. Graduates who attended better quality schools and more prestigious HEI's are more likely to be employed as are those whose home language is English. The latter finding aligns with Cornwell and Inder (2008) who found that, in SA, English speakers were more likely to be employed. Being fluent in English is valuable given that it is the dominant language of business, politics and media in SA (Casale & Posel, 2011; Jiyane, Majanja, Mostert & Ocholla, 2013). Goldstein (2008) noted that all other forms of language in a society are judged against the dominant language, and consequently, those capable of understanding this language enter employment more easily. Those whose mother tongue is English are more likely to understand the rules of its usage in the employment context (Bourdieu, 1991). Being an English first language speaker also enables the graduate to convey what Erikson (1974) referred to as a common field of understanding of facts, experiences and interactions. On the other hand, the graduate's self-perceptions of their English competence did not influence their probability of being employed. It suggests that as expected

objective measures, namely the graduate's mother tongue, reflect linguistic capital more accurately than self-evaluations of language competency (see Section 6.5 below).

However, given that home language, type of school attended, and race are highly correlated in SA (Casale & Posel, 2011) the effects of all three variables are likely interrelated. Former Model C schools were generally whites-only schools before 1994 catering to Afrikaans and English-speaking children (Christie & McKinney, 2017), and are still often well-resourced and mostly fee-paying schools. Former Model C schools constitute less than 10% of schools in SA and the proportion of private schools is even lower (van der Berg, 2002), yet in HE pupils from these schools are considerably over-represented. This was reflected in this study as over half the respondents had attended private or former Model C schools. The findings showed that students from these schools have a greater probability of gaining employment, providing a distinct example of the persistence of profound historical inequalities (Christie & McKinney, 2017).

Not surprisingly then white graduates are more likely to be employed, despite the various legal initiatives instituted in SA such as the Employment Equity Act (Act 55 of 1998) aimed at improving employment for previously disadvantaged persons (Grogan, 2014). The fact that in this study black graduates were four times more likely to be unemployed than either white or coloured graduates is disquieting as it indicates that broader inequalities in SA society continue to be perpetuated. This aligns with Banerjee, Galiani, Levinsohn, McLaren and Woolard (2006) and Wilson's (2011) findings and dispels commonly held perceptions that it is harder for white and coloured graduates to find employment (Businessstech, 2016; Van Heerden, 2019; Weiss, 2019). It is also in line with the Commission for Employment Equity (CEE) (DOL, 2017) report that 23% of those recruited in SA at the skilled technical and academically qualified level in 2016/17 were white, even though white individuals only make up eight percent of the SA population. Coloured graduates in the study had a similar probability of being employed as white graduates. Again, this is not surprising given that the CEE (DOL, 2017) reported that 11.5% of those recruited in SA at the skilled technical and academically qualified level were coloured and 51% of all persons hired in the Western Cape were coloured (WCGPT, 2016), the province in which the study took place, and in which coloured individuals comprise 49.6% of the population (Stats SA, 2017).

In essence, even though racial demographics have changed in HE, pupils from the same schools that traditionally provided candidates for HE, i.e. white and (in the case of the institutions included in the study) English speaking individuals, are still the ones to do so. This speaks to Bourdieu and Passeron's (1977) notion of the institutionalised state of culture: More prestigious institutions provide graduates with higher value in the job market as they are thought to possess a particular cultural competency.

Whereas greater social capital, as indicated by the number of extracurricular activities participated in, was related to a lower chance of being employed a year post completion of studies, just under half of the employed graduates indicated having made use of social capital in sourcing their employment. This suggests that it might have been important to distinguish between the quantity and quality of social connections. Although the number of extracurricular activities engaged in may be a proxy for the size of someone's social network, it does not necessarily indicate social capital, i.e. the utility of the network in access to employment. What matters might thus be who the extracurricular activity gives access to, and how valuable this network is to finding work. If a student with limited relevant connections links up with other disempowered individuals in extracurricular activities, these activities likely have little or no impact on their probability of gaining employment. For example, participating in sports teams in a community in which levels of employment are low likely does not benefit the graduate's chances of making contacts that could facilitate employment. So in the SA context and other highly unequal societies at least, the number of extracurricular activities participated in is not necessarily an appropriate measure to assess social capital. This is particularly likely as contacts were found to matter in accessing employment.

There is one type of extracurricular activity, however, which increases the chances of employment. This is working as a tutor or laboratory assistant. Language and race played a role here, too. White and English and Afrikaans speaking individuals are more likely to work in this role. This means that not only does cultural capital assist in getting access to better tertiary institutions, but within those institutions it makes it more likely to access job roles which facilitate subsequent employment. This may be because the opportunity to engage in work-related, as opposed to other extracurricular activities, also assists in the development of work-relevant skills. However, it might also be that individuals with greater agentic personality are the ones who gain employment as a tutor or research assistant, and that it is due to their personality that would also be more driven in gaining employment after graduating.

A large proportion of graduates who had found employment through a social contact had used what Granovetter (1973, 1995) referred to as weak ties and Narayan and Cassidy (2001) as bridging social capital, that is, distant social connections. Approximately a quarter of employed graduates were referred by a person who was not a relation, whereas a lecturer or HEI had referred one in ten employed graduates. As only 6% of the graduates obtained employment through a family member these results run contrary to the notion that employment in SA society is driven by close-knit relationships or nepotism (Nzima & Duma, 2014; Sebola, 2009).

It is also notable that contrary to expectations graduates' parental qualifications, Bourdieu's (2006) embodied state of human capital, do not correlate with the probability of being employed. Parental qualifications had been believed to influence the graduates' attitude to education and employment (Bourdieu & Wacquant, 1992; Bourdieu, 2006). Given that students in this study were surveyed in their final year of tertiary studies and subsequently completed their studies, thus had already demonstrated sustained academic success, it is feasible to assume that graduates would have a favourable attitude towards education and employment, irrespective of their parents' education.

6.2.2 Identity capital as a predictor of employment quality indicators

The Identity Capital Model for Graduate Employment was useful in predicting the quality of employment and the time taken to gain employment. The model successfully predicted 14% of the variability in quality of employment scores and 8.3% of variability in the time taken to gain employment. However, different sources of identity capital were instrumental in predicting each of these indicators. However, the model did not predict the number of interviews graduates underwent before obtaining employment or hours worked when employed. Whilst the antecedents in the Identity Capital Model for Graduate Employment did not predict the number of interviews graduates underwent until becoming employed or the number of contracted working hours, they did predict graduates' quality of employment (i.e. better paid and more satisfying employment and employment that was more closely related to their studies) and the time taken to gain employment. However, different sources of identity capital were instrumental in predicting each of these two indicators as illustrated in Figures 6.2 and 6.3 below.

6.2.2.1 Identity capital as a predictor of employment quality

The results showed that those with greater agentic personality resources tend to attain employment of better quality. This means graduates who are more effective at self-regulation and driven to take control of their circumstances (Côté & Levine, 2002) have a higher chance at finding quality work. Based on Côté (1997, 2000), this is as these graduates possess greater psychosocial vitalities and capacities which provide them with the means to understand and navigate the various opportunities and obstacles encountered in finding employment.

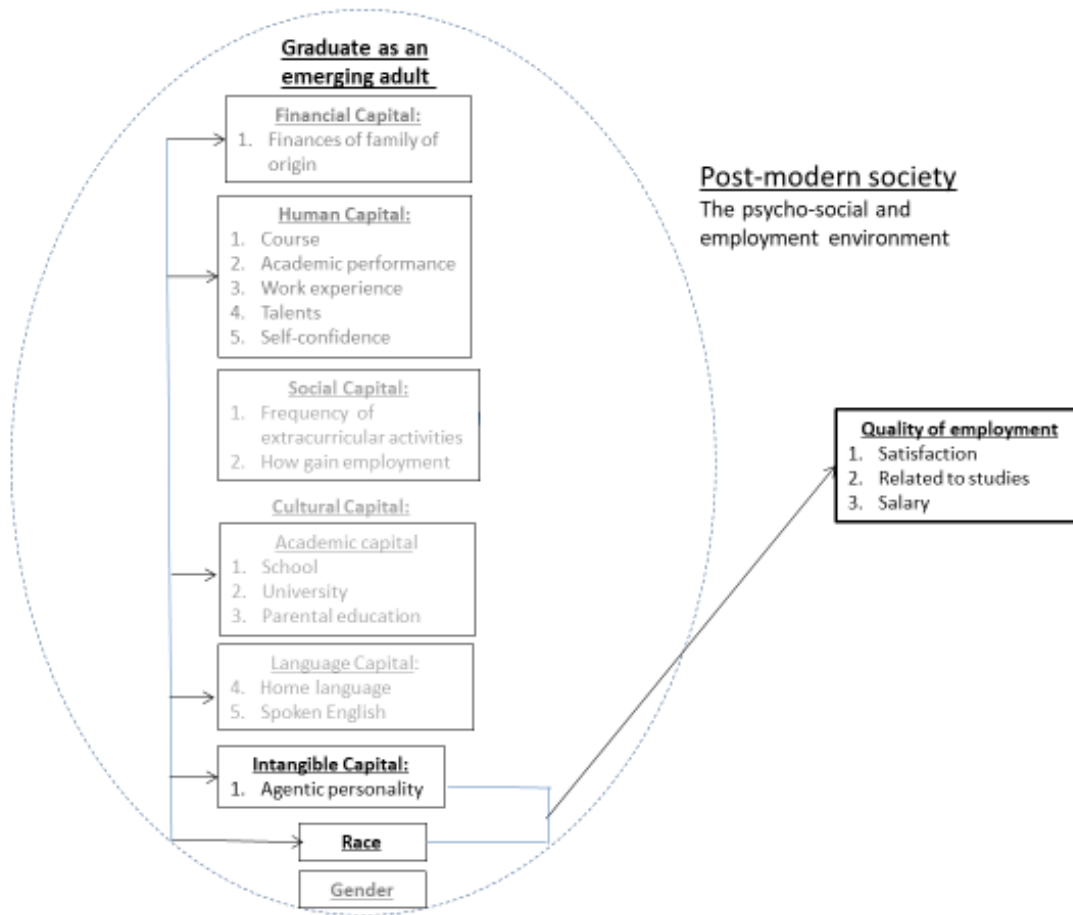


Figure 6.2. The ICMGE predicting quality of employment

Côté (1996, 2002, 2006) assumed that greater agency is associated with greater freedom and choice in resolving the developmental task of gaining employment (see Teschi and Derobert (2008) for empirical support of this assumption), and that those with greater identity resources take greater responsibility in evaluating their aims and desires.

These graduates have achieved a higher level of individualisation in that, as Wallace (in Côté & Schwartz, 2002) put it, they are more self-aware and able to choices from a complex and diverse range of options. They are, as Erikson (1950; 1968; Erikson & Erikson, 1997) put it, making active choices with regards to the actions they take in creating their life course. The freedom of choice is, however, also a function of the socio-historical context and the boundaries that it places on individuals (Elder & Kirkpatrick Johnson, 2002). This was evident in this study in the fact that race was found to be a predictor of the quality of employment graduates are able to secure: White graduates are not just more likely to obtain employment at all (see Section 6.2.1 above), but also the best quality employment, followed by coloured and black graduates.

The effects of race and agentic personality appear to be independent given that black graduates indicated higher agentic personality resources than white graduates, they are less likely to obtain higher quality employment.

6.2.2.2 Identity capital as a predictor of time to gain employment

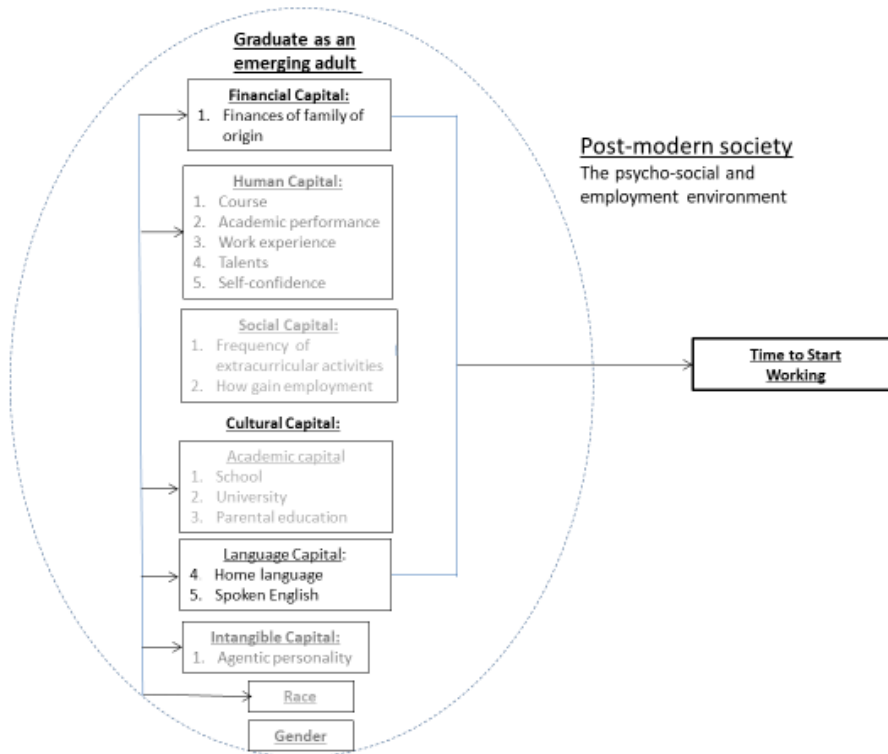


Figure 6.3. The ICMGE predicting the time to gain employment

The time graduates took to gain employment was predicted by their financial and linguistic capital. Those with less access to financial resources gain employment more quickly, possibly as a result of greater urgency to start generating an income. They may have less choice to be selective and more driven by the need to earn a salary. However, financial capital did not relate to the number of interviews undergone, meaning that those with greater financial capital take longer before taking up employment, but do not participate in more job interviews. This may indicate that those with greater financial capital are more selective in their choice of jobs applied for, and thus do not necessarily undergo more interviews.

Linguistic capital played a role in that graduates whose mother tongue was English or Afrikaans and who rated their spoken English abilities more positively, took longer to gain employment than Xhosa speakers. They are likely more attractive to recruiters as they can express themselves more effectively in English, the predominant language in the SA world of work.

The next section examines the findings related to the proposition that the different forms of identity capital in the ICMGE correlate with

6.3 Expected associations between different sources of identity capital

The underlying assumption of the ICMGE is that the various forms of identity capital support each other, in that greater capital in one area facilitates the acquisition of capital in another as postulated by Côté (1997, 2000) in his conceptualisation of the identity capital model.

The results supported this proposition in relation to the different forms of intangible identity capital which made up the agentic personality construct. A greater agentic personality was associated with greater tangible identity capital. The different forms of tangible identity capital were also related to each other. An exception formed social capital. Greater social capital was only related to greater human capital, but not to any of the other types of identity capital. As indicated in Section 6.2.1 this may be as social capital had been operationalised as the number of extracurricular activities a student participated in, which might not have indicated the relevant social capital (see also Section 6.7). The relationships between the different forms of identity capital are discussed in more detail in the following sections.

6.3.1 Do intangible and tangible forms of identity capital correlate?

The first research proposition was that the graduates' composite intangible capital resources, that is their agentic personality (Côté n.d, 1997, 2000), correlate with the different tangible sources of identity capital. The empirical results supported this assumption for some aspects of human and cultural capital and with regards to financial capital, though at times the nature of these relationships was contrary to expectations.

Those with more agentic personality resources tend to have access to less financial capital, implying that tertiary students with less financial resources develop more psychological capital. The same pattern emerged with some dimensions of cultural capital: Students from poorer quality schools and less prestigious universities tend to have higher levels of psychological capital. It is possible that those students who made it into tertiary institutions 'against the odds', i.e. despite being faced by lower financial resources may have been able to do so due to their particularly high levels of agentic personality. This is, agentic personality may serve as a buffer for the detrimental effects of limited tangible identity capital on educational outcomes – even though these individuals are then over-represented at lower quality tertiary institutions - and also in less valuable qualifications as indicated by the results. This might be an indication that, in most instances at least, it is not possible to draw on

psychological resources to compensate completely for restricted tangible capital. It is important to note, though, that psychological capital was not related to academic achievement. This may be as cognitive ability is a strong predictor of overall academic performance and more so than a student's degree of agency.

Among students at the University of Technology, at which a three-month long experiential learning placement forms part of the curriculum but is not always allocated, those with higher levels of psychological capital are more likely to be placed into such an opportunity. It is, however, also possible that it is the experiential learning placement which facilitates the acquisition of further psychological capital. As there was not association between psychological capital and the number of different work experiences a student had participated in it seems more likely that levels of agentic personality made the experiential learning placement possible rather than the learning experience increasing students' agentic personality capital.

Those with higher agentic personality tended to report greater computer literacy, numeracy and self-confidence, i.e. higher ratings in the self-rated measures of human capital. As would be expected agentic personality was most strongly related to self-rated self-confidence. It is possible that this result can be ascribed to common method variance (CMV) (Kline, 2005; Spector & Brannick, 2009) in that questionnaire self-assessments were used to measure both constructs.

6.3.2 Do the different dimensions of tangible identity capital correlate?

6.3.2.1 Financial capital and other dimensions of tangible identity capital

Graduates included in the study generally emanated from the more affluent sectors of society. Although the Living Standard Measure (LSM) 8-10 group, the wealthiest individuals, comprise 25% of SA society (Nielsen, 2016), 63% of the graduates in the study fell into this segment. On the other hand, the rural poor (LSM 1-4) constitute 22% of SA society (Nielsen, 2016), although only 3% of the graduates in the study were from this financial segment. This profile made sense given that the probability of individuals from lower LSM's completing secondary schooling is small and they are not in a position to afford HE. Werner (2014) reported that in 2011 only 23.6% of individuals in the LSM 1-4 category matriculated from high school and only 5.5% attended HE. Whereas the core role of HE in SA is to contribute towards societal transformation and reduce inequality and poverty (Mosia, in CHE 2016), it appears that HE still primarily serves the more affluent segments of society and thus perpetuating existing inequalities and failing to transform SA.

The assumption that financial capital provides a foundation for other forms of tangible capital was primarily supported by the data. Greater financial capital, for example, was linked with greater levels of human capital, indicated by the fact that individuals from more affluent families tended to be registered for more prestigious qualifications, attend higher rated HEIs and have acquired more special talents or skills. This is understandable as the acquisition of human capital comprises the acquisition of skills and capabilities (Coleman, 1988) that increase the income-earning capacity of the individual (Grootaert, & van Bastelaer, 2001) and which generally requires financial investments on the part of the individual (Becker, 1971/2017, 1976, 1993; Mincer, 1958, 1993; Schultz, 1960).us

The results also showed that the greater a graduate's financial capital the more valuable the qualification they are registered for. Students with less financial capital are more likely to study for a National Diploma qualification at the University of Technology, and students from more affluent background are more likely to attend traditional universities or private HE institutions. As with agentic personality, financial resources are not related to academic performance, however.

The number of unique talents or skills possessed by a student, however, was greater the more financial capital the student possessed. This is not surprising as individuals whose parents have greater financial means are likely exposed to a wider array of fields in which they could develop a special talent or skill, and once exposed, there is greater opportunity to make the development of a special talent or skill possible, for example, by attending a more resourced school which provides the opportunity to nurture their talents or skills. However, special talents or skills did not relate to the increased probability of employment which was possibly due to the fact that these were self-assessed as opposed to an objective measure. Greater financial capital also means more work experiences: Those graduates whose families of origin were more financially resourced had more opportunities to access temporary employment or experiential learning. With greater financial capital comes a larger number of relevant employment contacts. For example, if a student's mother is a manager, she most likely has more opportunities to access an experiential learning opportunity for her child than a low-income earner, like a cleaner, would have – due to being in a position of power and to being more likely to move in social circles in which work opportunities present themselves.

The associations between financial capital and the subjective measures of human capital, i.e. students' self-rated skills, were not as clear. The lower a student's financial resources, the higher they describe their numeracy skills and self-confidence. It is, however, questionable to what degree students were able to assess their human capital accurately, given that the perceptions of students' experiential learning supervisors did not match with students' self-assessments. Where possible, objective indicators of skills levels should thus be made use of.

Surprisingly, the two proxies for social capital, namely the number of extracurricular university activities participated in and the type of activity participated in, was unrelated to financial capital. This was surprising, given that it is believed that those with access to more financial capital are more likely to build significant social relationships and to possess higher levels of bonding social capital (Katz & Aspden, 1997; Putnam, 2000). Given that Bourdieu (2006) maintained that capital is unequally distributed in society, and reflects the structure of the social world, social capital would more likely have been enhanced through social interactions where they could interact with individuals not in the same developmental stage and with more extensive social connections. It is also likely that during late adolescence (Erikson, 1968, 1980; Erikson & Erikson, 1997) or emerging adulthood (Arnett, 2000, 2007a, 2015), it is the parents' contacts that matter more than their own.

Finally, as expected, greater financial capital went hand in hand with greater cultural capital. In the case of academic capital more affluent graduates likely acquire greater cultural capital as they are more likely to have attended better quality schools and more prestigious HEI's. In Bourdieu and Passeron's (1977) words, they attend institutions that provide them with a material advantage. Greater financial capital also means a greater likelihood of having parents who themselves have obtained tertiary education. This is understandable as HE is linked to higher incomes. Higher financial capital is also linked to a greater number of examples of HE qualifications among siblings, which provides students with access to individuals who understand the educational system (Shahidul *et al.*, 2015). These persons are able to guide students when entering into the HE system, as well as prepare them for, and guide them through the demands and rudiments of HE, thus increasing their chance of completion.

Linguistic capital, as a form of cultural capital, correlated positively with the students' financial capital. First language English speaking students have access to more considerable financial resources than Afrikaans or Xhosa speaking students. Graduates from wealthier families also rated their spoken English competency more positively, however, this is not the case for written English. The implication is that wealthier individuals are advantaged in the world given that they have greater English proficiency which is vital, given that the language of the world of work is predominantly English (Casale & Posel, 2011; Jiyane, et al., 2013), and that those with more financial capital would also tend to be more articulate.

6.3.2.2 Human capital and other dimensions of tangible identity capital

The objective proxies for human capital, namely type of qualification registered for, having participated in experiential learning and the number of different work experiences gained were

related to each other in that a higher level in one tends to imply a higher level in the others, too. This was not the case among the three objective indicators of human capital and the self-assessed proxies, namely computer literacy, numeracy and self-confidence. Students who rated their computer literacy highly tended to rate their numeracy and self-confidence highly, too, however. Unexpectedly, academic performance, as proxy of human capital, was not a relevant predictor of any form of capital. Academic performance did not correlate with the number of examples of work experience obtained whilst studying, a finding which is in line with research by Abraham, Richardson and Bond (2013) who found that part-time employment per se did not affect academic performance, but factors not measured in this study, such as the hours worked and motivation for employment, impacted on .

The fact that the different forms of human capital did not correlate consistently was not necessarily problematic. Human capital comprises tangible assets, in the form of knowledge or skills, that have financial value in the job market (Burton-Jones & Spender, 2011), and whilst the proxies measure assets that are related in that they have value for the individual, they do not necessarily correlate with one another. The efficacy of the self-assessed measures was doubtful given that the graduates' ability to judge their skills was questionable (see Section 6.6).

The sections above examined the relationships between financial, human and cultural capital, the correlations between social and cultural capital still need to be examined which takes place in the next section.

6.3.2.3 Cultural and social capital

The different proxies for cultural capital were generally correlated with one another: Those who attended former model C or private schools are more likely to have attended a prestigious HEI and to have parents and siblings with a tertiary qualification. This aligns to the finding presented in Section 6.3.2.1 that both are strongly associated with financial capital. Students with more qualified parents tend to be better off financially, which in turn could enable them to attend better quality schools and then more prestigious HEI's. Similarly, the greater the number of individuals with tertiary qualification in a student's family, the more valuable the qualification tends to be that the student is registered for.

As for the forms of identity capital covered in previous section, cultural capital was also not a predictor of academic performance. This was unexpected, especially with regards to the number of parental examples with HE in the student's family of origin. This is as it has frequently been reported that respondents from more educated families benefitted from positive examples and better guidance on study techniques (e.g. Bourdieu, 2006; Bourdieu & Wacquant, 1992; Jeynes, 2010, Wilder, 2014).

The only association between cultural capital and academic performance was that students, whose first language was English perform slightly better than students whose first language is Afrikaans or Xhosa. This is to be expected given that English is the language of instruction at most HEIs and many schools in SA (Bharuthram, 2012; Bush, Joubert, Kiggundu & van Rooyen, 2009; Casale & Posel, 2011) and that the link between English competency and academic performance had been found in previous studies (Stephen, Welman & Jordaan, 2004; van Rooy & Coetzee-Van Roy, 2015). The higher the value of the qualification a student is studying towards the more special talents or skills a student reported. Though they indicate greater confidence students studying for a National Diploma report fewer talents than students registered for degree courses.

With regards to linguistic capital, English and Afrikaans speakers are more likely to be registered for more prestigious courses such as a degree, Postgraduate Diploma or Bachelor of Technology, whereas Xhosa students are most likely to be registered for a National Diploma. Nonetheless, the only significant difference in terms of self-ascribed language capability was that Postgraduate Diploma respondents rated their spoken English more positively than National Diploma respondents. This may be because the majority of Postgraduate Diploma students' home language in the sample was English.

As for students with higher financial capital, students who have parents with tertiary education are also more likely to have gained a greater number of work experience. This is understandable given that HE level is linked to greater financial resources. There are a number of possible reasons for the link between educational background of a student's parents and the number of work experiences a student has obtained. Firstly, more educated parents may have created higher work expectations (Jeynes, 2007) or have greater social capital (Grenfell, 2009; Byun, Meece, Irvin & Hutchins, 2012) and thus in a better position to facilitate access to part-time employment for their children.

Similarly, first language English speakers, as well as those who rated their written and spoken English abilities more highly, were more likely to have gained undergone examples of general work experience whilst studying. Self-assessed written English was not relevant as a predictor of whether or not a student would gain access to an experiential learning placement. Here, only being an English home language speaker and rating one's spoken English highly make it more likely to obtain an experiential learning placement. It would thus appear that the experiential learning placement which is facilitated by the University of Technology counteracts the disadvantages experienced by students from less-educated families with regards to access to work experiences. Somewhat surprisingly, respondents with more educated parents tended to be slightly less self-confident, as did first language English speakers, perhaps an indication that self-confidence does not necessarily translate into tangible outcomes such as attaining employment.

Cultural capital also correlated with social capital in that University of Technology students participate in fewer extracurricular activities than students at either The Traditional University Medium or the Traditional University High. This means that they may be in a weaker position to develop their social capital. However, there is a relatively even spread between the three HEI groups in terms of the type of extracurricular activity participated in. University of Technology respondents are just less likely to be tutors/research assistants and thus possibly in a weaker position to develop strong relationships with lecturers, who could later facilitate employment prospects.

The qualification registered for also correlated with both the frequency and type of extracurricular activities. Those completing a degree participated in a significantly higher rate of extracurricular activities on average than their National Diploma counterparts and were more likely to have acted as research assistants or tutors and less likely to have engaged in sporting activities. Those completing a degree were from Traditional University Medium and Traditional University High which both have, in the experience of the researcher, more extensive tutorial programmes than the University of Technology which may have accounted for the differences here. This would also suggest the degree to which students have more significant opportunities to develop stronger social ties with their lecturers and other academics.

Given that SA is one of the least equal societies in the world, with a Gini Coefficient ranging between 0.66 and 0.70 with these largely skewed along racial lines as a legacy of apartheid (Bhorat, 2015) it was necessary to examine the impact of race and gender on the possession of identity capital resources.

6.3.3 Do race and gender predict identity capital?

6.3.3.1 Race and identity capital

Race is related to every form of tangible and intangible identity capital. The primary distinction was that whereas black students have a higher agentic personality, that is greater intangible identity capital, than students from other racial groups, they tend to have lower tangible identity capital. As outlined previously it may be that due to having lower access to tangible identity resources, on average, black students at HE institutions may have gained access to tertiary education despite constraints through greater degrees of what Côté and Levine (2002) refer to as self-regulation. By taking control over their circumstances they may be able to counteract the disadvantages that they face in terms of their tangible resources.

With regards to financial capital, the study reflected the societal trend in South Africa (Stats SA, 2017d). Black students are less financially well-off, coloured respondents more moneyed, and white students who also tended to be the wealthiest respondents in the study. The poorest respondents in the study (LSM 1-4) were all black, however the majority of black students were from LSM 5-7 (the middle class) and tended to rely on state (NSFAS) funding. At the same time, coloured respondents were reasonably likely to have fallen into the LSM 8-10 categories and to have relied on their parents or family for funding. Finally, the white respondents were much more affluent, falling almost exclusively into LSM 9-10 and relying on their parents or family for funding. The data in this study thus strongly supports Bhorat's (2015) contention that economic inequality still runs along racial lines and is still skewed according to pre-1994 endowments.

Race further correlated with human capital in the form of value of qualification registered for, the number of work experiences gained, number of talents or skills and self-confidence. More black graduates in the sample studied towards lower value qualifications such as the National Diploma which are less attractive on the job market, whereas white and coloured students were more likely to be registered for a Bachelor of Technology, Degree or Postgraduate Diploma, which again aligned with the national tendencies reported by Stats SA (2017b). University qualifications differ in terms of their status, costs and desirability. White individuals from families that are more financially advantaged, and in turn went to better quality schools were consequently more likely to have enrolled for qualifications with higher status. Although academic performance was not related to any of the other sources of identity capital, overall, black respondents had lower academic performance than coloured and white students.

Work experience, during or before studies, has long been seen as an essential form of human capital as it provides key competencies (Becker, 1971/2017, 1976, 1993; Mincer, 1958, 1993) and improves the probability of employment after graduation. Most employers require at least some form of experience. Here again, the findings showed that students from different racial groups differ in both, the chance to secure an experiential learning placement and the number of work experiences obtained. In the case of the University of Technology respondents, coloured and white students are more likely to participate in experiential learning than black students. Although approximately nine of every white and coloured student in the sample was placed, this was only true for approximately two-thirds of the black respondents. A similar pattern emerged when examining work experience in general, with black students having fewer work experiences, despite the extensive employment equity legislation in SA (Grogan, 2014). Half of the respondents who identified as black had no work experience at all. It would appear that race not only impacted on the probability of obtaining graduate

employment, but also on the likelihood of gaining experience through part-time employment, even at the University of Technology where experiential learning is an inherent part of the curricula. What the study results do not show, however, is whether students of different self-identified racial groups make equal attempts at securing part-time work opportunities whilst studying.

Students from different racial groups did not differ in their degree of social capital when it was considered as the number of extracurricular activities or method used to find employment. However, fewer black students had acted as a tutor or research/laboratory assistant, but a higher proportion of black students than white or coloured students participated in religious and sporting activities.

Finally, race correlated with both, academic and linguistic capital, as forms of cultural capital. In the case of academic capital, both, school type and university, mirrored the racial access in broader SA society to financial capital with black respondents more likely to have attended ordinary schools than former Model C and private schools and to be studying at the comparatively lower status University of Technology. Coloured respondents were equally likely to have attended an ordinary school or former Model C school and also likely to be studying at the University of Technology or the Traditional University Medium. White students, who were the most affluent, generally attended former Model C or private schools and Traditional University High.

The prestige of the institutions promises that holders of qualifications from these institutions possess cultural capital proportionate to their prestige (Bourdieu, 1984). The implication is that the study's findings reported in this and the previous sections indicate the continuous exacerbation of past inequalities. Black graduates were least likely to have had parents who possessed a National Diploma or higher qualification and thus least likely to have information about the workings of the HE system. As for linguistic capital, home language followed national trends with white and coloured respondents being predominantly English or Afrikaans speakers, whereas black respondents mostly spoke Xhosa. The first language English speakers, i.e. white and coloured students, rated their spoken English competency significantly better than black students who were predominantly second language English speakers.

It had been described earlier that students who had attended better quality schools or had parents with more financial capital reported a greater number of special skills or talents. As more black respondents attended lower quality schools and had, on average, lower financial capital, it is not surprising that black students also indicated fewer special talents or skills. The one source of human capital for which black students had higher levels was self-confidence, though self-confidence did not correlate with the probability of attaining employment.

The results of this study clearly portray the differences between racial groups in the different forms of identity capital. Black and coloured students at the HEIs included in this study have lower tangible identity capital with regards to financial, human and cultural capital than white students. There were two exceptions to this trend, namely the subjective measures of self-perceived numeracy and self-confidence. Black students also have higher levels of intangible identity capital (agentic personality).

6.3.3.2 Gender and identity capital

Despite the fact that women comprise 51% of the SA population (Stats SA, 2017c) they are under-represented in most aspects of SA commercial life. For example, they only comprising 44.8% of the national Economically Active Population (EAP) (DOL, 2017). It was thus proposed that female students have access to less identity capital than male students. However, this proposition was generally not supported by the empirical data. It appears that HE is an equaliser in that there are very few differences between male and female students in their identity capital. The main exception was that female students tend to perform better academically than male students which would seem to align with the fact that 52.5% of all registered students in 2016 were female, whilst 61.2% of graduates were female (StatsSA, 2017b). This may be as female students are more conscientious in their studies. Female students in this study were somewhat more likely to come from less affluent families, given that they relied more heavily on state funding (NSFAS) than male students.

Male students rated their numeracy skills higher than female students. It was not clear whether there was an actual difference given that these skills, or whether this reflected the commonly held stereotype that men are better at mathematics than women or that women tend to rate their skills as lower than men given that numeracy skills were not measured objectively (Flore, Mulder & Wicherts, 2018; Niederle & Vesterlund, 2010).

The proposition that access to identity capital differs systematically along racial and gender lines was thus generally supported for race but not for gender. Access to tangible sources of identity capital mostly followed racial lines. Black students had lower access to financial, human and cultural capital respectively, following broader societal patterns in SA. Although intangible identity capital, in the form of the students' agentic personality scores, did not correlate significantly with the intangible sources of capital, Black students had greater intangible identity capital resources. Black respondents tended to have access to less tangible resources overall, implying that they likely needed to develop their agentic personality resources to counter the disadvantages they experienced. However, it was also noteworthy that black respondents generally rated themselves more highly in self-reported scales which could also have accounted for these differences which were small and thus likely of little practical relevance.

6.3.4 Differences in predictors of employment vs quality of employment

Different antecedents included in the Identity Capital Model for Graduate Employment predicted the probability of graduates being employed, the time taken to gain employment and the quality of employment. Each source of identity capital predicted at least one of these three indicators of the quality of employment, except for human capital and gender.

The results of this study suggest that aspects of The Identity Capital Model for Graduate Employment assist in predicting different dimensions of employment, which are not necessarily related to one another. The key predictors of finding employment are the graduate's cultural capital in the form of type of school and university attended, as well as home language and race. However, it was clear that social capital matters as many graduates said they had found employment through contacts, and it was perhaps not necessary to measure social capital as it is implied in the indicators that were significant in the model. Psychological resources, i.e. the individual's agentic personality, were not relevant as an antecedent of whether or not a graduate finds employment. Yet, securing employment does not indicate if the job is related to the graduate's qualification and adequate in quality to their level of qualification. This study's results provided evidence of this as graduates obtained a wide range of jobs, many of which were not related to their qualifications. It shows the complexity of the employment context (de Grip et al., 2004). Assuming that employment signifies the transition from emerging adulthood into the responsibilities of adulthood (Arnett, 2000, 2007a, 2015) maybe oversimplifies the many facets that determine the employment context. Côté's (1997, 2000) had assumed that individuals with more agentic personalities are in a better position to resolve life challenges which is a critical aspect of Erikson's (1950, 1964, 1968; Erikson & Erikson, 1997) fifth developmental stage of identity versus identity confusion in which employment is a crucial task. Similarly, Arnett (2000, 2007a, 2015) emphasised the importance of employment in the individual transitioning from emerging adulthood into the responsibilities of adulthood. The fact that intangible sources of identity capital, i.e. the agentic personality, did not predict if graduates have obtained employment approximately a year after graduating, calls into question the relevance of Côté's (1997, 2000) agentic personality construct as an important variable in resolving the identity versus identity confusion challenge by accomplishing the developmental task of settling into a job.

To predict the time to gain employment financial and linguistic capital are the most relevant predictors. The findings suggest that graduates with little access to financial resources and those who are Xhosa speaking gain employment the quickest. This also likely prevents these individuals from accessing higher quality employment given that they have limited resources to spend on job searching for quality employment. Though not specifically investigated, there is also a distinct possibility that they

possess limited job search skills and would likely benefit from assistance from HEIs in developing these.

Whereas simply gaining employment and the time taken to do this are predominantly governed by tangible identity capital, psychological resources, i.e. the graduate's agentic personality, play a greater role in predicting the quality of employment obtained. Based on Côté's (1997, 2000) conceptualisation of the agentic personality construct it means that graduates with high agentic personality make conscious choices in negotiating the employment context in order to obtain employment that is better paid, more closely related to the qualification obtained, and that they are more satisfied with. Those who take an active role in evaluating their aims and desires are more likely to gain higher quality employment.

Although intangible identity capital, in the form of the graduates' agentic personality scores, did not correlate significantly with the probability of being employed, it did correlate with the probability of obtaining better quality of employment. This result raises the question of whether Côté's (1997, 2000) agentic personality construct is valid within the developmental trajectory and specifically with regards to employment. Individuals with more agentic personalities are hypothesised to be in a better position to resolve life challenges which is a critical aspect of Erikson's (1950, 1964, 1968; Erikson & Erikson, 1997) fifth developmental stage of identity versus identity confusion in which employment is a crucial task. Similarly, Arnett (2000, 2007a, 2015) emphasised the importance of employment in the individual transitioning from emerging adulthood into the responsibilities of adulthood.

Individuals who are more agentic, i.e. are able to make choices regarding the actions they take in creating their life course (Elder & Kirkpatrick Johnson, 2002), act to bring about change (Sen, 1999) and take responsibility in evaluating their aims and desires (Teschi & Derobert, 2008) are more likely to resolve the challenges of late adolescence/emerging adulthood, maybe not indicated by merely settling into employment, but by settling into quality employment. Those with greater agentic personality resources were more likely to have gained better quality employment i.e. that which was better paid, more closely related to their qualification and ultimately that they were more satisfied with. The agentic personality construct does appear valid in that it speaks to graduates who have made active choices and resolved challenges in gaining quality employment as opposed to just obtaining any employment.

The fact that human capital did not predict the probability of finding employment or the quality of employment was somewhat surprising. The type of qualification, i.e. whether a graduate had completed a National Diploma, degree, Bachelor of Technology or Postgraduate Diploma was

irrelevant to the probability of finding employment. That general work experience, and more notably, experiential learning did not correlate with the probability of employment is important as the experiential learning component is a significant selling point of University of Technology in SA as it is thought to improve graduate employability (Beck & Halim, 2008; Gazzard, 2011; Patrick, Peach & Pocknee, 2009). I had expected that graduates' who had been agentic in gaining work experience whilst studying would have been in a better position to obtain employment after graduating; however, this was not the case as agentic personality was only relevant for the quality of employment. The second key predictor of quality of employment was race: Black graduates from the HEIs included in this study are less likely to obtain high quality employment than white or coloured students. Those with less tangible resources are still at a disadvantage as they are less likely to find employment, regardless of grades as academic performance was not a relevant.

Although scores for academic performance were available for most of the initial student and follow-up samples, academic performance correlated poorly with other sources of identity capital. More notably, academic capital did not predict whether an individual would be employed a year after graduation or the quality of employment where obtained which speak well of the academic system. It was noteworthy that this remained the case when HEI was controlled for. This was quite surprising, given that the graduates' academic performance had been assumed a valuable source of human capital, and an indicator that employers would consider when making hiring decisions.

6.4 Graduate employment rates

Both Erikson (1950, 1964, 1968; Erikson & Erikson, 1997) and Arnett (2000, 2007a, 2015) emphasised attaining employment as a critical developmental task. Erikson (1968) argued that gaining employment is about the individual making a constructive contribution to society with only 5% of the unemployed graduates in the study not seeking employment. The majority of graduates aiming to gain employment were successful with 83% employed in the first year following the completion of their studies. Although 17% of the graduates were unemployed overall, the number was considerably lower for those with a university degree than for those with a National Diploma. Only 15% of those with degree were unemployed compared with over one quarter of those with National Diploma. These numbers look considerably better than the figure of 35.4% reported previously by ADCORP (2012) and 30% reported by Unitech (IOL News, 2006). Some caution should be exerted when interpreting these results, though, as selection bias may play a role: Not all students who had participated in the study could be reached at follow-up. It is possible that the ones whose phone numbers were no longer active or who could not be reached for other reasons were more likely to be unemployed than those who

could be contacted a year following graduation. The data does align with the overall employment rates in SA for the fourth quarter of 2016, however. Stats SA (2017a) reports an unemployment rate of 7% for all graduates and 15.8% for individual with a lower post-matric qualification, but those between 15 and 24 years, and thus the age group of the majority of graduates in this study, were less likely to be employed, irrespective of their education. At the end of 2017, 26% of all graduates and 42.8% of those with lesser tertiary qualifications were unemployed in this age group (Statistics South Africa, 2018).

The graduates in this study took an average of three months to gain employment. The time may have been negatively impacted upon by the #FeesMustFall⁴ protests that resulted in many graduates only completing their studies in January or February of 2016, whereas they ordinarily would have completed their studies in November or December of the previous year given that the SA academic year runs from January to December. These protests did not just disrupt the academic programme at the universities included in the study, but also created high levels of uncertainty and anxiety in the affected students (Davids & Waghid, 2016). This impacted on the students applying for employment as they had not written their final exams with uncertainty as to when, and if, this would happen.

In this study, the graduate employment prospects thus appeared less pessimistic than other research suggests. However, it needs to be considered that there were also graduates who had taken a much longer time to gain employment and a significant proportion of graduates were still unemployed at the end of 2016. The data suggests that graduates still aspire to traditional career paths. With 88% almost all graduates who had found employment worked in medium or large organisations in the private sector, mainly in the retail (24%), finance (16%), and marketing/advertising (10%) sectors. Only 6% of graduates in the study were employed in the public sector, which was relatively low given that government jobs comprise 17.5% of total employment in SA (Businesstech, 2016). However, this could be accounted for by the fact that the government had placed a moratorium on appointments in non-critical vacant posts from 1 April 2016 (SA News, 2016).

Graduates in the study were predominantly employed in entry-level positions such as clerical jobs, intern or graduate positions, customer service, marketing or sales. This was reflected in the mean salary of R7,324 (U.S. \$598) which was considerably lower than the median gross SA monthly income of R13, 378 (U.S. \$1,092) for those with a diploma and R21,527 (U.S. \$1,757) for graduates at that time (Businesstech, 2017).

⁴ Refer to the work of Davids and Waghid (2016) and Booysen (2016) for a detailed discussion of the events surrounding the #FeesMustFall movement.

Although graduates often reported that their employment was not directly related to their studies, they generally felt that their qualifications had prepared them for work and were satisfied with their employment in general. Although it is not clear how many of these positions will serve as 'gateway' positions for future careers that would eventually lead to graduate-level positions, it appears that a National Diploma or Degree is a 'ticket' that provides at least access to the job market.

Only 5% of graduates were employed by small, medium or micro enterprises (SMMEs), and a mere one percent self-employed, which is troubling considering SA's National Development Plan predicts that SMMEs will generate 90% of the 11 million new jobs aimed for by 2030 (National Planning Commission, 2012). HEIs are believed to play a critical role in the development of entrepreneurs (Amadi-Echendu, Phillips, Chodokufa & Visser, 2016; Nicolaidis, 2011; Radipere, 2012). Although Price (2018) found a robust entrepreneurial culture amongst the majority of SA students at a SA business school, study does not point to a robust entrepreneurial orientation among graduates. This was the case even for those who had completed a National Diploma in entrepreneurship, supporting the findings of Turner and Gianiodis (2018) that entrepreneurship curricula do not necessarily achieve their desired entrepreneurial outcomes.

Just more than one third of the graduates in the study were furthering their studies, with roughly three quarters of these doing so to improve their qualification or to improve their work prospects (6%), however only 2% were doing so because they had not been able to find work. The predominant motivator for further studies was the belief that education would provide economic benefits and would reward the personal and financial costs linked to it which aligns with the human capital perspective of Becker (1993) and Teixeira (2007). A similar picture emerged in the case of the respondents who were working and studying part-time as the majority (78%) did so to improve their qualification in order to improve their employment prospects. These findings support earlier studies (Bezuidenhout, 2011; Coetzee, 2012; Dacre Pool & Sewell, 2007; Glover et al., 2002) that graduates are motivated to study by economic instrumentality, expecting their qualifications to lead to better quality employment in their field/discipline.

Though gender does not predict the probability of graduates being employed (see Section 6.2 above), female graduates were somewhat less likely to be employed than male graduates, despite performing better academically. This finding aligns with the figures supplied by the CEE (DOL, 2017) that women comprised only 45.8% of persons recruited in SA in 2015 and 2016 at the skilled technical and academically qualified level, despite comprising 61% of all graduates in 2016 (Stats SA, 2017b). Importantly, whilst women held 45.6% of all posts at the professionally qualified level in SA in 2016, they only occupied 38.6% of these positions in the private sector (DOL, 2017), the sector in which the

majority of graduates in this study were employed. This would indicate that the private sector, whilst having transformed significantly with regards gender, still has a way to go.

Most unemployed graduates attributed their situation to factors outside of their control, such as universities not offering internships or employers requiring prior work experience. Only one third of the unemployed individuals alluded to an internal locus of control, such as needing to be more proactive in improving skills or networks. They did not refer to strategies which have been found successful in literature, such as seeking volunteering opportunities as a way to enhance human capital (Day & Devlin, 1998) and social capital, and demonstrating their value to the job market (Smith, 2010). Egerton and Mullan (2008) pointed out, however, that financial constraints can limit access to volunteering opportunities when these are poorly paid or unpaid, which may well have been the case here. It is also linked to cultural capital in that volunteerism may not be seen as a longer-term strategy for gaining employment.

The next section covers some notable additional results that were not directly related to the ICMGE.

6.6 Notable additional results

Given the large amount of data generated in the study covering a wide range of topics related to identity capital and accompanying employment, a number of notable additional results emerged. Although these did not relate directly to the central aim of the study, they add nuanced material to the domains of identity capital theory and SA graduate employment and have thus been included in this discussion.

The first result relates to Côté's (1997, 2000) agentic personality construct. Through studies conducted in Canada he had identified six psychological traits, self-esteem, purpose-in-life, internal locus of control, ego strength, self-actualisation and ideological commitment, which in combination formed the agentic personality construct. In this study, ideological commitment did not relate to the remaining five components and was thus omitted as a component of agentic personality. The measures of these components had to be adjusted substantially to work in the context of this study. The agentic personality construct in the SA context thus differs in terms of the psychological traits included and their operationalisation from Côté's (1997, 2000) original construct. This speaks to the importance of context-specific factors which should be considered before using the agentic personality measures.

Secondly, the study found that a large proportion of students used NSFAS state funding to finance their studies. In 2015 the maximum household income threshold allowing students to access NSFAS

funding was R122,000 (U.S. \$9,959) per month (Ndenze, 2018), with the consequence that only respondents from LSM 7 [average household income: R159,732 (U.S. \$13,039) per month and lower should have qualified. However, roughly a third of the participants from LSM 8-10 (average household income: R234,192 - R499,044) indicated that they made use of the state funding mechanism. It is possible that some of this is due to misclassification into a higher LSM group, but also plausible that students who do not qualify were gaining access to NSFAS. This is plausible as John and Nkosi (2015) demonstrated that the NSFAS system is vulnerable to theft and fraud. The DOHE conducted a forensic investigation into irregularities in the fund (Phakati, 2018). In this environment, LSM is thus likely a more adequate predictor of financial capital than students' source of funding.

In the third instance, students who had undergone an experiential learning placement were not more likely to find employment than those who did not, even if their supervisors had viewed their identity capital more positively, were satisfied with their performance and had indicated that they saw them as employable. The implications of this result for Universities of Technology in particular were discussed in Section 6.3.4.

Finally, the graduate's academic performance did not impact on either their probability of gaining employment or their perceived employability by experiential learning supervisors. One might expect that those who perform better academically in HE are likely to perform better in the world of work, this study's findings challenged this expectation. The graduate's academic performance correlated neither with other forms of human capital (see Section 6.3.2), nor the likelihood of being employed (see Section 6.2.1) or perceptions of employability. For the University of Technology students, academic performance did not relate to their experiential learning supervisors' satisfaction with their performance or intention to employ them. It would appear that academic performance in HE does not translate into advantages in the world of work.

Having discussed the overarching and additional findings of this research the discussion now moves on to reflecting on the study's limitations.

6.6 The findings' significance to the ICMGE

Before considering the key theoretical and practical contributions of the study findings for the Identity Capital of Graduate Employment, it firstly needs to be noted that none of the theorists who had presented models of graduate employability had incorporated psychological attributes (e.g. Bezuidenhout, 2011; Coetzee, 2008, 2014; Dacre Pool & Sewell, 2007; Hillage & Pollard, 1998; Fugate et al., 2004; Fugate & Kinicki, 2008; Knight & Yorke, 2003) nor had they tested their model against

actual employment obtained. By including the agentic personality construct and determining the study participants' actual employment status a year post what was meant to be students' final year of undergraduate study, this PhD thesis thus entered new grounds.

The central objective of this PhD thesis was to investigate the extent to which the ICMGE is able to predict graduate employment and the quality of work obtained. Table 6-1 below provides a summary of the main results.

Table 6.1

Summary of the Main Results of the Identity Capital Model of Graduate Employment (ICMGE)

Expected	Unexpected
<ul style="list-style-type: none"> The ICMGE predicts graduate employment 	<ul style="list-style-type: none"> ICMGE less effective in predicting unemployment than in predicting employment Only academic and linguistic cultural capital in combination with race predict employment. Social capital measure correlated negatively with employment Black graduates have higher probability of being unemployed
<ul style="list-style-type: none"> The ICMGE predicts the quality of graduate employment 	<ul style="list-style-type: none"> Only intangible capital (agentic personality) and race predict quality of employment.
<ul style="list-style-type: none"> A significant number of the graduates make use of their social networks to obtain employment 	<ul style="list-style-type: none"> The social capital measure correlates negatively with the chance of obtaining employment
<ul style="list-style-type: none"> The ICMGE predicts the time it takes to gain employment 	<ul style="list-style-type: none"> Only financial and linguistic capital predict the time to gain employment The ICMGE does not predict the number of hours worked or number of interviews undergone
<ul style="list-style-type: none"> Sources of identity capital generally correlate positively 	<ul style="list-style-type: none"> A number of the individual measures of identity capital correlate weakly or not at all. Agentic personality generally does not correlate with forms of tangible identity capital
<ul style="list-style-type: none"> Race correlates with sources of identity capital 	<ul style="list-style-type: none"> Black graduates have significantly higher levels of agentic personality resources Gender does not correlate with sources of identity capital

The findings of this study discussed in this chapter indicate that the ICMGE makes a significant contribution to theory and practice as it predicts graduate employment, the quality of employment and time taken to gain employment and shows that different forms of identity capital contribute to each of the different aspects of employment. In addition, the empirical data supports the assumption underlying the model, i.e. that the different forms of identity capital correlate with each other. These

associations, however, were found to be more complex than predicted by Côté (1996, 1997a, 2005, 2016). Finally, race, but not gender, is a significant predictor of all antecedents as well as the three outcome variables.

It cannot be stated with certainty that the ICMGE is superior to existing models of graduate employability until such time that they have been tested against actual employment. However, what is superior is that ICMGE was tested against actual graduate employment data. The implication for theory development in the field of graduate employability is that models and theories must be developed against tangible employment outcomes, especially given that employment outcomes are becoming ever more important in the SA and global HE context.

The findings that obtaining employment was dependent on tangible sources of identity capital, whereas the quality of this employment was dependent on intangible factors has significant implications. Not just obtaining employment but gaining access to HE is largely dependent on socio-economic factors and race, which are the responsibility of government. SA society, at least as relating to HE and employment, has not transformed as much as one as one would hope. The unfortunate reality is that, even with HE, those who are black and poor still have a higher probability of being unemployed, or when employed, being in poorer quality employment. On the other hand, those who are financially better off, are white, and more affluent and still have greater access to both HE and quality employment. It would thus appear that the presence of employment equity legislation in SA society is still justified. In fact, government would do well to examine the underlying factors and barriers that are hindering transformation both in the HE sector and society in general. However, HEIs would also do well in implementing strategies and practices to develop their students job search, work practice and interviewing skills, which could counteract some of the disadvantages associated with less access to intangible identity capital resources.

However, the fact that the quality of employment obtained by the graduate is reliant on their agentic personality has implications for practice for HEIs and their educators. This given that underlying constructs of agentic personality, especially self-esteem, purpose-in-life, internal LOC and self-actualisation can all be developed. HEI's would do well to consider including practices and strategies in their courses that would contribute to the development of their graduate's agentic personality attributes.

The following sections present the study's limitations in relation to the instrument and sample, recommendations for future research and the theoretical and practical contribution that the research makes.

6.7 Limitations of the study

The challenges related to the survey instrument and limitations of the samples from which the data was collected are discussed below.

6.7.1 Limitations of the survey instrument

The instrument used to survey the student respondents' identity capital demonstrated some challenges. It pointed to students' ability to self-assess their skills and abilities (human capital) and English language competency (cultural capital) given that these correlated poorly with the experiential learning supervisors' ratings. The self-assessed ratings also generally did not coincide with more objective measures, for example self-rated spoken and written English competency did not correlate with home language. As a consequence, a number of the self-rated measures of human and cultural capital were excluded when analysing the Identity Capital of Graduate Employment's ability to predict employment and the quality thereof.

A challenge regarding the scales used to measure financial capital, namely LSM and source of funding, was the limited variance in both scales which comprised four categories each. Although the shortened LSM scale reduced the number of items in the questionnaire, an undesirable consequence of this was the reduction of LSM categories from ten to four, which limited the degree of detail obtained.

Work experience, as a form of human capital, is believed to enhance employment prospects (Becker, 1971/2017, 1976, 1993; Mincer, 1958, 1993) with work-integrated learning (experiential learning) in particular believed to enhance graduate employment prospects (Jackson, 2013). However, neither of the measures correlated with the probability of graduate employment in this study. Work experience was measured recording the number of examples of part-time work experience that students had undergone whilst studying, as well as whether University of Technology students had attended experiential learning. Although experiential learning comprised a structured three-month qualification relevant work experience, in practice the nature and quality of individual experiences differed significantly. Anecdotal evidence, based on discussions with post-graduate students, suggested that numerous students undergo poorly structured work experiences. The implication is that the impact of the experiential learning experience is dependent on the quality and nature thereof. This is a significant finding to be considered by the University of Technology, as it provides an important point of intervention in order to improve its' offering.

Equally so, the type of work experiences gained whilst studying likely varied considerably, and the nature and duration of these experiences was not investigated. In order to gain more specific

information about the nature of these work experiences employment orientation could have been probed as it impacts on the value and outcomes of the work students obtain (Stijn, Marx, Neyt, Van Belle & Van Casteren, 2017; Wenz & Yu, 2010). It varies between addressing financial needs and gaining career-specific skills and experience,

A similar limitation was evidenced in relation to the human capital measure of special talents or skills. The self-reported number of these was recorded, but no information about the types of talents or skills students had identified was collected. Respondents identified a wide variety of talents and skills that varied from musical, dancing and art, to sport related skills. It is likely that some of these are more valuable than others to contribute to the graduate's employment.

Perhaps the greatest shortcoming of the instrument was the measure used to determine the graduate's access to social capital, namely the number of university extracurricular activities participated in. These were any activities which took place either at the university or in the student's community including participating in sports teams, religious groups, arts and cultural organisations, faculty or academic related activities and working as tutors or teaching assistants. These were believed to indicate the size of the social network available to students. However, a greater number of extracurricular activities participated in was related with a lower chance of finding employment. At the same time, almost half of the employed found this employment using some form of social capital. As discussed before, measuring the number of social networks available to the student respondent, represented by the number of extracurricular activities participated in, was likely not an indicator of social capital because many of these activities provide limited access to social networks which can facilitate access to employment (Letki, 2008; Portes & Vickstrom, 2011; Rothstein, 2015; Roscigno & Ainsworth-Darnell, 1999). Thus, whereas a student's extracurricular activities may very well reflect their social capital in some instances, it is necessary to examine the qualitative aspects of these activities in order to determine which of them have value to accessing employment.

Linguistic capital, as a dimension of cultural capital, was measured through home language together with self-perceived written and spoken English proficiency. Even though only about a quarter of the respondents were first language English speakers, all rated their written and spoken English competence as high, with the scores between English and non-English speakers not differing significantly. This contrasted with the researcher's experience whilst lecturing at both Traditional University Medium and the University of Technology where he did not experience either the written or spoken English capabilities of the students positively. It is likely that self-perceived English competence was assessed in relation to the respondent's reference groups. For example, those whose home language was not English, but were university students, may have regarded their competence

as being much higher than others in their immediate surroundings. The implication would be to consider the usage of more objective measures of English competency in future studies, such as marks for academic literacy subjects, in which English competency comprises a key component.

6.7.2 Limitations related to the study's samples

An inherent limitation in the use of convenience samples, like the ones used in this study, is that participation is opportunistic and voluntary, resulting in possible differences between the sample and the target population (Aldridge & Levine, 2001; Fink, 2003). The representativeness of the sample was not necessarily an issue as the central question in the study, i.e. how identity capital correlated with employment, could be examined given that the various forms of identity capital were fairly broadly distributed within a large pool of individuals ($N = 872$). The sample was fairly representative given that it reflected the population of in the Western the Cape in terms of racial distribution, LSM and other demographic indicators. This was also supported by the fact that, in the case of the University of Technology, the entire class cohort participated. However, the assumption is that those who came to lectures were not different to those who did not. Despite this, the sample was not large enough to examine if there were significant differences in employment between individuals holding different qualifications or if they differed with regards to the possession of different forms of identity capital. However, the findings in relation to the HEI attended may have been skewed by the fact that 60% of respondents were from the University of Technology and only 11% from Traditional University High. However, given that the sample was drawn from HEIs in the Western Cape (one of SA's nine provinces) the graduate employment data generated in the study, especially with regards employment rates, must be treated with circumspection and cannot necessarily be transferred to the broader SA context.

Employment data could only be obtained from 58% of the student respondents. It is possible that those who dropped out were atypical and consequently distorted the results of the study (Babbie, 2010, 2011). However, this threat was mitigated by the fact that the two samples were almost identical in the distribution of demographic characteristics and with similar means and distributions for the different forms of identity capital measured.

Finally, only a small sample of learning experience supervisors were contactable, constituting two thirds of the supervisors whose data had been provided by students. Consequently, the small sample size did not allow for substantial analysis of correlations given that fairly large correlations between supervisor perceptions and graduate employment would not be significant. However, this was not a key objective of the study and thus did not represent a significant shortcoming.

Given the shortcomings of the study discussed above, recommendations for future research are discussed below.

6.8 Recommendations for future research

The antecedents in the ICMGE effectively predict the probability of graduates' obtaining employment and the quality of such employment. However, the power of the model could be improved in future studies by addressing the shortcoming in the instruments identified above.

It is recommended that a more nuanced scale be used to measure financial capital which would allow for a more refined assessment of students' access to financial resources. Possible options include using the full 29 item LSM scale (SAARF, 2015a) that allows for the identification of 14 LSM groups (SAARF, 2015b) or the new socio-economic measurement (SEM) system that provides a score out of 100 and places the individual on the SEM continuum, which is divided into 10 SEM categories (BRC, 2018).

In order to effectively measure students' social capital in future studies, it is proposed that both, the structural and qualitative dimensions, of social networks be employed. One of the key challenges in measuring social capital is the large range of potential indicators (Field, 2008). There are a number of scales available that measure the dimensions of individual social capital with van der Gaag (2005) providing a useful overview of these.

Similarly, given that cultural capital is a complex concept with a number of dimensions future researchers should consider using a validated scale to measure this. A useful resource is the cultural capital scale in the German National Educational Panel Survey (NEPS), designed to measure students' objectified and embodied cultural capital as well as their reading culture (Goßmann, 2018). Pishghadam, Noghani and Zabihi (2011) have also developed a questionnaire that could be useful given that it assesses both social and cultural capital and includes subscales measuring social competence, social solidarity, literacy, cultural competence and extraversion.

The experiential learning experience requires further investigation given that whereas it is expected to contribute to student employability this study found that it did not improve the probability of being employed. The fact that the experiential learning employers' satisfaction with student performance or that their 'intention to employ' did not correlate with graduate employment also bears further investigation. Here the key factors that influence employment decisions could be investigated in greater depth. Future studies should consider using more detailed and nuanced measures as opposed

to the single item measures used in this study. These would provide greater degrees of variance in the results and provide more in-depth insights into the relevant factors being investigated.

It would be helpful to extend the work presented in this study to a larger number of HEIs in different provinces and to include postgraduate students to allow for a greater generalisation of graduate employment data to the SA HE context. The various HEIs, and the DOHE, would benefit from such a comprehensive graduate tracking system in SA that would provide an accurate picture of employment outcomes for graduates, and changes over time. Further, it would be advantageous to examine the implications of the use of the ICMGE in multicultural and transnational contexts and thus identify the international comparative implications of this research outcome.

The results in this study relating to the ICMGE have illustrated both the need to base graduate employability models on a solid foundation of theory and the developmental stage of the graduate. Future research on graduate employment and employability would also do well to incorporate developmental theory, such as the theory of Erikson (1950, 1964, 1968; Erikson & Erikson, 1997), Arnett (2000, 2007a, 2015) and Côté (1997, 2000), given that graduates find themselves at a unique stage within their life trajectory. Graduates are emerging adults in the process of finalising their ego identities which requires them to make unique life choices that enables them to discover their purpose in life and develop an identity that allows them to perform in the labour market.

A major shortcoming in the field of graduate employability research is that models of employability are seldom evaluated against tangible employment outcomes. This means that it is not possible to assess the validity of the employability construct as defined by many researchers in the field. It is critical that future employability research in general, and graduate employability research in particular, be conducted against tangible employment outcomes. Future studies on employability need to examine whether theoretical models of employability predict actual employment, as done in this study. Studies could also examine whether employment experiences, such as work-based learning or internships, enhance employability competencies or attributes, as done by Namutuwa (2020). Alternately, future studies could examine whether the development of skills or attributes related to a particular model contribute to employment related behaviours.

6.9 Conclusion

To date theoretical models have focussed on graduate employability i.e. their propensity to obtain employment based on possessing particular characteristic or traits and have often lacked a sound theoretical basis. The ICMGE has a solid theoretical foundation being based on the work of Erikson

(1950, 1964, 1968; Erikson & Erikson, 1997), Arnett (2000, 2007a, 2015) and Côté (1997, 2000). Perhaps the most important theoretical contribution is that the model provided a framework for predicting both graduate employment and the quality of that employment, as opposed to so-called 'employability' that is limited to students' employment potential. The ICMGE is different from previous models in that it used identity capital to predict graduate employment. It is also unique in that it incorporated the developmental phase of the graduate and sought to predict graduate employment despite the limitations of the psycho-social (employment) environment. It demonstrated that gaining employment is impacted upon by the tangible sources of identity capital possessed by the graduate, whilst the quality of this employment is reliant on agentic factors in that it is impacted upon by the graduate's intangible identity capital.

The ICMGE has made a distinct contribution to theory and practice by providing a unique and soundly grounded theoretical perspective that predicted factors contributing to graduate employment and the quality of this employment in the SA context. This was a complex task, a possible reason why no other theorist in the field had attempted to do this previously. The study further provided key understandings of how the factors contributing to SA graduate employment operate within the population, as well as graduate employment trends. Finally, an instrument was generated to measure agentic personality resources that was validated for SA graduate respondents that can be used for future research.

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Appendix A: A review of the work of key economists examining human capital theory

1. A brief summary of the work of Theodore W. Schultz

Theodore W. Schultz made the first systematic presentation of the human capital argument in his address as president in 1960 to the meeting of the American Economic Association (Lin, 2004). He rejected the classic notion that all labourers are endowed equally with the capability to do manual work that requires limited skill and knowledge. Instead, arguing that it was a grave error not to explicitly regard human resources as a manifestation of capital, as these are created through a production process and are a product of investment. He suggested that the effects of human capital be measured by the resultant increase in earnings (Schultz, 1960).

Schultz (1960) suggested that education is as an investment in man and that the consequences regarded as a form of capital. He called it 'human capital' as it becomes part of the person and thus cannot be separated from the person receiving it, and thus cannot be traded or treated as property as other forms of capital can be. However, it is still a form of capital as it provides a productive service that is of value to the economy (Schultz, 1960). He proposes that the development of human capital requires numerous resources from the individual comprising both the time and effort invested, together with the earnings sacrificed whilst studying. The individual is not the only party involved in the creation of human capital as government and private investors are also involved in the setting-up and management of educational institutions.

2. A brief summary of the work of Jacob Mincer

Jacob Mincer (1958, 1993) is one of the fathers of modern-day labour economics which attempts to explain the functioning and dynamics of the labour market (Grossbard, 2006; Polachek, 2006; Teixeira, 2007). He was particularly concerned with the paradox, identified by the Cambridge economist Arthur Pigou, that whilst abilities are typically normally distributed in society, the distribution of incomes is sharply skewed (Mincer, 1958). Mincer (1958, 1993). He concluded that there were extraneous variables that intervened in the relationship between intelligence/ability and income, which he referred to as human capital.

Mincer (1993) regarded human capital as acts of investment in the form of competences gained via both formal and informal education and training, as well as through work experience (Mincer, 1958, 1993). He notes that the central tenant of human-capital theory is that decisions relating to capital

acquisition contain both costs and benefits. The costs are related to the direct costs of acquiring the capabilities (tuition costs) as well as indirect costs in the form of earning forgone whilst undertaking training. The benefits are that the acquisition of human capital is an investment that should show increased returns in the future. Spending time in training is a rational choice as this comprises a deferment of earnings to a later age when these will equalise. Equalisation suggests that inter-occupational differences in income are a function of differences in the type and amount of training required (Mincer, 1958, 1993). Mincer (1958, 1993) further notes that human capital depreciates when the holder's health deteriorates and if the skills acquired become obsolete.

3. A brief summary of the work of Gary S. Becker

Becker (1971/2017, 1976, 1993) focussed on the consequences of investing in the knowledge and skills of the individual, postulating that this investment is comparable to a business investing in equipment. Becker's (1993, p.11) defines human capital as "...activities that influence future monetary and psychic income by increasing the resources in people". Becker (1971/2017, 1976, 1993) argues that human capital investments lead to increases in skills, knowledge or health, which lead to an increase in monetary or 'psychic incomes'. He used the term 'psychic incomes' to reflect an increase in the consumption of commodities, i.e. leading to a better standard of living. Investments in human capital generally increase age-earnings profiles with financial income lowered during the human capital investment period but raised later on. Becker (1993) argues that the most compelling evidence in this regards is that more is earned by well-educated and skilled persons than their less-skilled compatriots, although these gains are usually higher in less-developed countries where wages for unskilled labour are generally lower. Becker's (1971/2017, 1976, 1993) conceptualisation of human capital is similar to that of Schultz (1960) and Mincer (1958, 1993) however, the key value of his work is that the benefits thereof differ between diverse members of societies.

Becker (1971/2017, 1976, 1993) points out that there has been a critical assumption that human capital is equal. This conflicts with evident qualitative variances in types of education such as university, on-the-job training and informal learning which have differences in value in the market place. In the SA context, those with a degree have higher levels of employment than those with diplomas or other tertiary qualifications (van Broekhuizen & van der Berg, 2013).

Human capital is perceived to operate in a context where society is believed to comprise a perfectly working market governed by the forces of supply and demand where rational choice is persuasive (Becker in Fine, 2001). However, Becker (1971/2017, 1976, 1993) notes that all individuals do not have equal opportunities to benefit from the human capital they possess. He notes that intervening factors

such as discrimination and nepotism impacting on the availability of opportunities, whereas employee selection does not always take place according to objective standards with factors other than the individuals' human capital influencing choices.

Becker (1971/2017, 1976, 1993) notes that some children are advantaged as they are born into families with superior abilities, who place greater emphasis on learning and have other positive cultural and genetic qualities. Culture is encoded in the beliefs and practices of the family resulting in an accompanying positive impact on their values and behaviours (Becker, 1993; Becker & Tomes, 1986). He refers to this as the 'Elite' approach in that investment and earnings differ primarily based on differences in the ability of individuals to take advantage of their human capital investments. Becker (1971/2017, 1976, 1993) argued that the persons who are more able to take advantage of their human capital (through their cultural capital) form an elite segment of society.

The return on human capital is not exclusively dependent on the ability of the individual or the amount invested, but also on his or her level of motivation (psychological capital, but not referred to as such), or the nature of the job. He notes that economists have long been cognisant of the fact that established measures of ability, such as aptitude or intelligence scores, school marks, as well as personality profiles, do not consistently reflect the capacities required to succeed in the workplace. He alludes to psychological capital when stating that success in the workplace is related to "...particular kinds of personality, persistence, and intelligence" (Becker, 1993, p.97).

Becker (1971/2017, 1976, 1993) also notes that individuals do not necessarily follow the logical economic principle of maximising financial returns on their educational investments in that they may work less energetically or enter occupations with lower earnings, but which have higher 'psychic income'. Becker (1971/2017, 1976, 1993) does not clearly define his concept of 'psychic income'. However, the value lies in the fact that he identifies intangible returns beyond the financial such as psychic components or benefits of employment such as psychological well-being. He also includes the psychic benefits parents receive from their children's success causing the individual to either work harder to generate funds to facilitate this. Alternately, to engage in employment less demanding in order to engage more meaningfully with their children, and the psychological pleasure gained through the consumption of goods.

Becker (1971/2017, 1976, 1993) acknowledges the impact of other forms of capital arguing that individuals from higher-income families are likely to receive greater psychic benefits from human capital, develop more positive attitudes toward studying and HE, and gain greater psychic benefits from HE, essentially referring to what Bourdieu (1984, 2006) would later describe as cultural capital.

Appendix B: A review of the work of key theorists examining social capital

1. Coleman's social capital as a collective asset

James Coleman was the first theorist to systematically conceptualise social capital (Halpern, 2005; Ostrom & Ahn, 2009). Coleman (1990) identified three types of capital that are useful to an individual for specific actions. Human capital comprises the skills, knowledge and experience of the individual which determine his or her value in society. Physical capital, in the form of tangible private goods and social capital, which he viewed as any social structural features or resources found in family relations as well as in the social organisation of the community. Social and human capital are complementary in that an individual who has a particular skill set, knowledge and experiences, can enhance his or her social status and thus increase his or her social capital (Coleman, 1992).

Coleman (1998, 1990) regarded social capital as an intangible asset based on the social status of the individual social status in a particular social structure which enables individual actions within the structure. Social capital cannot be owned as it is located in the relationships between people in the social structure in which they are located, making particular actions possible by the individual acting within the social structure (Coleman, 1998, 1990). Through exchanging social capital in the form of favours, expectations and obligations are created which serve as "credit slips" (Coleman, 1990, p.308). A social environment thus needs to contain a degree of trustworthiness in order for the actors to believe that these obligations will be honoured. The acquisition of social capital is more challenging the procurement of human or physical capital. Investments in social capital are thus not necessarily an investment in the self, but rather an investment in the broader social structure which benefits all the participants in that structure (Coleman, 1990, 1992). Coleman (1988) notes both social relations and social structures facilitate different forms of social capital in that actors start relations with a purpose, which they carry on with as long as they continue to generate benefits.

The three forms of social capital identified by Coleman (1988), are (i) Obligations, expectations, and trustworthiness of structures which arise when an individual does something for someone else which he or she expects to be reciprocated in the future. The effectiveness of this 'credit slip' is dependent on (i) the trustworthiness of the social environment, as well as the actual extent to which obligations are held; (ii) Information providing the basis for action resulting in information channels in the form of social relations that are an essential form of social capital; and (iii) Social norms and accompanying

social sanctions are potent forms of social capital e.g. norms that discourage criminal behaviour or norms that encourage high achievement.

2. Putnam: Social capital and democracy

Robert Putnam adapted the ideas of James Coleman's ideas to understand the broader operation and interaction between social institutions (Castiglione, van Deth & Wolleb, 2010). Putnam (1993, p.15) defined social capital as "networks and norms of civic engagement" which create trust in a community, facilitate commerce, and the granting of credit allowing democracy to grow. Social capital is thus contained in social relations, whereas the access to and use of these resources resides within individual actors (Lin, 2004). Social capital exists beyond the individual in that it occurs between social structures and in the individual's involvement in societal structures (Esser, 2008). Putnam's (1993,2000) approach thus implies that the individual can be agentic in the development and acquisition of social capital. However, if individuals or groups of individuals are excluded from particular networks, they will struggle to enhance their levels of social capital and the accompanying access to employment.

Whilst Putnam (1993, 2000) and Coleman (1988) focussed on how social capital is generated, Pierre Bourdieu (2006) was more concerned with the inequalities created through social.

3. Pierre Bourdieu's theory of social practice

The French sociologist Pierre Bourdieu (1930–2002) was possibly the foremost sociologist of the late twentieth century making a substantial and continuous contribution to educational ideas in his writings on social practice (Grenfell, 2012; Murphy & Costa, 2016; Rawolle & Lingard, 2013). Murphy (2013) argues that Bourdieu's theory and empirical work comprises the essence of social theory as he builds methodological and analytical frameworks that are applied to explore and understand social phenomena. Bourdieu (2006) argued that in order to articulate a theory that thoroughly explains the functioning of an economic system an understanding must be developed of all the different forms of capital that operate therein, together with their consequential profits. The laws through which the different types of capital convert into one another must then be determined.

Bourdieu's theory of social practice, an understanding of which is as necessary to appreciate as his conceptualisations of capital, focus on the macro-level of society examining how power and domination act in the maintenance of social structures (Vaughan, 2009). Bourdieu (2006) equates social capital with power, signifying the practices through which individuals, who are members of the dominant class, strengthen and replicate their position in society (Lin, 2004). Bourdieu (1984, 1990) used the theoretical constructs of field, habitus and capital to explain this process.

3.1 Field and habitus as the context for Bourdieu's capital

Bourdieu uses the term field to denote social relations which are not automatically geographic or spatial (Rawolle & Lingard, 2013). Fields comprise sets of objective historical relations that exist between different positions fixed in place by particular forms of capital (Bourdieu & Wacquant, 1992). Field is a social space in which agents (individuals) and their social positions are located. The position of each is a consequence of the rules of the field, as well as the agent's habitus and capital (Bourdieu, 1984).

Social interactions are compared to a sports game where agents (individuals) compete, and are thus in conflict, over different forms of capital that drive action within the particular field (Bourdieu & Wacquant, 1992). It is a given that fields are competitive spaces, and all the actors do not have equal access to capital or the practices used to acquire that capital. The extent to which agents become invested depends on the individuals' path and his or her initial exposure to the workings of the field. A field has a number of properties, namely: (i) they are organised spaces where actors adopt particular positions; (ii) interactions within the field are guided by common laws, or reasoning processes, that also determine the type of stakes that these practices are aimed at; (iii) competition (social struggles) exist around these stakes and different forms of capital; (iv) it is a socialised body bestowed with a habitus which orientates the views of agents to the stakes resulting in the continuation of the status quo in that social field; (v) at any point time is structured according to a number of power relations; (vi) the power relations result in distinctive patterns of strategies adopted by the different agents in relation to their own position and course in the field; and (vii) the functioning is comparable to a game (Bourdieu, 1993). The field that is of particular importance from the perspective of this thesis is the employment context where individuals who differ from one another in their ability to access capital compete with one another for a limited number of positions.

Although a field is objective, in that it provides a structured context, it is experienced subjectively by the agents (individuals) located therein (Bourdieu, 1984). Bourdieu (1990, p.116) employs the concept of 'habitus' to denote the "systems of dispositions" linking agents and their practices. The concept of habitus derives from philosophical thought dating back to Aristotle, however Bourdieu employed habitus in an original manner (Rawolle & Lingard, 2013) He regarded it as the set of historical associations contained within individuals that comprise mental and physical schemes of perceptions, appreciation, and behaviour (Bourdieu & Wacquant, 1992). These schemes are learnt patterns of unconscious thoughts and perceptions/dispositions creating habitual patterns governing the interactions between agents (individuals) and institutions within the field and, in turn creating enduring patterns of thought, perception, and behaviour (Bourdieu, 1984; Mander, 1987). Habitus is

learned by individuals or groups through the internalisation of culture or social structures such as class, family, occupation and education which provide a set of practical skills enacted without thinking (Vaughan, 2009). Habitus is the foundation for understanding practices that have developed through collective experiences and histories, together with the accompanying subtleties and differences associated with these, within a particular field (Rawolle & Lingard, 2013). The implication is that individuals who are competing for employment vary in the degree to which they possess the skills, practices and dispositions that enhance their employability.

Bourdieu also uses his concept of *habitus* to explain how one group dominates other groups in a society on a socio-cultural level, with the beliefs and actions generated through it generating conformity in social action (Mander, 1987). Social class has no biological basis but instead comprises a system of objective determinations guided by a set of dispositions (Bourdieu, 1987). Habitus is generated through social learning in the family, of things such as morals, behavioural rules and tastes. At the same time, habitus explains intergenerational conflict as it implants dissimilar definitions of possibilities in life, as well as what is acceptable behaviour (Mander, 1987). It is through the agentic acquisition of various forms of capital that individuals can overcome various social boundaries and gain access to different spheres of society.

Bourdieu (1986, 2006) argues that capital has three basic forms, namely:

- (i) economic capital which can be directly and quickly transformed into money and could be entrenched in property rights;
- (ii) cultural capital such as educational qualifications, which can be transformed into economic capital under certain circumstances; and
- (iii) social capital comprising social obligations created through social connections, also convertible into economic capital under certain conditions and which may be entrenched through social positions and titles.

Whilst financial capital is relatively straight forward (see section 3.6.1.1), Bourdieu's (1984) conceptions of social and cultural capital are more complex. Bourdieu's (1984, 2006) theory is important in that it has culminated in an open framework of macro concepts enabling the analysis of the interaction between agency and structure in different contexts (Murphy & Costa, 2016). Individual agency and social arrangements which interact as agency freedoms are restricted by available social, political, and economic opportunities (Sen, 1999). One such context is the employability context where Bourdieu's (1984, 2006) theory would contribute to the understanding imposed by the individuals' context on his or her choice and agency in attaining employment.

Bourdieu (1984) further illustrates how the cultural practices of an individual can preserve or increase position in the system of class domination. Class is enacted in tastes for food and accompanying practices and is also enacted in the features of the individual's body in the "...way of treating it, caring for it, feeding it, maintaining it, which reveals the deepest dispositions of the habitus" (Bourdieu, 1984, p. 190). The dynamic interactions between habitus, field and capital are indispensable in explaining how structures of inequality are maintained or changed (Vaughan, 2009). This study focusses on graduates and consequently the HE context. A notable example of the impact of cultural practices is provided by Redmond (2006, p.119) who notes that despite the widening access to HE, those with a disadvantaged cultural habitus all too frequently become "outcasts on the inside".

Bourdieu's (1984) conceptualisation of habitus is a powerful tool to help understand the broader SA context within which this study takes place. Bourdieu's (1984) concept of symbolic violence is prevalent as South Africa is a country of divisions, where one social/ethnic group has dominated the other social groupings throughout its history. Although the formal system of domination (Apartheid) ended in 1994, this still perpetuates in many regards through social and economic domination, i.e. what Bourdieu refers to as 'cultural arbitrary' where many of the power relations that exist within SA society are not overtly observable to its actors. It is thus vital to include race in understanding the relative availability of different forms of capital and the accompanying agency of the individual.

Appendix C: Self-administered survey questionnaire (Study one)

Consent form



TITLE OF RESEARCH: Exploring the relationship of identity capital with employability

PURPOSE

Thank you for considering participating in the research study. I will use the data collected in this study in my PhD dissertation. The aim of the study is to identify factors that contribute to the employability of graduates.

(The cover letter to obtain informed consent was adapted for the different samples as follows):

CPUT respondents:

The study comprises four phases which I am requesting you to participate in by either providing information or by giving me permission to collect data about you. The phases are:

- (i) For you to complete a questionnaire today. This questionnaire examines various attributes that may contribute towards your employability;
- (ii) For me to access data from the CPUT system regarding your academic performance;
- (iii) For me to request your in-service manager to comment on how satisfied he/she is with attributes exhibited by yourself during your in-service period with the organisation; and
- (iv) For you to provide me with information about the type and nature of employment that you have obtained when I contact you approximately six months after completing your studies.

UCT, UWC, FEDISA & Red & Yellow School respondents:

The study comprises two phases which I am requesting you to participate in by providing me with information on two occasions. The phases are:

- (i) For you to complete a questionnaire today. This questionnaire examines various attributes that may contribute towards your employability;
- (ii) For me to access data from the your university system regarding your academic performance;
- (iii) To provide me with information about (a) your academic performance in your third year; and (b) the type and nature of employment that you have obtained when I contact you approximately six months after completing your studies.

All information will be kept strictly confidential and used for the purposes of this research only. You will be asked to provide some personal information about yourself today so that I can link each questionnaire response to the data collected in the other phases of this study. Once the data has been recorded all personal references will be removed so that it will not be possible to relate the findings back to you. My research assistants and I will be the only persons who deal with this and your individual information will not be revealed to anyone outside the study.

Please read through this consent form carefully and ask me for clarification if you are unsure about anything. If you sign the consent form, you thereby give permission for your help with my research. The completion of the questionnaires should take approximately 20-25 minutes of your time.

RISKS AND DISCOMFORTS

Should you feel uncomfortable answering any of the questions you are free not to answer these.

CONFIDENTIALITY

Due to the nature of the study you will need to provide the researchers with some form of identifiable information however, all responses will be confidential and used for the purposes of this research only.

PAYMENT FOR PARTICIPATION IN THIS RESEARCH

You will not receive any compensation for completing the questionnaire; however you will be given a chocolate on completion of the questionnaire as a small expression of gratitude for your time and effort.

QUESTIONS

If you have any questions about any aspect of your research participation you are invited to ask them now. If you have additional questions later or would like additional information about the study, please contact me (Mr Jerome Kiley) by calling 021 460 9016 or emailing kileyj@cput.ac.za.

CONSENT

This research has been approved by the Commerce Faculty Ethics in Research Committee of the University of Cape Town. By completing the questionnaires today you are consenting to participate in the study. This does not limit your right to withdraw at any stage as noted above.

Biographic Information



The information requested here is to enable me to complete the later phases of the research and will be kept completely confidential:

Name		Surname		Stud no.	
-------------	--	----------------	--	-----------------	--

Personal email:		Cell no.	
------------------------	--	-----------------	--

Home language		Age:		Gender:	Male/Female
----------------------	--	-------------	--	----------------	--------------------

High school:		Located:		Province:	
---------------------	--	-----------------	--	------------------	--

Course registered for:	
-------------------------------	--

I regard myself as:	Black	Coloured	Indian	White	Other	Prefer not to answer
----------------------------	-------	----------	--------	-------	-------	----------------------

How are you paying for your studies and other expenses while at university?

(Use 1 to indicate main source, 2 the 2nd; 3 the 3rd etc.)

My own funds (e.g. savings/inheritance etc.)	
Part-time employment	
Non-repayable contributions from parents/other family/partner.	
Repayable loan from parents/other family/partner.	
Funds or loans from other family members or acquaintances	
Funds or loans from my employer	
NSFAS bursary/loan	
A bursary or scholarship from the university	
A private bursary or scholarship	
Other: Specify	

How did you decide on your field of study (course)?

(If more than one reason use 1 to indicate the main reason, 2 the 2nd; 3 the 3rd etc.)

It is a field that I have always been interested in.	
I got good marks in matric subject(s) related to this course.	
I am interested in the content of the course.	
It is the course that I got into.	
I need to complete this course to enter a particular profession/occupation.	
I think it will lead to good employment opportunities in general.	
My friend enrolled for the same course	
It will enable me to qualify for another course.	
I had difficulty deciding and it seemed like a reasonable option.	
This course has a high status in my community.	
I was advised that the course would be appropriate for me.	
Previous studies at a lower level in the same field	
I did job shadowing for a related job in high school.	
Other (PLEASE SPECIFY):	

What is the highest level of education that each member of your family has attained?

	Mother/ Mother figure	Father/ Father figure	Siblings (Brothers and sisters) (from oldest to youngest)			
			(1)	(2)	(3)	(4)
No formal schooling						
Some formal schooling						
Matric/Grade 12						
College certificate (FET College/Nursing college/Teaching college/similar)						
National Diploma from a University of technology (Technikon)						
Degree from a traditional University						
Postgraduate degree (Masters/Doctorate)						
I am not sure						
Not applicable						

During your time as a student indicate which activities (if any) you have participated in:

(Tick all applicable options).

Faculty/academic societies (e.g., Geography, Psychology, etc.)	
Student Religious groups/societies (e.g. ANSOC, YMCA, ACTS, METSOC, SCO, SADSM, His People, RLM, ZCC and TASSA)	
Sports teams	
Arts and cultural organisations/groups (e.g. Drama, debating, choir, debating, jazz/hip-hop dancing)	
Student governance (e.g., SRC and sub-committees)	
Residence committees	
Tutor/teaching assistant	
Research/laboratory assistant	
Other: Specify:	

In terms of your own views about your strengths and weaknesses, how do you rate yourself in the following areas? Tick the box that best describes your skills in each instance:

	Not very good		In-between			Excellent
Written English	1	2	3	4	5	6
Spoken English	1	2	3	4	5	6
Numeracy skills	1	2	3	4	5	6
Computer literacy	1	2	3	4	5	6
Self-confidence	1	2	3	4	5	6

Please describe any work experience you have:

Some people have a special talent or skill that they try to develop over time. It could be musical, artistic, mechanical, scientific, intellectual, or sport oriented. Do you have any such skill that you have tried to develop?" Please describe this:

Psychological Capital



Please judge each of the following statement in terms of how much the statement describes your present feelings/actions/situation using the following scale:

- 1 – Completely untrue**
- 2 - Moderately untrue**
- 3 – Somewhat untrue**
- 4 – Somewhat true**
- 5 – Moderately true**
- 6 – Completely true**

		Completely disagree	Moderately disagree	Somewhat disagree	Somewhat agree	Moderately agree	Completely agree
1. I worry about little things a lot.	1	2	3	4	5	6	
2. I find it very hard to talk in front of a group.	1	2	3	4	5	6	
3. I like most things about myself.	1	2	3	4	5	6	
4. Other people enjoy being with me.	1	2	3	4	5	6	
5. I get upset easily.	1	2	3	4	5	6	
6. It takes me a long time to get used to anything new.	1	2	3	4	5	6	
7. It's pretty tough to be me.	1	2	3	4	5	6	
8. Things are all mixed up in my life.	1	2	3	4	5	6	
9. I was happy growing up in my home.	1	2	3	4	5	6	
10. I often feel upset with my work.	1	2	3	4	5	6	
11. I'm not as nice looking as most people.	1	2	3	4	5	6	
12. If I have something to say, I usually say it.	1	2	3	4	5	6	
13. Most people are better liked than I am.	1	2	3	4	5	6	
14. I give up easily when I find a task difficult.	1	2	3	4	5	6	
15. I often wish I were someone else.	1	2	3	4	5	6	

For each of the following statements, place a cross (x) in the box that best describes you. Note that the boxes always extend from one extreme feeling to the opposite thereof.

	Completely bored						Excited & enthusiastic					
16. I am usually:	1	2	3	4	5	6	1	2	3	4	5	6
	Completely routine						Completely exciting					
17. Life to me seems:	1	2	3	4	5	6	1	2	3	4	5	6
	No goals or aims at all						Very clear goals					
18. In life I have:	1	2	3	4	5	6	1	2	3	4	5	6
	Utterly meaningless & without purpose						Very purposeful & meaningful					
19. My personal existence is:	1	2	3	4	5	6	1	2	3	4	5	6
	Exactly the same						Constantly new & exciting					
20. Every day is:	1	2	3	4	5	6	1	2	3	4	5	6
	Made no progress whatever						Progressed to complete fulfilment					
21. In achieving life goals I have:	1	2	3	4	5	6	1	2	3	4	5	6
	Empty, filled only with despair						Overflowing with exciting good things					
22. My life is:	1	2	3	4	5	6	1	2	3	4	5	6

	Completely worthless			Completely worthwhile		
23. If I should die today, I would feel that my life has been:	1	2	3	4	5	6

	A painful and boring experience			A source of pleasure & satisfaction		
24. Facing my daily tasks is:	1	2	3	4	5	6

	No mission or purpose in life			Clear-cut goals & a satisfying life purpose		
25. I have discovered:	1	2	3	4	5	6

Read the statements below and indicate to what extent you agree (or disagree) with each of these using the following scale:

- 1 – Strongly disagree**
- 2 – Moderately disagree**
- 3 – Somewhat disagree**
- 4 – Somewhat agree**
- 5 – Moderately agree**
- 6 – Strongly agree**

	Strongly disagree	Moderately disagree	Somewhat disagree	Somewhat agree	Moderately agree	Strongly agree
26. I feel like what happens in my life is mostly determined by powerful people	1	2	3	4	5	6
27. Much of what happens in my life is as a result of luck.	1	2	3	4	5	6
28. Even if people have the ability, they will not gain leadership positions without powerful allies.	1	2	3	4	5	6
29. Much of what happens to me is determined by chance	1	2	3	4	5	6
30. Much of what happens in my life is controlled by powerful others	1	2	3	4	5	6
31. It does not help to plan too far ahead as most things are controlled by luck	1	2	3	4	5	6
32. Getting what I want requires pleasing those people more powerful than me	1	2	3	4	5	6
33. Becoming a leader depends on being lucky enough to be in the right place at the right time	1	2	3	4	5	6
34. What happens in my life is largely dependent on other people.	1	2	3	4	5	6
35. When I get what I want, it is usually because I worked hard for it.	1	2	3	4	5	6
36. A person can overcome all most challenges in life if they work hard enough.	1	2	3	4	5	6
37. What happens in my life is determined by my own actions.	1	2	3	4	5	6
38. The harder I work, the better my academic results.	1	2	3	4	5	6

Indicate to what extent each of the segments below describes you using the following scale:

- 1 - Completely unlike me**
- 2 - A lot unlike me**
- 3 - A bit unlike me**
- 4 - A bit like me**
- 5 - A lot like me**
- 6 - Completely like me**

	Completely unlike me	A lot unlike me	A bit unlike me	A bit like me	A lot like me	Completely like me
39. I am aware of my emotions when making decisions	1	2	3	4	5	6
40. Many things that have happened to me are unfair. -	1	2	3	4	5	6
41. I can easily say what I think and feel.	1	2	3	4	5	6
42. I am committed to my family.	1	2	3	4	5	6
43. I can easily imagine how someone else feels.	1	2	3	4	5	6
44. I am respected by my friends and family.	1	2	3	4	5	6
45. I can easily say and show how I feel.	1	2	3	4	5	6

46. There are many things that I would like to change about myself.	-	1	2	3	4	5	6
47. I do my own thing.		1	2	3	4	5	6
48. I like who I am.		1	2	3	4	5	6
49. My relationships with others are deep and meaningful.		1	2	3	4	5	6
50. There are many things in my life that have meaning.		1	2	3	4	5	6
51. My life has a great deal of meaning.		1	2	3	4	5	6

The statements below relate to how you see yourself. Please respond to them as if you were describing yourself to yourself. Read each statement carefully; Place a cross (x) in the box that best describes you.

1 - Completely false

2 - Mainly false

3 - Somewhat (a bit) false

4 - Somewhat (a bit) true

5 - Mainly true

6 - Completely true

	Completely false	Mainly false	Somewhat (a bit) false	Somewhat (a bit) true	Mainly true	Completely true
52. A person's faith is unique to each individual. I've considered and reconsidered it myself and know what I can believe..	1	2	3	4	5	6
53. I've developed my own individual viewpoint of what is for me an ideal "life style" and don't believe anyone will be likely to change my perspective.	1	2	3	4	5	6
54. It took me a while to figure it out, but now I really know what I want for a career.	1	2	3	4	5	6
55. I've gone through a period of serious questioning about faith and can now say I understand what I believe in as an individual.	1	2	3	4	5	6
56. It took me a long time to decide but now I know for sure what direction to move in for a career.	1	2	3	4	5	6
57. After a lot of self-examination I have established a very definite view on what my own life style will be.	1	2	3	4	5	6

The statements below relate to how you see yourself. Please respond to them as if you were describing yourself to yourself. Read each statement carefully; Place a cross (x) in the box that best describes you.

1 - Completely unlike me

2 - A lot unlike me

3 - A bit unlike me

4 - A bit like me

5 - A lot like me

6 - Completely like me

	Completely unlike me	A lot unlike me	A bit unlike me	A bit like me	A lot like me	Completely like me
58. Self-control is no problem for me.	1	2	3	4	5	6
59. I find it hard to wait for something I want.	1	2	3	4	5	6
60. I get more impatient than most people when I have to wait for a long time.	1	2	3	4	5	6
61. I wish I were less impulsive.	1	2	3	4	5	6
62. I easily give up when something becomes too difficult..	1	2	3	4	5	6
63. I tend to make quick judgments of people.	1	2	3	4	5	6
64. I tend to be moody.	1	2	3	4	5	6
65. I have trouble resisting temptation.	1	2	3	4	5	6
66. I tend to jump to a second task before I have completed the first one.	1	2	3	4	5	6
67. Most people who know me consider me to be impatient.	1	2	3	4	5	6
68. I have frequent ups and downs in mood.	1	2	3	4	5	6

Standard of Living

Indicate which of the following were present in the household that you grew up in i.e. the household that you lived in for the majority of your life up to matric.

Place a tick (✓) next to the items that were present:

- Tap water in house or on your property	
- Hot running water from a geyser	
- Flush toilet in house or outside on the property	
- TV set	
- Microwave oven	
- Computer (Desktop/ Laptop)	
- TV set	
- Electric stove	
- A motor vehicle	
- Vacuum cleaner/floor polisher	
- Live-in, full-time or part-time domestic worker, helper or gardener	

How many cell phones were there in the household that you grew up in?	
---	--

- Did you grow up in a rural area such as a farm or traditional tribal village, outside Gauteng or the Western Cape	Yes	No
---	-----	----

In-service training: CPUT Students:

Has your class group been for in-service training yet?	Yes	No
--	-----	----

If yes, did you attend in service training?	Yes	No
---	-----	----

If yes, please supply the following information:

Name of Organisation:	
Department in organisation:	
Name of supervisor:	
Tel no:	

If no, why did you not attend in-service training?

Could not find a placement	
Did not qualify (have not completed all required subjects):	
Other: Specify	

Appendix D: Insttutional permissions

- (i) CPUT permission letetr



Office of the Deputy Vice-Chancellor: Academic
Cape Town Campus
P O Box 652
Cape Town
8000
Tel: 021-4603356
Fax: 021-4603983
Email: staaka@cput.ac.za

29 October 2013

Mr J Kiley

Dear Mr Kiley

RE: REQUEST FOR PERMISSION TO CONDUCT RESEARCH

I have considered your request and hereby grant you permission to collect data at CPUT for your Doctoral study entitled "Exploring the relationship of identity capital with employability".

This is done on the understanding that your request to collect data at CPUT has been favourably considered by the Institution Ethics Review Board.

Yours Sincerely

Signature Removed

(Prof) A.P.Staak
Deputy Vice-Chancellor: Academic
Cape Peninsula University of Technology

(ii) UWC permission letter



UNIVERSITY of the
WESTERN CAPE

OFFICE OF THE REGISTRAR

Private Bag x17, Bellville 7535
South Africa
Telegraph: UNIBELL
T: +27 21 959 2102/2111
F: +27 21 959 3126
Website: www.uwc.ac.za

30 July 2015

TO WHOM IT MAY CONCERN

RE: PERMISSION TO DO RESEACH

I hereby confirm that permission has been granted to **Jerome Kiley** to conduct a research study towards his PhD Thesis. The Project title is: "Exploring the relationship of identity capital with employability". Ethics clearance has been granted by the University of Cape Town.


Yours sincerely

Signature Removed

MS N LAWTON-MISRA
REGISTRAR



(iii) UCT permission letter (DSA 100)

	RESEARCH ACCESS TO STUDENTS	DSA 100
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NOTES

- This form must be FULLY completed by all applicants that want to access UCT students for the purpose of research.
- Return the fully completed (a) DSA 100 application form by email, in the same word format, together with your: (b) research proposal inclusive of your survey, (c) copy of your ethics approval letter / proof (d) informed consent letter to: Moonira.Khan@uct.ac.za. Your application will be attended to by the Executive Director, Department of Student Affairs (DSA), UCT.
- The turnaround time for a reply is approximately 10 working days.
- NB: It is the responsibility of the researcher/s to apply for and to obtain ethics approval and to comply with amendments that may be requested; as well as to obtain approval to access UCT staff and/or UCT students, from the following, at UCT, respectively: (a) Ethics: Chairperson, Faculty Research Ethics Committee' (FREC) for ethics approval, (b) Staff access: Executive Director: HR for approval to access UCT staff, and (c) Student access: Executive Director: Student Affairs for approval to access UCT students.
- Note: UCT Senate Research Protocols requires compliance to the above, even if prior approval has been obtained from any other institution/agency. UCT's research protocol requirements applies to all persons, institutions and agencies from UCT and external to UCT who want to conduct research on human subjects for academic, marketing or service related reasons at UCT.
- Should approval be granted to access UCT students for this research study, such approval is effective for a period of one year from the date of approval (as stated in Section D of this form), and the approval expires automatically on the last day.
- The approving authority reserves the right to revoke an approval based on reasonable grounds and/or new information.

SECTION A: RESEARCH APPLICANT/S DETAILS

Position	Staff / Student No	Title and Name	Contact Details (Email / Cell / land line)
A.1 Student/s Number /s	KLYJER001	Mr Jerome Kiley	KLYJER001@myuct.ac.za kileyj@cput.ac.za
A.2 Academic / PASS Staff No.			
A.3 Visitor/ Researcher ID No.			
A.4 University at which a student or employee	UCT – PhD student CPUT - Lecturer	Address if <u>not</u> UCT:	
A.5 Faculty/ Department/School	Faculty of Commerce: Department of Organisational Psychology ;School of Management Studies		
A.6 APPLICANTS DETAILS If different from above	Title and Name	Tel.	Email
	Mr Jerome Kiley	0846523315	KLYJER001@myuct.ac.za

SECTION B: RESEARCHER/S SUPERVISOR/S DETAILS

Position	Title and Name	Tel.	Email
B.1 Supervisor	Prof Suki Goodman	0216502472	suki.goodman@uct.ac.za
B.2 Co-Supervisor/s	Dr Ines Meyer	021 650 3829	ines.meyer@uct.ac.za

SECTION C: APPLICANT'S RESEARCH STUDY FIELD AND APPROVAL STATUS

C.1 Degree – if applicable	PhD Organisational Psychology
C.2 Research Project Title	Exploring the relationship of identity capital with employability
C.3 Research Proposal	Attached: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
C.4 Target population	3 rd year University and University of Technology Students
C.5 Lead Researcher details	If different from applicant:
C.6 Will use research assistant/s	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes- provide a list of names, contact details and ID no.
C.7 Research Methodology and Informed consent:	Research methodology: Survey research Informed consent: Informed consent form attached to front of questionnaire.
C.8 Ethics clearance status from UCT's Faculty Ethics Research Committee (FREC)	Approved by the FREC Yes <input checked="" type="checkbox"/> With amendments: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> (a) Attach copy of your ethics approval. Attached: Yes (b) Date and reference no. of ethics approval: 26 August 2013 Ref. No / Faculty: UCT/COM/264/2013

**SECTION D: APPLICANT/S APPROVAL STATUS FOR ACCESS TO STUDENTS FOR RESEARCH PURPOSE
(To be completed by the ED, DSA or Nominee)**

D.1 APPROVAL STATUS	Approved / With Terms / Not	* Conditional approval with terms	Applicant/s Ref. No.:
	(i) Approved <input checked="" type="checkbox"/> (ii) With terms <input type="checkbox"/> (iii) Not approved <input type="checkbox"/>	(a) Access to students for this research study must only be undertaken after written ethics approval has been obtained. (b) In event any ethics conditions are attached, these must be complied with before access to students.	KLYJER001/ Mr Jerome Kiley
D.2 APPROVED BY:	Designation Executive Director Department of Student Affairs	Name Dr Moonira Khan	Signature Signature Removed
			Date of Approval 21 July 2015

(IV) Red & Yellow School permission (can't locate letter)

8/19/2017

Re: Letter: PhD research

Reply all Delete Junk

Re: Letter: PhD research

BJ Bonnie Johansen <bonnie.johansen@redandyellow.co.za> Reply all
Mon 02/11/2015, 11:02
Jerome Kiley; Shereen Van Schoor <shereen.vanschoor@redandyellow.co.za>

Inbox

Hi Jerome

Thanks for the mail glad it all worked out, Shereen please draw up this letter and i will sign it then we can email it to Jerome.

many thanks. Bonnie.

On Mon, Nov 2, 2015 at 10:55 AM, Jerome Kiley <KileyJ@cput.ac.za> wrote:

Dear Bonnie and Shereen

I would like to thank you once again for the opportunity the other day to collect data from your students.

Shereen thanks also for all the assistance and the extremely friendly manner in which I was received.

Apologies for taking so long to get back to you! My energy levels took a serious dip with all the protests and disruptions on campus.

As discussed, I would appreciate it if you could provide me with a letter on a Red & Yellow letter head that reads something like the below:

We hereby confirm that Jerome Kiley was granted permission to collect data from the Red and Yellow students and that we are satisfied with the UCT ethics clearance.

Kind regards

Jerome

From: Bonnie Johansen [mailto:bonnie.johansen@redandyellow.co.za]
Sent: 15 October 2015 11:28 AM

Subject: Re: PhD research

Thanks Shereen and Jerome i will leave it to you guys to organise.

Let me know when it is I would love to sit in and understand.

many thanks Bonnie.

On Thu, Oct 15, 2015 at 10:26 AM, Jerome Kiley <KileyJ@cput.ac.za> wrote:

Hi Shereen

Thanks for this, I appreciate! I have diarised Monday 12:00-13:00. I also available to chat afterwards as my day is pretty open.

The title of my thesis is: "Exploring the relationship of identity capital with employability".

The study is about the impact of various "identity resources" and their impact on employability. I have attached a copy of my model – the 1st phase and 3rd phase would apply to your students (2nd phase applies to CPUT students who do in-service training as well).

The only other thing that I would like to request is a permission letter – preferably on your letter head stating: (i) that you grant me permission to collect data from your students; and (ii) that you are satisfied with the UCT ethics clearance.

Kind regards

Jerome

(V) FEDISA permission letter



20 October 2015

TO WHOM IT MAY CONCERN

We hereby verify that **Mr Jerome Kiley** has been granted permission to collect data from the students of FEDISA (Pty) Ltd. We would also like to confirm that FEDISA (Pty) Ltd is satisfied with the UCT ethics clearance.

This letter further confirms that FEDISA (Pty) Ltd is a Registered and Accredited provider of Private Higher Education and that the **Degree: BA - Fashion Design**, offered by **FEDISA (Pty) Ltd**, has been registered by **SAQA** (South African Qualifications Authority), under **ID Number: 60109**.

This information may be verified by viewing the list of registered institutions in the official SAQA website www.saqa.org.za.

I trust you will find the above in order. Please do not hesitate to contact me if I may be of any further assistance.

Yours truly,

Signature Removed

Allen Leroux
CEO/Academic Director
e-mail: info@fedisa.co.za



info@fedisa.co.za
<http://www.fedisa.co.za>
Telephone: +27 21 424 0975. Fax: +27 21 424 6458
PO Box 503, Sea Point, Cape Town, South Africa, 8060
81 Church Street, Cape Town, South Africa

Registered with the Department of Higher Education and Training as a Private Higher Education Institution under the Higher Education Act, 1997. Registration Certificate of Registration Number: 2007/HE07/003
Directors: AD Leroux, G Bird
FEDISA (Pty) Ltd, Reg. No: 2006/01870/07

(VI) MAPS permission email

Re: Request assistance: MAPS, ISRI and ICMC

Page 1 of 1

Re: Request assistance: MAPS, ISRI and ICMC

James Cote [cote@uwo.ca]

Sent: 31 December 2011 02:12 PM

To: J.Kiley [J.Kiley@open.ac.uk]

Attachments: MAPS.MAN.doc (24 KB) ; MAPS20.doc (117 KB) ; isri items and psychometrics.doc (36 KB) ; III48.doc (88 KB) ; III90ManualMay06.doc (285 KB) ; ATT00001.txt (2 KB)

Dear Jerome: Many thanks for your interest in my work. I've attached the instruments requested (with the exception of the ICMC which you will need to recreate yourself from the original article with your own word processor the get the proper alignment of the charts). You have my permission to use these.

Attached are:

- the original MAPS, with manual, and the shortened version MAPS20 (which works well, but nothing published yet)
- the ISRI
- the III, which I suggest as a more in-depth substitute for the ISRI - the original and shortened versions are attached - there are no published articles describing it yet, but I am working to collect data in a variety of cultural contexts. You can see its development in Roberts, S. (2007). Identity stage resolution in the prolonged transition to adulthood: Development and validation of the Identity Issues Inventory. Dissertation. The University of Western Ontario, London, Ontario, Canada., available through dissertation abstracts international.

Please let me know if you have further questions and be sure to let me know how your research turns out.

Best wishes,

James Côté, Ph.D.,
Department of Sociology
The University of Western Ontario
London, Ontario, Canada, N6A 5C2
<http://sociology.uwo.ca/People/Faculty/Cote.html>

President, RC34 - Sociology of Youth,
International Sociological Association
<http://www.rc34youth.org/>

Blog: <http://www.ivorytowerblues.com/>

Appendix E: Telephone Survey Schedule (Study one)



No: _____ (from spreadsheet)

Hi _____ I am calling on behalf of Jerome Kiley. You completed a questionnaire for his PhD study last year (he gave out chocolates to say thanks)

Anyhow, we are now following up about what you are doing this year and would appreciate 5-10 minutes of your time. Your participation is voluntary.

Are you willing to participate? **Yes / No / Not now**

If **not now** when can I call you back? _____

Before we carry on, please note that all the information we are collecting is confidential and will only be used for the study. As mentioned previously, no one's name/details will be linked to the published study. You are also welcome to withdraw from the interview at any time.

Jerome Kiley, CPUT Lecturer and UCT PhD student, Tel: 0824645521 e-mail: email: jerome.kiley@uct.ac.za

Are you	(1) working	(2) studying	(3) both	(4) unemployed
----------------	--------------------	---------------------	-----------------	-----------------------

1. Working:

1.1 Who are you working for? _____ (if hesitation explain we are interested in types of organisations i.e. big/small/family/government/yourself etc. Also in-service employer and related industry)

1.2 When did you start working for _____ : _____

1.3 What is your job title? _____

1.4 Is this a permanent post? Yes /No / Learnership-Internship / other _____

1.5 How many hours do you work per week on average? _____

1.6 How did you find out about this job?

1.7 What factors (things or people) in your opinion helped you in gaining this post?

_____ (How many interviews?) _____

1.8 On a scale of 1-6 (where 1 is not at all and 6 is a great deal) how closely related is your job to your studies? _____ Why?

1.9 On a scale of 1-6 (where 1 is not at all and 6 is a great deal) how much did your studies prepare you for your job? _____ Why?

1.10 On a scale of 1-6 (where 1 is not at all and 6 is a great deal) how satisfied are you with the job you have? _____ Why?

- 1.11 Please tell me about why you feel this way about your job?

- 1.12 Could you give me an idea of your gross salary (before deductions) per month:

- 1.13 Did you have another job before your current one? If so what was this (Post/With who/how long) ----

- 1.14 Is there anything else that you would like to tell me about your job? _____

2. Studying:

- 2.1 Are you studying (i) Full-time / (ii) Part-time
- 2.2 What are you studying? _____
- 2.3 Why are you studying? (Mark all applicable):

Improve my qualifications	
Better work prospects	
Couldn't get a job	
Finishing qualification from last year	
Other:	

- 2.4 How are you financing your studies? _____

(If person mentions part-time work **go back to section 1 if stated they are unemployed earlier** – emphasise we are only trying to find out about their circumstances for the study i.e. not interested in university rules etc.)

3. In-service: (Student did not supply in-service details i.e. groups not attended when round 1 data collected)

- 3.1 Did you go on in-service training last year? Yes / No

If yes:

- 3.2 Company: _____ 3.2 Supervisors: _____

- 3.3 Tel no: _____

If no:

- 3.4 Why not? _____

4. Unemployed

- 4.1 Are you looking for a job? Yes / No 4.2 If No: Why:

- 4.3 Why do you think you don't have a job yet? _____

- 4.4 What do you feel would help you get a job?

General

5.1 Is there anything else you would like to mention/add?

Appendix F: Telephone Survey Schedule (Study 2)



To be completed from in-service employer lists:

Name: _____ Contact telephone no: _____

Company: _____ Position: _____

Actual interview:

Good morning/afternoon _____

As part of a PHD study you are being requested to evaluate your general satisfaction with _____ (students' name) that has completed his/her in-service training with your organisation. _____

has given his permission for the data to be collected during an earlier survey when information was collected from him/her. This forms part of a study examining various attributes of students and how these contribute to their employability. One dimension of the study comprises the examination of the satisfaction of in-service employers with various skills and attributes demonstrated by students in their service.

Please note that the student will not have access to this data and that I am not interested in individual responses but in averages and trends across a large sample of responses.

If you participate in this interview, which should not take more than five minutes, it means that you have consented that this information be collected. All information that you provide will be kept confidential. Any reference to who participated in the interview will be deleted when the data set is recorded.

Your support in this endeavour is greatly appreciated.

Jerome Kiley, CPUT Lecturer and UCT PhD student

Tel: 0824645521 e-mail: email: jerome.kiley@uct.ac.za

Relationship to _____ (student) during in-service training
_____ (e.g. manager/supervisor).

Please indicate how satisfied you are with each of the following skills and abilities as exhibited by the student during his/her service learning period.

Please rate each of the skills/abilities on a scale from 1 to 6 where 1 indicates that you were very dissatisfied and 6 very satisfied with _____ abilities.

	Very dissatisfied				Very satisfied	
	1	2	3	4	5	6
1. Subject or discipline specific knowledge relating to _____ (students' field of study)	1	2	3	4	5	6
2. Technical _____ (students field of study) skills	1	2	3	4	5	6
3. Proficiency in spoken English	1	2	3	4	5	6
4. Proficiency in written English	1	2	3	4	5	6
5. Proficiency in English	1	2	3	4	5	6
6. Understanding of the world of work	1	2	3	4	5	6
7. Computer literacy	1	2	3	4	5	6

How would you rate _____ in terms of each of these attributes?

	Lacks a sense of who he/she is			A clear sense of who he/she is		
8. A clear sense of identity	1	2	3	4	5	6

	Lacks self-confidence			Very self-confident		
9. Self-confident	1	2	3	4	5	6

	Poor			Good/positive		
10. Self-esteem (How _____ feels about him/herself)	1	2	3	4	5	6

	Lacks purpose			Clear purpose & direction		
11. Purpose in life	1	2	3	4	5	6

	Poor			Good/positive		
12. Attitude about him/herself	1	2	3	4	5	6

	Controlled by factors out of his/her control			Believes that his/her success on factors that he/she controls		
13. _____ believes that they can control events that affect him/her	1	2	3	4	5	6

	Not at all driven			Highly driven		
14. Driven to reach his/her full potential	1	2	3	4	5	6

	Not at all			Clear set of values		
15. Has a clear set of values	1	2	3	4	5	6

16. Please indicate your general satisfaction with the performance of the student during his/her time with your organisation.

Very dissatisfied			Very satisfied		
1	2	3	4	5	6

17. Assuming there were no limitations regarding this decision, you were the sole decision maker and **without any obligation**, please indicate how likely it would be that you would employ this student.

Not at all likely			Very likely		
1	2	3	4	5	6

18. Please supply any additional information that you may regard as relevant regarding your satisfaction with this student during his/her in-service employment with your organisation.

Appendix G: Developing the self-administered student questionnaire (Study one)

The purpose of the self-administered survey was to measure the various forms of identity capital possessed by students in their final year of study. The majority of the items in the initial survey scale measuring tangible identity capital were sourced from Côté's (1997, 2002) and Côté and Levine's (1997, 2000, 20002) work, whereas the intangible identity capital subscales were sourced from Côté's (1997, n.d.) MAPS instrument. The rationale for this was that the independent variables in the study were structured around Côté's (1996, 1997a, 2002, 2005) identity capital model.

There was some concern regarding the possible cultural bias of the instrument. Cultural bias comprises prejudicing subjects from particular segments of a population through the use of tests that presume a particular cultural knowledge which has the consequence that subjects unfamiliar with the culture might perform poorly on such tests, simply because they do not have the appropriate social background to understand the questions (Stuart-Hamilton, 2007). The concern arose from the fact that Côté's (1997, 2002) studies were conducted in Canada and that his MAPS subscales were developed from Eurocentric scales which had not used previously with South African samples. A further concern was that the majority of the respondents in the study would not be first language English speakers.

Johnson and Morgan (2016) suggest several strategies to reduce measurement errors relating to a scale, including expert reviews, focus groups and pilot studies which were also then employed in this study.

1. Subject matter expert review

Subject matter experts serve to provide feedback regarding the match between the items and the underlying constructs that a scale aims to measure (Johnson & Morgan, 2016). In the context of this study, the researchers' supervisors were provided with a copy of the survey together with definitions of the underlying constructs for review. This process was followed with each variation of the survey as changes were made based on the focus group and pilot studies reviewed below. Feedback and advice were obtained based on the layout and possible problematic questions. For example, with regards to the item "Q.35 With regards suicide I have (1) thought of it often to (6) never given it a second thought" as well as the selection of replacement scales where necessary.

2. Focus group review

Focus groups are a qualitative research method in which a trained moderator facilitates a collective discussion of a topic within small groups, typically six to eight respondents, who possess similar characteristics that are of interest (Jarvis & Barberena, 2008; Rea & Parker, 2014; Ruben & Babbie, 2011). Two advantages of this approach are that focus groups allow for open and dynamic lines of communication between participants (Jarvis & Barberena, 2008) and produce in-depth insights regarding the needs and expectations of a population (Fink, 2003). Typically, sampling in focus groups involves non-probability sampling using purposive samples based on participants' relevance to the topic examined (Rea & Parker, 2014; Ruben & Babbie, 2011). Cowles and Nelson (2015) recommend the use of focus groups with small numbers of individuals from the targeted population in order to improve survey quality.

For this study, a convenience sample comprising a class of 32 fourth year CPUT human resource management students was requested to complete the proposed study one time one self-administered survey. They were asked to comment on items by making annotations in their questionnaires to record any observations. They were then asked to divide themselves into groups comprising between five and seven respondents, resulting in five focus groups. Each group was asked to nominate a scribe who recorded group members comments. This was a slight variation of the focus group method as a trained facilitator was not used to moderate the groups here. Responses were anonymous in that the scribes were asked to only record the inputs but not the group member's names. The notes were submitted to the researcher. Focus group members were instructed to converse in whatever language best suited them. The researcher left the venue during the process to create as neutral an atmosphere as possible.

The issues that the respondents were asked to comment on, both individually and in the groups, were:

- The language used and any problematic issues regarding the understanding of terms;
- Any items that they felt uncomfortable answering;
- The process followed in explaining and administering the survey questionnaire;
- How understandable and clear the questionnaire instructions were as well as how the respondent perceived these; and
- Any other issues that came to mind which felt relevant.

The complete feedback received from the focus groups is presented in Appendix D, whereas a summary of the issues identified, together with how they have addressed, is set out in table 1 below.

Table 1

Issues identified with the time one survey instrument in the focus group discussions and remedial actions taken

General feedback about the questionnaire
<p>In general, the feedback was positive: The questionnaire was “generally easy to complete”, “well structured”, “easy to understand”, “interesting”, “thought-provoking”, “realisations came from it”. Participants also noted that the questionnaire assists you to, “get to know yourself better”, “motivate you to change these circumstances” and that “in general the standard of the questionnaire was good.”</p> <p>Simultaneously the respondents expressed concerns regarding the sensitivity of some of the questions commenting that the questionnaire was “quite challenging and personal” or even “too personal”, that the “MAPS questionnaire makes people feel exposed” and that “some questions are depressing”.</p>
Anonymity
<p>There were instances where respondents felt the lack of anonymity placed a restriction on their ability to answer freely and honestly, e.g. “if it was anonymous people would feel free to answer more honestly”; “it is not always easy answering questions about yourself considering you’ve given your personal details”; “participants may be dishonest in answering”; “this type of questionnaire shouldn’t require personal details, although it is understandable in the given circumstances you may want to follow up” and “people may be more open/honest if the personal details were not required”.</p>
<p>Remedial action:</p> <p>The nature of the study did not allow for anonymous participation, as it was necessary to conduct follow-up interviews. However, note was taken to provide the respondents with additional assurances regarding the confidentiality of the information provided.</p>
Length of the questionnaire
<p>It was reported that the questionnaire was “too long”, “extremely lengthy” and even that this may be a problem as “having it done by students might be a problem as students are lazy and wouldn’t take the time to go through such a long questionnaire”.</p> <p>Remedial action:</p> <p>The initial instrument comprised 136 items, which was quite lengthy. It was thus decided to conduct a pilot study to ascertain the reliability of the scales, to conduct an exploratory factor analysis and eliminate items that did not load sufficiently and in this way reduce the overall number of items.</p>
Grammatical errors
<p>Some minor grammatical and spelling errors were noted such as “I and my assistant...” in the consent form, a grammatical error in the instructions at the top of p. 5 and bottom of p.6.</p> <p>Remedial action:</p> <p>The grammatical errors were corrected in the final version.</p>

Table 1 (continued)

<p>Psychological capital response options</p> <p>There were suggestions that “the rating scale has too many options - maybe 1-3 or 1-5” and that this was “a bit tricky and should be constructed a bit more easily” or that use be made of “simpler options in terms of which box the individual must select”.</p> <p>Remedial action: While there are suggestions that as few as three response options are sufficient for Likert-type scales (Jacoby & Matell, 1971); Preston and Coleman (2001) found that scales with more than four points had significantly higher indices of reliability, validity and discriminant power. The items in the original MAPS questionnaire varied between two and seven response options (Côté, n.d.; 1997); however, it was decided to create a standard response format to minimise confusion among respondents. A six-point response format was used throughout the instrument in this study.</p>
<p>Language and understanding of questions</p> <p>The feedback on the level and usage of language varied from positive such as that “the language was simple enough to understand” to that the language usage was challenging in that “some questions had high level of language”, “language barrier for none-English speaker – words such as lucky breaks, ecstasy, there here and now”.</p> <p>Remedial action: Given that there were no specific recommendations, it was decided not to address the issues at this stage, but instead monitor possibly questionable items in the pilot study.</p>
<p>Rewarding the respondents</p> <p>After completing the exercise, each respondent was given a bar of chocolate to thank them for their time. The researcher decided to do this after one of the respondents asked “What were they going to get?” and the group was quite amenable to the idea that a bar of chocolate be purchased from the cafeteria by the researcher to thank them for their participation.</p> <p>Remedial action: This was also the impetus that motivated the researcher to use chocolates to thank respondents for participating in round one of the data collection in the study and to serve as a reminder with the second round of data collection as this took place a year later.</p>
<p>FEEDBACK ON SPECIFIC SECTIONS</p>
<p>Instrument instructions and consent form (see Appendix E)</p> <p>Overall the feedback was positive with one individual commenting that “it explained everything clearly and gave us the freedom to decide”. The feedback regarding the instructions was also that these were clear and provided “an explanation to the participant what the data collection is all about and what the reason is for the questionnaire”. It was also noted that the questions “made us reflect before answering” and that the questions “take a lot of thought”.</p> <p>In the consent form the statement “This does not negate your right to withdraw at any stage as noted above.” One respondent noted, “this was not clear”.</p> <p>Remedial action: “Negate” was replaced with “limit.”</p>

Table 1 (continued)

<p>Biographic Information and tangible identity capital (see Appendix F)</p> <ul style="list-style-type: none"> - Campus activities – “include other activities because many students take part in activities in communities & church.” - Decide on the field of study – “too many options to choose from, can be reduced.” - Special talents: “Re-phrase the question about special talents. It’s too guided.” - Pay for studies: “Consider putting a table for respondents to tick on the questions on how you pay for your studies”; “order number of sources confusing”; “initially I was a bit confused by this method”; “NSFAS – spell out, not everyone knows what it means”. - “Questionnaire should include spaces for comments.” - “Some statements were a bit too long- maybe should be briefly phrased.” - “Why not have a section where the participant can give a summary of him/herself.” <p>Remedial action: A new category was added to the activities section “Other: Specify.” The other sections were left as is given that they were guided by Côté and Levine’s work and that the questions options were exhaustive and mutually exclusive.</p> <p>Self-esteem scale (Q.1-25) (see Appendix G) Q.1-25 – “6 options are too many”, “try reducing to 5 and having 3 as the neutral choice”; “I would change the ratings by taking ‘unlike me’ and ‘like me’ and adding agree in places”; “the ratings are personally too much and confusing at times for certain questions”, “some of the questions are very personal and tend to tap into the emotional perspective”; “scale a bit confusing”; “rating scale can be from 1-3 or 1-4”; “some options are very personal”; “rating scale broad”, “confuses me”; “1-6 too broad”, “1-4 simpler”; “criteria confusing in relation to certain statements (not specify which)”; “change options to something else as they do not apply to some of the questions”.</p> <p>The following items were identified as sensitive</p> <ul style="list-style-type: none"> - Q.8 I'm popular with persons my own age - Q.9 My family usually considers my feelings. - Q.12 It's pretty tough to be me. - Q. 13 Things are all mixed up in my life. - Q.14 relating to the ability to convince others, - Q.15 I have a low opinion of myself. - Q.16 There are many times when I would like to leave home. - Q.17 I often feel upset with my work. - Q.18 I'm not as nice looking as most people. <p>Comments included “could be very personal, especially if they are depressed and responses not anonymous”, “offensive; a bit personal.”</p>
--

Table 1 (continued)

<p>Other issues raised:</p> <ul style="list-style-type: none"> - Q.1 Things usually don't bother me. Some respondents felt that this was ambiguous, e.g. "a bit vague, which things?" and "things may bother student in one aspect and not in another" - Q.2 I find it hard talking in front of a group. Two respondents questioned the relevance of the "size of the group" and that the question should "specify size of group". - Q.22 I usually feel as if my family is pushing me. Respondents felt that this was ambiguous in that they asked "How?" and "Towards?" <p>Remedial action: Particular attention was paid to the questions identified when examining the Cronbach-Alpha corrected item-total correlation reliability for the items in the scale during the subsequent pilot study. It was noteworthy that only four (Q. 8, 9, 14 & 22) of the nine items excluded had been identified as possibly problematic by the focus group participants.</p>
<p>Purpose-in-life scale (Q.26-37) (see Appendix H)</p>
<p>Q.26-37 – "Like these better than previous grid"; "Clear, the contrast between opposite feelings, makes distinctions clear and easy to fill in"; "this part of the questionnaire makes more sense to an individual on where they currently in life and where they are headed"; "interesting set of questions"; "I would change the rating scale to out of 4 instead of 6"; "choices confusing".</p> <p>Q.32 My life is (1) empty filled only with despair (6) running over with exciting good things. - "emotional question" and "emotional question in terms of the participant's perspective of the question".</p> <p>Q.35 With regards to suicide, I have (1) I have thoughts of it often (6) never gave it a second thought. - "too sensitive"; "emotional question"; "too personal for me, takes me back to point in my life that I don't ever want to return to" and "can trigger past memories."</p> <p>Remedial action: Q. 35 removed from the scale as it was regarded as too sensitive (see section 4.9 Ethical considerations below). Particular attention was paid to explaining Q.32 when introducing the scale.</p>
<p>External locus of control scale (Q.38-42) (see Appendix I)</p>
<p>Q.38 Becoming a success is a matter of hard work. Lucky breaks have little or nothing to do with it. One respondent noted that "lucky breaks – confusing to me."</p> <p>Q.41 It is impossible for me to believe that chance or luck plays an important role. A respondent commented "sounds not so good."</p> <p>Q.42 What happens to me is my own doing. A respondent noted, "not clear enough to me; sounds not so good."</p> <p>Q.38-42 – A respondent noted "Quite clear."</p> <p>Remedial action: Given that the feedback was more positive than negative, and that only one respondent had raised issues, it was decided to leave the scale as is for the pilot study and then examine further.</p>

Table 1 (continued)

<p>Ideological commitment scale (Q.49-56) (see Appendix K)</p> <p>Q.49 - Q.51 - A respondent felt that these “statements are too long”.</p> <p>Q. 52 It took me a while to figure it out, but now I really know what I want for a career. and Q.55 It took me a long time to decide, but now I know for sure what direction to move in for a career. – repetition; consider re-wording; similar/repeated</p> <p>Q.54 I've gone through a period of serious questioning about faith and can now say I understand what I believe in as an individual. A respondent felt this was “quite sensitive.”</p> <p>Q.49-56 – A respondent felt these were “Quite clear.”</p> <p>Remedial action: Given that the feedback was quite mixed and that this was Côté’s (n.d.) original scale, it was decided to leave as-is for the pilot study and then examine further.</p>
<p>Self-actualisation scale (Q.43-48) (see Appendix J)</p> <p>Q.43 I have had ecstatic experiences. A respondent noted that “I don’t know how to interpret this!”</p> <p>Q.46 For me, work and play are the same. A respondent found this confusing: “in terms of what?”</p> <p>Q.47 A person can completely change their essential nature. Some respondents felt this question was unclear noting that it did “not make sense”; needed to be “more specific”, that “essential nature did not make sense” question was “not clear” and “I didn’t really understand”.</p> <p>Q.48 I have had moments of intense happiness when I felt like I was experiencing a kind of ecstasy or bliss. A respondent noted that he/she “did not understand” the terms bliss and ecstasy.</p> <p>Q.43 & 48 A respondents noted: “similar/repeated”</p> <p>Q.43-48 A respondent felt these were “Quite clear.”</p> <p>Remedial action: Given that the feedback was quite mixed and given this was Côté’s (n.d.) original scale, it was decided to leave as-is for the pilot study and then examine further.</p>
<p>Ego-strength scale (Q.57-82) (see Appendix L)</p> <ul style="list-style-type: none"> - Q.58 Self-control is no problem for me. and Q.72 I am bothered by my lack of self-control.– “repetition” while Q. 58 was referred to as a “touchy topic and was the question that elicited the most powerful responses - Q.57-82 – “These questions are good, as it gets people to really think about how their emotions, moods etc. affect people and their daily doings” and “statements are to the point which is good, however rating scale too long”. - Q.59, I tend to do things on the spur of the moment. Respondent was unclear about the concept of “spur?” - Q.70 I have trouble resisting temptations. A respondent felt this was ambiguous noting “general temptation?” - Q.72 I am bothered by my lack of self-control. “I feel that if I answer this question, I am answering a different one as well.” - Q.80 I can bear physical discomfort better than most. A respondent noted that this was “not very clear.” <p>Remedial action: Repetition was not necessarily a problem given that a scale can ask the same question in more than one way. Items with possibly confusing wording were monitored when analysing the outcomes of pilot study.</p>

3. Pilot studies

Following the focus groups, several pilot studies were conducted to ensure both the reliability and validity of the intangible identity capital measures in self-administered survey instrument. The reliability of the data was analysed using Cronbach's α which was, in turn, interpreted using Dun's (2009) guidelines, namely that $<.60$ was regarded as unacceptable, $.60 - .65$ as undesirable, $.65 - .70$ as acceptable, $.70 - .80$ as respectable, and $.80 - .90$ as very good. The Kaiser-Meyer-Olkin (KMO) Measure for Sampling Adequacy and Bartlett's test of sphericity were applied to determine if the data were suitable for factor analysis in order to determine the scales' validity. The criteria applied were that KMO scores $>.70$ indicated scale adequacy, whereas Bartlett's score was required to be significant at the 5% level for sphericity to be assumed (Field, 2017; Leech, Barron & Morgan, 2015). Principal components analysis was then applied, where components were retained if their eigenvalues exceeded one as recommended by Kaiser (1960). The scales were also examined to see whether they loaded on a single factor, given that these were treated as singular variables in the study.

3.1 Pilot study one

In the first pilot study, the researcher requested that 150 of his third year CPUT human resource management students complete the initial instrument during a class i.e. the survey modified based on the outcomes of the focus-group study. The sample was selected due to its similarity to the respondents who would be included in the final study. The reliability results are presented in Table 2 and 3 below:

Table 2
Summary of the reliability results obtained in pilot study one

Scale	No. of items	Initial Cronbach α	Removed items*	Final Cronbach α
Self-esteem	25	.789	1, 2, 3, 4, 5, 6, 8, 10, 11, 14, 22, 25	.813
Purpose in life	11	.834	None	.834
Locus of control	5	.517	All items $< .30$	
Self-actualisation	6	.442	All items $< .30$	
Ideological commitment	8	.675	None	.675
Ego strength	26	.615	56, 57, 60, 63, 65, 66, 67, 68, 70, 74, 76, 77, 79, 80, 81	.750

* Items removed with corrected item-total correlations $< .30$

Three of the scales, namely self-esteem ($\alpha = .813$), purpose-in-life ($\alpha = .834$), and ego-strength ($\alpha = .750$) all achieved respectable or very good Cronbach Alpha scores; the reliability of the ideological commitment scale ($\alpha = .675$) was acceptable. However, the locus of control ($\alpha = .517$) and self-actualisation ($\alpha = .442$) scales had low reliabilities. Their validity was thus not assessed.

All four remaining scales produced significant Bartlett's test of sphericity ($p < .000$) scores indicating that the scale items were adequately correlated with each other. The KMO scores for the self-esteem (.813), purpose-in-life (.835) and ego strength (.755) were satisfactory and were suitable for factor analysis. The fourth scale, ideological commitment scale produced a mediocre (.680) value.

Table 3
Summary of the principal components analysis results obtained in pilot study one

Scale	KMO value	Bartlett's test of sphericity	No of factors: eigenvalue > 1	% variance explained	Load on single factor
Self-esteem	.813	.000	F1:	32.03	Yes
			F2:	10.70	
			F3:	8.99	
			F4:	8.09	
			Total:	60.81	
Purpose in life	.835	.000	F1:	33.6	Yes
			F2:	6.46	
			Total:	40.06	
Ideological commitment	.680	.000	F1:	31.61	Yes
			F2:	10.43	
			Total:	42.04	
Ego strength	.755	.000	F1:	24.29	Yes
			F2:	9.13	
			F3:	4.40	
			Total:	37.82	

Given that the psychometric properties of the ideological commitment, locus of control and self-actualisation scales were not adequate, it was decided to perform a second pilot study.

3.2 Pilot study two

The survey instrument was amended for the second pilot study by re-wording the items that loaded with a corrected item-total correlation $< .3$ in the first pilot study (see Appendixs G, H, I, K & L for the re-worded items). This was done to facilitate the item understanding for second language English speakers given that a large proportion of the actual sample was

assumed to have a language other than English as their home language. The one exception was the self-actualisation scale which had produced a particularly poor reliability (Cronbach $\alpha = .442$) in the first pilot study. It was thus decided to replace this scale with Jones and Crandal's (1986) Short Index of Self-Actualisation (see Appendix J).

The second pilot study comprised a convenience sample of 228 third-year human resource management students at CPUT who were requested to complete the revised survey. The reliability results are presented in Table 2 and 3 below:

Table 3
Summary of the reliability results obtained in pilot study two

Scale	No. of items	Initial Cronbach α	Removed items*	Final no. of items	Final Cronbach α
Self-esteem	25	.793	4, 8, 9, 10, 11, 14, 15, 20, 22, 25	15	.801
Purpose in life	11	.833	34	10	.838
Locus of control	5	.422	All items < .30		
Self-actualisation	15	.414	All items < .30		
Ideological commitment	8	.620	57, 61	6	.663
Ego strength	26	.769	65, 67, 69, 74, 77, 80, 83, 85, 86, 87, 88, 89	14	.794

* Items removed with corrected item-total correlations < .30

The reliability of the scales in the second pilot study was similar to the first pilot study. Again, after removing items with poor corrected item-total correlations the Cronbach Alpha scores for self-esteem ($\alpha = .793$), purpose-in-life ($\alpha = .833$), and ego-strength ($\alpha = .769$) were respectable or very good, though the ideological commitment score ($\alpha = .620$) was acceptable. However, the scores for the locus of control ($\alpha = .422$) and self-actualisation ($\alpha = .414$) measures were again unacceptable.

The reliability analyses for the self-esteem scale had resulted in the removal of ten of the original 25 items with corrected item-total correlations < .3, whereas 12 of the 26 items were removed from the ego strength scale. This brought to question whether the content validity of the remaining scales was maintained. However, this was not of concern given that a key aim of the pilot studies, based on the focus-group review and subject matter expert review, was to reduce the length of the instrument (see Section 4.7.1.2). There were also concerns regarding the possible cultural bias of the instrument (Stuart-Hamilton, 2007) and it could

thus be argued that the scales that emerged reflected the nature of self-esteem and ego strength in the South African context.

For all four of the reliable scales Bartlett’s test of sphericity was again significant ($p < .000$) indicating homogeneity of variances with KMO’s between .656 and .796, indicating that the four scales were suitable for factor analysis. Use was made of principal components analysis as a form of exploratory factor analysis to reduce the number of items in the scales and identify underlying components with an eigenvalue > 1 that would determine the maximum amount of variance in the respective scales (Bryant & Yarnold, 1995; Sweet & Grace-Martin, 2012).

Table 4
Summary of the principal components analysis results obtained in pilot study two

Scale	KMO value	Bartlett’s test of sphericity	No of factors: eigenvalue > 1	Variance explained	Load on a single factor
Self-esteem	.796	.000	F1:	26.91	Yes
			F2:	9.58	
			F3:	8.24	
			F4:	7.71	
			F5:	6.74	
			Total:	59.19	
Purpose in life	.880	.000	F1:	42.22	Yes
			F2:	11.74	
			Total:	53.96	
Ideological commitment	.656	.000	F1:	38.16	Yes
			F2:	21.83	
			Total:	59.98	
Ego strength	.777	.000	F1:	27.87	Yes
			F2:	10.60	
			F3:	7.97	
			F4:	7.22	
			Total:	53.66	

The principal components analysis of the self-esteem scale identified five components with an eigenvalue > 1 , which collectively explained 59.16% of the variance. In the item responses. The items comprising the five components suggest that the individuals’ self-image, self-confidence, confidence in dealing with life challenges, emotional liability, and feelings about the self.

Two components were identified in the purpose-in-life scale that collectively explained 53.96% of the scale’s variance. The items loading on C1 related to how the respondent feels

about the purpose of their daily activities, whilst the items related to C2 indicate the respondents' broader purpose in life.

The principal components analysis for the ideological commitment scale also generated two components with the C1 questions related to the respondent having considered their ideological commitments, whereas the two C2 items relate to having chosen a faith and lifestyle.

Finally, the principal components analysis of the ego strength case generated five factors that collectively explained 53.66% of the scale. The items in F1 relate to impulsivity, F2 stability of mood, F3 perseverance, and F4 delay in gratification.

It was decided to use the items in the four scales above for the instrument in the final study. This was given that the components identified through the principal components analysis generally explained a greater amount of the variance in scores as had been the case in the initial pilot study (Self-esteem 59.19% vs 60.81%; Purpose in life 53.96% vs 40.06%; Ideological commitment 59.98% vs 42.04% and Ego strength 53.66% vs 37.82%). The results of the second pilot study were also likely to be more reliable given that, according to Comrey and Lee (1992) the sample size $N = 228$ could be regarded as satisfactory, whereas the $N = 150$ for the first pilot study would be regarded as poor.

Even though a number of the items of the locus of control scale had been re-worded after the first pilot study, the scale's reliability remained low [see Appendix H]. The self-actualisation scale was replaced with Jones and Crandal's (1986) Short Index of Self-Actualisation presented a similar challenge. It was thus decided to perform a third pilot study with new scales for locus of control and self-actualisation.

3.3 Pilot study three

The sample for the third pilot study comprised 219 respondents drawn from the same population used for pilot study two above who were administered the two new scales measuring locus of control and self-actualisation, respectively.

The locus of control scale was replaced with Levenson's IPC Scale (Levenson, 1972). The IPC Scale examines three dimensions of LOC, namely internality (internal LOC), externality (external LOC) and chance. There are several advantages associated with this scale including

that it was designed as a Likert-type scale, the wording is believed to be less ambiguous than other LOC scales, and it has been reported to produce low social desirability bias (Halpart & Hill, 2011).

Replacing the self-actualisation scale was more challenging as the scales assessing this construct are limited. For this reason, a scale was self-developed by converting the 36 indicators of self-actualisation identified in Leclerc, Lefrançois, Dube, Hebert and Gaulin's (1998) self-actualisation content analysis were converted into questions [see Appendix I].

The outcomes of the reliability and validity analyses of these two scales are summarised in Table 5 and 6 below. Both scales demonstrated adequate reliability and validity after shortening the IPC from 27 to 14 items and the self-actualisation scale to 13 items:

Table 5
Summary of the reliability scores obtained in pilot study three

Scale	No. of items	Initial Cronbach α	Removed items*	Final Cronbach α
Locus of control	27	.730	1-5, 7, 9, 12, 13, 17, 21, 23, 26, 27	.791
Self-actualisation	36	.740	29, 30-32, 34-41, 43, 44, 48-50, 52, 53, 56-58, 60	.740

* Items removed with corrected item-total correlations < .30

The new locus of control scale displayed adequate reliability with a Cronbach α score of .730 which improved to .791 when the 14 items with corrected item-total correlations <.3 were removed which resulted in a final scale of 13 items used in the study. The self-actualisation scales initial 36 items generated a Cronbach α of .74. However, it was possible to remove 23 of the original items whilst still maintaining a Cronbach α of 7.40 with the advantage that the scale was significantly shortened and would contribute to respondent satisfaction.

Table 6
Summary of the validity results obtained in pilot study three

Scale	KMO value	Bartlett's test of sphericity	No of factors: eigenvalue > 1	Variance explained	Load single factor
Locus of control	.773	.000	F1: 3.78 F2: 2.07 F3: 1.01 Total	29.07% 15.82% 7.79% 52.76	Yes
Self-actualisation	.744	.000	F1: 3.48 F2: 1.76 F3: 1.39 F4: 1.01 Total	26.74 13.52 10.68 7.79 58.73	Yes

Both scales scored significantly on Bartlett’s test of sphericity ($p.000$) indicating homogeneity of variances and that they were suitable for factor analysis with KMO’s of .773 and .744 respectively.

The three components within the LOC scale explained 52.76% of the variance and aligned with those identified in Levenson’s original IPC Scale (Levenson, 1972) in that the F1 items related to internality, the F2 items related to externality, and the F3 items related to chance. Four components identified in the self-actualisation scale explained 58.73% of the variance in the participant’s item scores with the first three components making relatively sound theoretical sense in that the F1 items related to the meaningfulness of life, F2 items to the respondent liking themselves, whereas the F3 items were related to emotional awareness and control. In hindsight, the main item relating to F4 (Q. 6 Many things that have happened to me are unfair) could have been excluded as this indicated a lack of self-actualisation. Particular note was taken of this issue when analysing the results for the study.

4. Scale items and their development

4.1 Purpose-in-life scale (Used in pilot study 1 and 2)

Instructions: For each of the following statements, place a cross (x) in the box that is most true for you. Note that the boxes always extend from one extreme feeling to its opposite kind of feeling.

	Completely bored					Exuberant & enthusiastic
26. I am usually:	1	2	3	4	5	6
	Completely routine					Completely exciting
27. Life to me seems:	1	2	3	4	5	6
	No goals or aims at all					Very clear goals
28. In life I have:	1	2	3	4	5	6
	Utterly meaningless & without purpose					Very purposeful & meaningful
29. My personal existence is:	1	2	3	4	5	6
	Exactly the same					Constantly new & exciting
30. Every day is:	1	2	3	4	5	6
	Made no progress whatever					Progressed to complete fulfilment
31. In achieving life goals I have:	1	2	3	4	5	6
	Empty, filled only with despair					Running over with exciting good things

32. My life is:	1	2	3	4	5	6
-----------------	---	---	---	---	---	---

Completely
worthless

Completely
worthwhile

33. If I should die today, I would feel that my life has been:	1	2	3	4	5	6
--	---	---	---	---	---	---

Very irresponsible
person

Very responsible
person

34. I am a:	1	2	3	4	5	6
-------------	---	---	---	---	---	---

Thought of _____ Never given it
it often _____ a second
thought

35. With regard to suicide, I have:	1	2	3	4	5	6
-------------------------------------	---	---	---	---	---	---

A painful and boring
experience

A source of pleasure
& satisfaction

36. Facing my daily tasks is:	1	2	3	4	5	6
-------------------------------	---	---	---	---	---	---

No mission or
purpose in life

Clear-cut goals & a
satisfying life purpose

37. I have discovered:	1	2	3	4	5	6
------------------------	---	---	---	---	---	---

4.2 Internal locus of control scale (Used in pilot study 1 and 2)

Instructions: Place a cross (x) in the box next to each statement which represents how true it is for you i.e. how much you agree or disagree with it. If a statement has more than one part, please indicate your reaction to the statement as a whole.

	Completely disagree	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Completely agree
38. Becoming a success is a matter of hard work. Lucky breaks have little or nothing to do with it.	1	2	3	4	5	6
39. When I make plans, I am almost certain that I can make them work.	1	2	3	4	5	6
40. There is a direct connection between how hard I study and the grades I get.	1	2	3	4	5	6
41. It is impossible for me to believe that chance or luck plays an important role	1	2	3	4	5	6
42. What happens to me is my own doing	1	2	3	4	5	6

4.3 Self-actualisation scale (Used in pilot study 1 and 2)

4.3.1 Pilot study 1:

The Self Actualization Scale (SAS - six, six-point items taken from the Personal Orientation Inventory - Shostrom, 1963)

Instructions: Place a cross (x) in the box next to each statement which represents how true it is for you i.e. how much you agree or disagree with it. If a statement has more than one part, please indicate your reaction to the statement as a whole.

	Completely disagree	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Completely agree
43. I have had ecstatic experiences.	1	2	3	4	5	6
44. It is important for me how I live in the here and now.	1	2	3	4	5	6
45. I have had an experience where life seemed just perfect.	1	2	3	4	5	6
46. For me, work and play are the same.	1	2	3	4	5	6
47. A person can completely change his or her essential nature.	1	2	3	4	5	6
48. I have had moments of intense happiness when I felt like I was experiencing a kind of ecstasy or bliss.	1	2	3	4	5	6

4.3.2 Pilot study 2:

<i>Item</i>
(1) I do not feel ashamed of any of my emotions.
(2) I feel I must do what others expect me to do.
(3) I believe that people are essentially good and can be trusted.
(4) I feel free to be angry at those I love.
(5) It is always necessary that others approve of what I do.
(6) I don't accept my own weaknesses.
(7) I can like people without having to approve of them.
(8) I fear failure.
(9) I avoid attempts to analyze and simplify complex domains.
(10) It is better to be yourself than to be popular.
(11) I have no mission in life to which I feel especially dedicated.
(12) I can express my feelings even when they may result in undesirable consequences.
(13) I do not feel responsible to help anybody.
(14) I am bothered by fears of being inadequate.
(15) I am loved because I give love.
<i>Note.</i> Items that load on a factor are underlined.

↳

(Jones & Crandall 1986)

Pilot study 3: Newly developed self-actualisation scale

The scale used in the third pilot study was developed from an article by Leclerc, Lefrangois, Dube, Hebert and Gaulin (1998) comprising a content validation of the self-actualisation concept that identified 36 indicators. The researcher developed the questions as follows:

Hypothesised Factor 1: Openness to experience

Self-actualising individuals: (*from the authors – rest based on literature)

A1. Are aware of their feelings.

Q. I am aware of my emotions when making decisions.

A2. Have a realistic perception of themselves.

Q. I have both positive and negative characteristics.

A3. Trust in their own organism.

Q. The opinions of my friends and family influence my decisions.

A4. Are capable of insight.

Q. I often think about my strengths and weaknesses.

A5. *Are able to accept contradictory feelings.

Q. I can feel both happy and sad at the same time.

A6. *Are open to change.

Q. I find it difficult to deal with changing circumstances.

A7. Are aware of their strengths and weaknesses.

Q. I can easily draw up a list of my strengths and weaknesses.

A8. Are capable of empathy.

Q. I can easily imagine how someone else feels.

A9. Are capable of not focusing on themselves.

Q. I often think about the needs and feelings of others.

A10. Live in the present (the here and now).

Q. My dreams and goals are more important than my life right now.

A11. *Have a positive perception of human life. (Same as Q.13)

Q. I believe that most people are basically good.

A12. Accept themselves as they are.

Q. There are many things that I would like to change about myself.

A13. Have a positive perception of the human organism.

Q. I believe most people will take advantage of you if they get a chance.

A14. Are capable of spontaneous reactions.

Q. I often act spontaneously.

A15. Are capable of intimate contact.

Q. My relationships with others are deep and meaningful.

A16. Give a meaning to life.

Q. My life has a great deal of meaning.

A17. Are capable of commitment.

A17.1 Q. I am faithful to my partner.

A17.2 Q. I am committed to my family.

A17.3 Q. I am committed to my community.

Hypothesised Factor 2: Reference to self

B1. Consider themselves responsible for their own life.

Q. I am responsible for most things that happen in my life.

B2. *(Take) Accept responsibility for their actions.

Q. Many choices that I make are out of my control.

B3. *Accept the consequences of their choices.

Q. Many things that have happened to me are unfair.

B4. Act according to their own convictions and values.

Q. I often do things that are against my beliefs and values.

B5. Are able to resist undue social pressure.

Q. I am easily persuaded by my friends.

B6. Feel free to express their opinions.

Q. I can easily say what I think and feel.

B7. *Enjoy thinking for themselves.

B8. *Behave in a congruent authentic way.

B9. *Have a well-developed sense of ethics.

I often think about whether my actions are moral.

B10. Are not paralyzed by the judgment of others.

Q. I find it difficult to do things that my friends and family do not agree with.

B11. Feel free to express their emotions.

Q. I can easily say how I feel.

B12. Use personal criteria to evaluate themselves.

Q. My friends and family influence how I see myself.

B13. *Are able to get outside established frameworks.

Q. I do my own thing.

B14. *Have a positive self-esteem. (Have self-esteem)

Q. I like who I am.

B15. Give meaning to their life.

Q. There are many things in my life that have meaning.

Hypothesised Factor 3: Openness to experience and reference to self

C1. *Maintain contact with themselves and the other person when communicating.

C2. Can cope with failure.

Q. I give up easily when I am I not successful.

C3. Are capable of establishing meaningful relationships.

Q. I have a number of meaningful relationships in my life.

C4. *Look for relationships based on mutual respect.

C4.1 Q. I am respected by my friends and family.

C4.2 Q. I respect my friends and family.

The scale developed from the article and piloted in pilot study three:

	1 - Completely unlike me	2 - A lot unlike me	3 - A bit unlike me	4 - A bit like me	5 - A lot like me	6 - Completely like me
1. I am aware of my emotions when making decisions	1	2	3	4	5	6
2. I am responsible for most things that happen in my life.	1	2	3	4	5	6
3. I have both positive and negative characteristics.	1	2	3	4	5	6
4. Many choices that I make are out of my control.	1	2	3	4	5	6
5. The opinions of my friends and family influence my decisions.	1	2	3	4	5	6
6. Many things that have happened to me are unfair.	1	2	3	4	5	6
7. I give up easily when I am I not successful.	1	2	3	4	5	6
8. I often think about my strengths and weaknesses.	1	2	3	4	5	6
9. I often do things that are against my beliefs and values.	1	2	3	4	5	6
10. I have a number of meaningful relationships in my life.	1	2	3	4	5	6
11. I am committed to my romantic partner.	1	2	3	4	5	6
12. I can feel both happy and sad at the same time.	1	2	3	4	5	6
13. I am easily persuaded by my friends.	1	2	3	4	5	6
14. I find it difficult to deal with changing circumstances.	1	2	3	4	5	6
15. I can easily say what I think and feel.	1	2	3	4	5	6
16. I can easily draw up a list of my strengths and weaknesses.	1	2	3	4	5	6
17. I often think about whether my actions are moral.	1	2	3	4	5	6
18. I am committed to my family.	1	2	3	4	5	6
19. I can easily imagine how someone else feels.	1	2	3	4	5	6
20. I am respected by my friends and family.	1	2	3	4	5	6
21. I find it difficult to do things that my friends and family do not agree with.	1	2	3	4	5	6
22. I often think about the needs and feelings of others.	1	2	3	4	5	6
23. My dreams and goals are more important than my life right now.	1	2	3	4	5	6
24. I can easily say and show how I feel.	1	2	3	4	5	6
25. I believe that most people are basically good.	1	2	3	4	5	6
26. My friends and family influence how I see myself.	1	2	3	4	5	6
27. There are many things that I would like to change about myself.	1	2	3	4	5	6
28. I do my own thing.	1	2	3	4	5	6
29. I believe most people will take advantage of you if they get a chance.	1	2	3	4	5	6
30. I respect my friends and family.	1	2	3	4	5	6
31. I am committed to my community.	1	2	3	4	5	6
32. I like who I am.	1	2	3	4	5	6
33. I often act spontaneously.	1	2	3	4	5	6
34. My relationships with others are deep and meaningful.	1	2	3	4	5	6
35. There are many things in my life that have meaning.	1	2	3	4	5	6
36. My life has a great deal of meaning.	1	2	3	4	5	6

4.4 Self-esteem scale (Used in pilot study 1 and 2)

4.4.1 Pilot study 1:

Instructions: For each of the following statements, place a cross (x) in the box that would be most true for you. Please judge each statement in terms how much the statement describes your present feelings/actions/situation:

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

Instructions: For each of the following statements, place a cross (x) in the box that would be most true for you. Please judge each statement in terms how much the statement describes your present feelings/actions/situation:

4.4.2 Pilot study 2:

	Completely unlike me	A lot unlike me	A bit unlike me	A bit like me	A lot like me	Completely like me
(The agreeable continuum made more sense when reading the questions.)	Completely disagree	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Completely agree
1. In general things usually don't bother me. I worry about little things a lot. (Reverse score)	1	2	3	4	5	6
2. I find it very hard to talk in front of a group.	1	2	3	4	5	6
3. There are lots of things about myself I'd change if I could. I like most things about myself.	1	2	3	4	5	6
4. I can make up my mind without too much trouble.	1	2	3	4	5	6
5. I'm a lot of fun to be with. Other people enjoy being with me.	1	2	3	4	5	6
6. I get upset easily at home. I get upset easily.	1	2	3	4	5	6
7. It takes me a long time to get used to anything new.	1	2	3	4	5	6
8. I'm popular with persons my own age. I am a popular person.	1	2	3	4	5	6
9. My family usually considers my feelings.	1	2	3	4	5	6
10. I give in very easily. I often do what others want.	1	2	3	4	5	6
11. My family expects too much of me. I feel overcome by the hopes that my family has for me.	1	2	3	4	5	6
12. It's pretty tough to be me.	1	2	3	4	5	6
13. Things are all mixed up in my life.	1	2	3	4	5	6
14. People usually follow my ideas. I find it easy to convince others.	1	2	3	4	5	6
15. I have a low opinion of myself.	1	2	3	4	5	6
16. While growing up there were many times I wanted to leave home. I was happy growing up in my home.	1	2	3	4	5	6
17. I often feel upset with my work.	1	2	3	4	5	6
18. I'm not as nice looking as most people.	1	2	3	4	5	6
19. If I have something to say, I usually say it.	1	2	3	4	5	6
20. My family understands me.	1	2	3	4	5	6
21. Most people are better liked than I am.	1	2	3	4	5	6
22. I feel a lot of pressure from my family to be successful. My family places a lot of pressure on me to be successful.	1	2	3	4	5	6
23. I often get discouraged with what I am doing. I give up easily when I find a task difficult	1	2	3	4	5	6
24. I often wish I were someone else.	1	2	3	4	5	6
25. I can't be depended on. Others can rely on me.	1	2	3	4	5	6

Reversed items - Q1, 2, 6, 7, 10, 11, 12, 13, 15, 17, 18, 21, 22, 23, 24

* Items reworded for pilot study 2

* Items included in final scale

4.5 Ideological commitment scale (Used in pilot study 1 and 2)

Instructions: Place a cross (x) in the box next to each statement which represents how true it is for you i.e. how much you agree or disagree with it. If a statement has more than one part, please indicate your reaction to the statement as a whole.

	Completely disagree	Strongly disagree	Somewhat disagree	Somewhat agree	Strongly agree	Completely agree
49. Politics is something that I can never be too sure about because things change so fast. But I do think it's important to know what I can politically stand for and believe in.	1	2	3	4	5	6
50. A person's faith is unique to each individual. I've considered and reconsidered it myself and know what I can believe.	1	2	3	4	5	6
51. After considerable thought I've developed my own individual viewpoint of what is for me an ideal "life style" and don't believe anyone will be likely to change my perspective.	1	2	3	4	5	6
52. It took me a while to figure it out, but now I really know what I want for a career.	1	2	3	4	5	6
53. I've thought my political beliefs through and realize I can agree with some and not other aspects of what my parents believe	1	2	3	4	5	6
54. I've gone through a period of serious questioning about faith and can now say I understand what I believe in as an individual.	1	2	3	4	5	6
55. It took me a long time to decide but now I know for sure what direction to move in for a career.	1	2	3	4	5	6
56. After a lot of self-examination I have established a very definite view on what my own life style will be.	1	2	3	4	5	6

4.6 Ego strength scale (Used in pilot study 1 and 2)

4.6.1 Pilot study one and two:

Instructions: The statements below relate to how you see yourself. Please respond to them as if you were describing yourself to yourself. Read each statement carefully; Place a cross (x) in the box that best describes you.

	Completely false	Mainly false	Somewhat (a bit) false	Somewhat (a bit) true	Mainly true	Completely true
57. Most people who know me consider me to be a dependable person.	1	2	3	4	5	6
58. Self-control is no problem for me.	1	2	3	4	5	6
59. I tend to do things on the spur of the moment.	1	2	3	4	5	6
60. I find it hard to wait for something I want.	1	2	3	4	5	6
61. I can be depended on to finish what I start.	1	2	3	4	5	6
62. I get more impatient than most people when I have to wait for a long stop light.	1	2	3	4	5	6
63. I wish I were less impulsive.	1	2	3	4	5	6
64. When confronted with a difficult situation, I give up more easily than most people.	1	2	3	4	5	6
65. I tend to make quick judgments of people.	1	2	3	4	5	6
66. I enjoy difficult and challenging situations.	1	2	3	4	5	6

67. I often say and do things without stopping to think.	1	2	3	4	5	6
68. I tend to be moody.	1	2	3	4	5	6
69. People know they can depend on me in a crisis.	1	2	3	4	5	6
70. I have trouble resisting temptation.	1	2	3	4	5	6
71. I prefer to buy something right away rather than save my money for something better later on.	1	2	3	4	5	6
72. I am bothered by my lack of self-control.	1	2	3	4	5	6
73. I tend to jump to a second task before I have completed the first one.	1	2	3	4	5	6
74. Most people who know me consider me to be impatient.	1	2	3	4	5	6
75. My emotions rarely get out of hand.	1	2	3	4	5	6
76. I have frequent ups and downs in mood.	1	2	3	4	5	6
77. I have a lot of will power.	1	2	3	4	5	6
78. I am able to concentrate better than most people under distracting conditions.	1	2	3	4	5	6
79. My friends consider me to be hot-headed.	1	2	3	4	5	6
80. I can bear physical discomfort better than most.	1	2	3	4	5	6
81. When I have a job to do, I am not easily distracted.	1	2	3	4	5	6
82. I do not go to pieces under stress as easily as most people.	1	2	3	4	5	6

Reversed items - Q.67, 68, 70, 71, 72 73, 75, 76, 78, 79, 81, 82, 84, 87

Appendix H: Development of the LSM scale for the self-administered survey (Study one)

Indicate which of the following items you had in the household that you grew up in. Place a tick (✓) next to the items that were present:

- Tv set	
- Swimming pool;	
- DVD player/Blue Ray Player	
- Pay TV (M-Net/DStv/Top TV) subscription	
- Air conditioner	
- Computer (Desktop/ Laptop)	
- Vacuum cleaner/floor polisher	
- Dishwashing machine	
- Washing machine	
- Tumble dryer	
- Home telephone (landline)	
- Deep freezer –free standing	
- Refrigerator or combined fridge/freezer	
- Electric stove	
- Microwave oven	
- Built-in kitchen sink	
- Home security service	
- 3 or more cell phones in household	
- 2 cell phones in household	
- Home theatre system	
- A motor vehicle	

When I grew up I had the following amenities in my home or on the plot: Place a tick (✓) next to the items that were present

- Tap water in house/on plot	
- Hot running water from a geyser	
- Flush toilet in/outside house	

Place a tick (✓) next to the statements that are true about the house which you grew up in.

It was a brick house, cluster house or town house	
It was in a metropolitan (city) area	
It was in a rural area (not in Gauteng or Western Cape)	
There were no radios, or only one radio (excluding car radios) in my household	
There was no domestic workers or paid household helpers in the household (incl. both live-in & part time domestics and gardeners)	

Modified scale:

Standard of Living

Indicate which of the following were present in the household that you grew up in i.e. the household that you lived in for the majority of your life up to matric.

Place a tick (✓) next to the items that were present:

- Tap water in house or on your property	
- Hot running water from a geyser	
- Flush toilet in house or outside on the property	
- TV set	
- Microwave oven	
- Computer (Desktop/ Laptop)	
- TV set	
- Electric stove	
- A motor vehicle	
- Vacuum cleaner/floor polisher	
- Live-in, full-time or part-time domestic worker, helper or gardener	

How many cell phones were there in the household that you grew up in?	
---	--

- Did you grow up in a rural area such as a farm or traditional tribal village, outside Gauteng or the Western Cape	Yes	No
---	-----	----

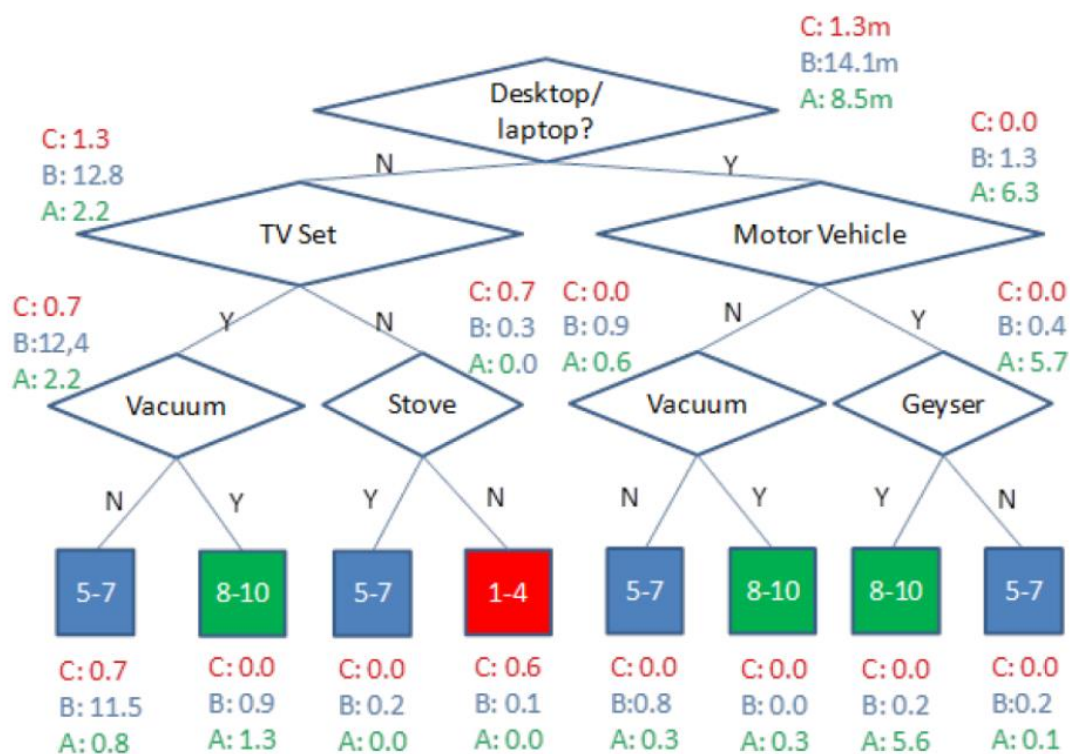


Figure: Full decision tree to three levels and six items (Source: Millward Brown & TNS South Africa, 2014)

Desktop/laptop	Motor vehicle	Hot running water/geyser	8 to 10	A
		No hot running water/geyser	5 to 7	B
No desktop/laptop	No motor vehicle	Vacuum	8 to 10	A
		No vacuum	5 to 7	B
No desktop/laptop	TV	Vacuum	8 to 10	A
	No TV	No vacuum	5 to 7	B
		Electric stove	5 to 7	B
		No electric stove	1 to 4	C

Figure: Decision diagram for field use horizontal format (Source: Millward Brown & TNS South Africa, 2014)

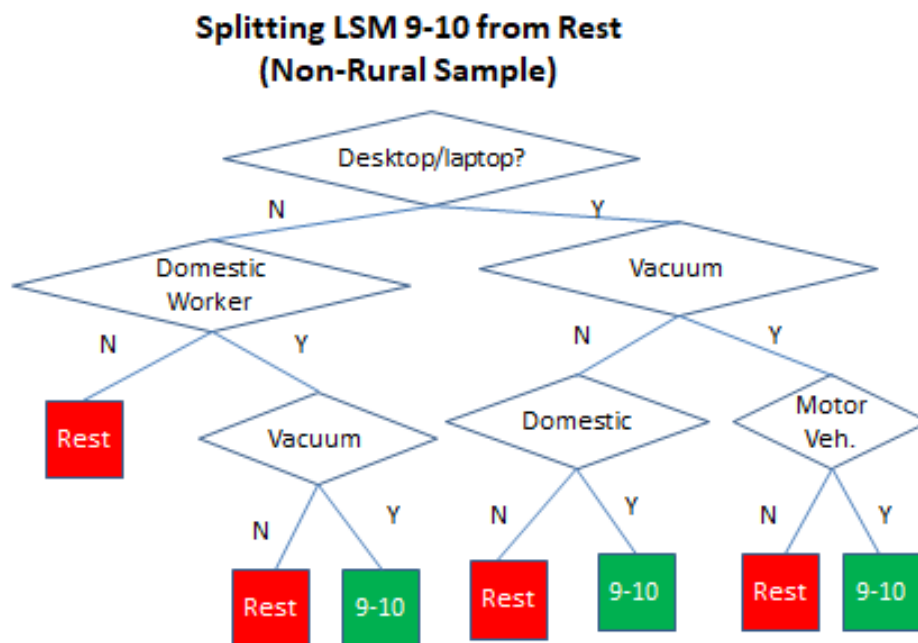


Figure: Isolating LSM C (or Not) (Source: du Plessis, 2015)

Appendix I: UCT ethics clearances

UNIVERSITY OF CAPE TOWN



Faculty of Commerce Ethics in Research Committee

Courier: Room 2.26 Leslie Commerce Building Upper Campus University of Cape Town
Post: University of Cape Town • Private Bag • Rondebosch 7701
Email: Harold.Kincaid@uct.ac.za
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Fax No.: +27 21 650 4396

UCT/COM/264/2013

26 August 2013

Jerome Kiley
University of Cape Town
jerome.kiley@uct.ac.za

Dear Researcher

Project title: Exploring the relationship of identity capital with employability

This letter serves to confirm that the project entitled, "**Exploring the relationship of identity capital with employability**", as described in your final submitted protocol 2013, has been approved. You may proceed with the research.

Please note that if you make any substantial change in your research procedure that could affect the experiences of the participants, you must submit a revised protocol to the Committee for approval.

Best wishes for great success with your research.

Regards,

Harold Kincaid

Professor Harold Kincaid
Commerce Faculty Ethics in Research Committee

"OUR MISSION is to be outstanding teaching and research university,
educating for life and addressing the challenges facing our society."



Faculty of Commerce

Ethics in Research Committee

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UCT/COM/307/2013

11th December 2013

Jerome Kiley
University of Cape Town
jerome.kiley@uct.ac.za

Dear Researcher,

Project title: Exploring the relationship of identity capital with employability (Phase 3 and 4 and additional samples)

This letter serves to confirm that the project entitled, "**Exploring the relationship of identity capital with employability (Phase 3 and 4 and additional samples)**" as described in your final submitted protocol 2013, has been approved. You may proceed with the research.

Please note that if you make any substantial change in your research procedure that could affect the experiences of the participants, you must submit a revised protocol to the Committee for approval.

Best wishes for great success with your research.

Regards,

Signature Removed

Professor Harold Kincaid
Commerce Faculty Ethics in Research Committee

Appendix J:

Focus-group review: Self-administered survey (Study 1 Time 1)

Summary of responses from focus-group review

Group 1:

Problems:

- Q.18 was offensive
- Language: Some questions had high level of language e.g. Q.48 bliss & ecstasy
- Questionnaire was too long
- Some questions required in-depth thought before answering
- Some questions too personal
- Repetition: Q.58 and 72 on self-control; 52 & 55 on career and some relating to politics

Positives:

- In general the standard of the questionnaire was good;
- The questions were relevant to the field or title of the research

Group 2:

- Rating scale has too many options. Maybe 1-3 or 1-5
- Tool long (too many questions)
- Very personal (regarding qualifications, or some trigger questions like the suicide one)
- Some statements were a bit too long- maybe should be briefly phrased
- We also felt that some statements were repetitive
- We felt that p.6 is structured well – not a lot of content and very clear
- The instructions were very clear which was cool
- We also felt that the questions were thought provoking in a positive way
- The letter of consent we felt was 100%, it explained everything clearly and gave us the freedom to decide.
- We also felt that if it was anonymous people would feel free to answer more honestly

Group 3:

- Statement of confidentiality to be written on top of the questionnaire, not just in the consent form.
- The MAPS questionnaire makes people feel exposed. Found it uncomfortable to answer those questions.
- On the questions about the family, consider putting a statement on the top to the effect of explaining why that information is needed. The information sounds a bit unethical.
- Re-phrase the question special talents. It's too guided.
- Consider the wording of questions 52 and 55.
- Consider putting a table for respondents to tick on the questions on how you pay for your studies.

Group 4:

- The questionnaire is quite long.
- Some questions are depressing.

- There are some questions that aren't that easy to answer, some questions left us feeling a bit uncomfortable and indecisive.
- The rating scale is too large, it's confusing.
- The language was simple enough to understand.
- For the reason that the questionnaire is about employability, perhaps previous employment should be taken into account
- The questionnaire is about identity but doesn't ask about strengths, weaknesses or areas for improvement
- Questionnaire should include spaces for comments

Group 5:

- Questions are quite challenging and personal. It made us reflect before answering. Opportunity to review personality and ability.
- The selection box (rating scale) was a bit tricky and should be constructed a bit more easier.
- Questionnaire was depressing (some questions asked). A bit uncomfortable with some of the questions.
- Interesting questions asked (very interesting questionnaire)
- Realisations came from it.
- Get to know yourself better as well as your circumstances.
- Motivate you to change some of these aspects in the questionnaire.
- Overall, results may assist in making generalisation (conclusion) about students and their lifestyles, feelings and circumstances.
- Required honesty.
- Disadvantage: Participants may be dishonest in answering (confidentiality). May result in improper results/conclusion.
- This type of questionnaire shouldn't require personal details (although it is understanding in the given circumstances you may want to follow up).
- People may be more open/honest if the personal details were not required.

Issues mentioned individually (annotated on questionnaires):

- It is not always easy answering questions about yourself considering you've given your personal details.
- "Q.43 I've had ecstatic experiences." – I don't know how to interpret this!
- "Q.59 I tend to do things in the spur of the moment" – spelling mistake
- "Q.70 I have trouble resisting temptations." General temptation?
- Highest level of education – Not sure how to indicate nursing certificates. Only pertains to technology.
- "Q.22 I usually feel as if my family is pushing me." – How? Towards?
- Q.26-37 Like these better than previous grid./Clear, the contrast between opposite feelings, makes distinctions clear and easy to fill in.
- Q.38-56 – Quite clear
- "Q.80 I can bear physical discomfort better than most." - Not very clear.
- "I and my assistant..." – grammatical error x2

- "This does not negate your right to withdraw at any stage as noted above." – Meaning?
- Space to sign?
- Highest level of education – Not really applicable to foreign students because brother in 3rd year journalism in Burkina and it's not a Technicon
- "Q.1 Things usually don't bother me." – A bit vague, which things?
- Q.16 There are many times when I would like to leave home." – Not applicable to me because I am living away from home.
- Move instructions bottom p.6 to top p.7 x 3
- Q.38 'luck breaks' – confusing to me.
- Language barrier for none-English speaker – words such as "lucky breaks, ecstasy, there here and now"
"Purpose" – should explain purpose further. Explanation in class was in detail.
- Positive feedback regarding consent form
- Highest level of education of family – needs further explanation
- "Special talents" – add why passionate about to avoid yes/no.
- Q. 8, 9, 12-18 & 21 - Depending on the persons state of mind taking questions 8, 9, 12-18 & 21 could be very personal especially if they are depressed & not anonymous.
- Q.53 – I never thought about politics
- This is a very personal questionnaire, to add more character & for you to understand where the person is coming from, why not have a section where, the participant can give a summary of him/herself.
- Pay for studies in order – initially I(was a bit confused by this method
- Highest level of education – could be a bit embarrassing to some people
- Q.1 – this statement is a bit vague. What things?
- Q.1-25 – Criteria confusing in relation to certain statements (not specify which)
- I found MAPS questionnaire generally easy to complete.
- Pay for studies – order number sources confusing
- Highest level of education – uncomfortable answering
- P.5 – Instruction "of" – grammatical error
- Q.41, 42, 58 – sounds not good
- Q.46 – in terms of what?
- Q.43 & 48 similar/repeated
- Q.52 & 55 similar/repeated
- Q.59 – "spur"?
- Q.80 – "hot-headed"?
- Suggestion: Consider asking students about their employment history – During & before studying
- Campus activities – include other activities because many students take part in activities in communities & church
- Q.2 – specify size of group
- Q.1-25 – rating scale broad, confuses me
- Q.47 – "essential nature" – not sure what this means
- Q.1-25 – 1-6 too broad, 1-4 simpler
- Q.2 size of group
- Q.47 – should be more specific

- General: These questions are quite challenging. It gives me a significant opportunity to review my abilities and personality.
- The questions were intellectually challenging as well as very personal.
- The questions give me insight about myself.
- Q.1-25 – choices confusing
- Very personal questions and it makes/forces you to think about back to a stage in your life when you experienced specific things.
- It also identifies the way you truly see yourselves
- Use simpler options in terms of which box the individual must select. It is confusing (no indication which was problematic).
- Q.1 – vague – things may bother student in one aspect and not in another
- Questions are a bit personal, but makes one realise a lot. The questionnaire could be very helpful to the participant answering the questions. Take a lot of thought, but well structured. Easy to understand.
- Decide on field of study – too many options to choose from, can be reduced.
- Q.18 – a bit personal.
- Q.54 – touchy topic
- You can also add some questions about how people feel about their course of study and how they feel impacts upon them now.
- Q.18 – question is offensive
- Q.35 – too personal for me, takes me back to point in my life that I don't ever want to return to.
- Q.47 – didn't really understand statement
- Highest level of education – should consider younger siblings to
- Q.35 – too sensitive
- Q.42 – Not clear enough to me
- Q.47 – Not clear
- Q.80 – not clear
- The questionnaire is too long
- The research topic seems quite interesting to me
- Consent form in order as it gives an explanation to the participant what the data collection is all about and what the reason is for the questionnaire
- Q.1-25 Change options to something else as they do not apply to some of the questions.
- Questionnaire extremely lengthy
- Choose field of study – too many options to choose from
- Highest level of education – makes me a bit uncomfortable
- Q.1-25 – scale a bit confusing
- Q.1-25 - Rating scale can be from 1-3 or 1-4
- Q.1-25 – some options are very personal
- Q.26-37 – interesting set of questions
- Q.49, 50, 51 – statements are too long
- Q.57-82 – statements are to the point which is good, however rating scale too long.
- Highest level of education – some people won't feel comfortable answering these questions due to their parents having to drop out and provide for their families.
- Q.1-25 – 6 options are too many, try reducing to 5 and having 3 as the neutral choice.

- Q.26-37 – this part of the questionnaire makes more sense to an individual on where they currently in life and where they are headed.
- The questionnaire is too long and having it done by students might be a problem. As students are lazy and wouldn't take the time to go through such a long questionnaire.
- Highest level of qualification: What about younger sibling – very personal question regarding parent's qualifications.
- Q.1-25 - I would change the ratings by taking 'unlike me' and 'like me' and adding agree in places
- Q.1-25 - The ratings are personally too much and confusing at times for certain questions, some of the questions are very personal and tend to tap into the emotional perspective.
- Q.26-37 - I would change the rating scale to out of 4 instead of 6
- Q.32 - Emotional question in terms of the participant's perspective of the question.
- Q.35 - Emotional question , can trigger past memories
- Q.38-56 – This focusses and touches people's faith and beliefs, which can trigger people to start re-thinking about their values, beliefs etc.
- Q.57-82 – These questions are good, as it gets people to really think about how their emotions, moods etc. affect people and their daily doings.
- The questions are interesting
- Funding: NFAS – spell out, not everyone knows what it means.
- Q.72 – I feel that if I answer this question I am answering a different one as well.
-

Changes to consent form based on focus-group review

Consent form



TITLE OF RESEARCH: Exploring the relationship of identity capital with employability

PURPOSE

Thank you for considering participating in the research study. I will use the data collected in this study in my PhD dissertation. The aim of the study is to identify factors that contribute to the employability of graduates. The study comprises four phases which I am requesting you to participate in by either providing information or by giving me permission to collect data about you. The phases are:

- (i) For you to complete a questionnaire today. This questionnaire examines various attributes that may contribute towards your employability;
- (ii) For me to access data from the CPUT system regarding your academic performance;
- (iii) For me to request your in-service manager to comment on how satisfied he/she is with attributes exhibited by yourself during your in-service period with the organisation; and
- (iv) For you to provide me with information about the type and nature of employment that you have obtained when I contact you approximately nine months after completing your studies.

All information will be kept strictly confidential and used for the purposes of this research only. You will be asked to provide some personal information about yourself today so that I can link each questionnaire response to the data collected in the other phases of this study. Once the data has been recorded all personal references will be removed so that it will not be possible to relate the findings back to you. ~~and my~~ My assistants ~~and I~~ will be the only persons who deal with this and your individual information will not be revealed to anyone outside the study. Please read through this consent form carefully and ask me for clarification if you are unsure about anything. If you sign the consent form, you thereby give permission for your help with my research. The completion of the questionnaires should take approximately 60 minutes of your time.

RISKS AND DISCOMFORTS

Should you feel uncomfortable answering any of the questions you are free not to answer these.

CONFIDENTIALITY

Due to the nature of the study you will need to provide the researchers with some form of identifiable information however, all responses will be confidential and used for the purposes of this research only.

PAYMENT FOR PARTICIPATION IN THIS RESEARCH

~~You will be entered into a lucky draw competition for chocolate bars as well as a R100 airtime voucher after participating in today's round of data collection. You will not receive any compensation for completing the~~

[questionnaire; however you will be given a chocolate on completion of the questionnaire as a small expression of gratitude for your time and effort.](#)

QUESTIONS

If you have any questions about any aspect of your research participation you are invited to ask them now. If you have additional questions later or would like additional information about the study, please contact me (Mr Jerome Kiley) by calling 021 460 9016 or emailing kileyj@cput.ac.za.

CONSENT

This research has been approved by the Commerce Faculty Ethics in Research Committee of the University of Cape Town. By completing the questionnaires today you are consenting to participate in the study. This does not ~~negate~~ limit your right to withdraw at any stage as noted above.

Changes to biographical information and tangible identity capital based on focus-group review



The information requested here is to enable me to complete the later phases of the research:

Name		Surname		Stud no.		
Personal email:				Cell no.		
Home language		Age:		Gender:	Male/Female	
High school:		Located:		Province:		
CPUT course registered for:						
I regard myself as:	Black	Coloured	Indian	White	Other	Prefer not to answer

How are you paying for your studies and supporting yourself while at university?

(If using more than one source use 1 to indicate the main source, 2 the 2nd; 3 the 3rd etc.)

My own funds (e.g. savings/inheritance etc.)	
Part-time employment	
Non-repayable contributions from parents/other family/partner.	
Repayable loan from parents/other family/partner.	
Funds or loans from other family members or acquaintances	
Funds or loans from my employer	
NSFAS bursary/loan	
A bursary or scholarship from the university	
A private bursary or scholarship	
Other: Specify	

How did you decide on your field of study (course)?

(If more than one reason use 1 to indicate the main reason, 2 the 2nd, 3 the 3rd etc.)

I enjoy studying the subject(s)/topic(s).	
I get good grades in subject(s) related to this course.	
I am interested in the content of the course.	
It is the course that I got into at CPUT.	
I need to complete this course to enter a particular profession/occupation.	
I think it will lead to good employment opportunities in general.	
My friend enrolled for the same course	
It will enable me to qualify for another course.	
I had difficulty deciding and it seemed like a reasonable option.	
This course has a high status in my community.	
I was advised that the course would be appropriate for me.	
Other (PLEASE SPECIFY):	

What is the highest level of education that each family member has completed?

	Mother/ Female Guardian	Father/ Male guardian	Older Siblings			
			(1)	(2)	(3)	(4)
No formal schooling						
Some formal schooling						
Matric/Grade 12						
Technical college certificate (FET College/similar)						
National Diploma from a University of technology (Technikon)						
Degree from a traditional University						
Postgraduate degree (Masters/Doctorate)						
I am not sure						
Not applicable						

During your time as a student indicate which activities on campus you have participated in?

(Tick all applicable options).

Faculty/academic societies (e.g., Geog., Psych, etc.)	
Sports teams	
Cultural organisations	
Student governance (e.g., SRC and sub-committees)	
Residence committees	
Tutor/teaching assistant	
Research/laboratory assistant	
Other: Specify:	

In terms of your own views about your strengths and weaknesses, how do you rate yourself in the following areas. Tick the box that best describes your skills in each instance:

	Not very good		In-between			Excellent
Written English	1	2	3	4	5	6
Spoken English	1	2	3	4	5	6
Numeracy skills	1	2	3	4	5	6
Computer literacy	1	2	3	4	5	6
Self-confidence	1	2	3	4	5	6

Some people have a special talent or skill that they try to develop over time. It could be musical, artistic, mechanical, scientific, intellectual, or sport oriented. Do you have any such skill that you have tried to develop?"

Appendix K: Supporting statistical data

1. Missing value patterns for all identity capital items

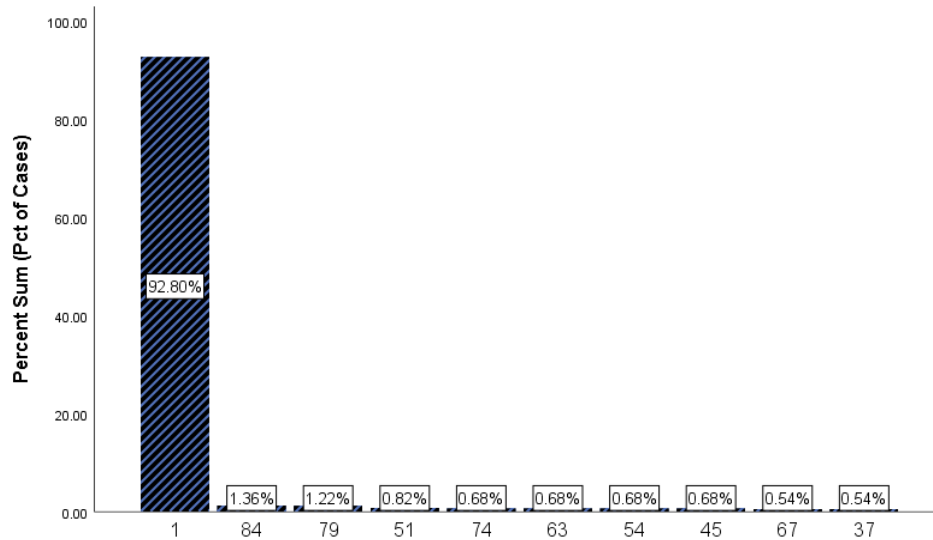


Figure 1. Missing value patterns for all identity capital items

2. Path analysis: Hours worked

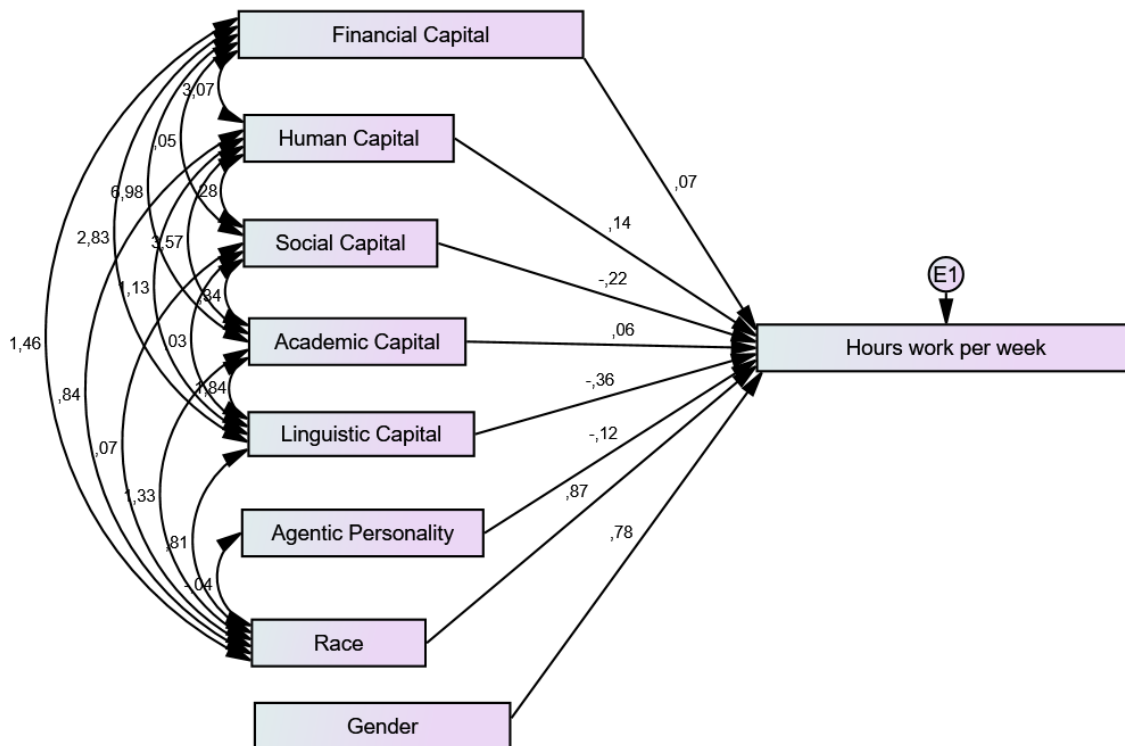


Figure 2. Path analysis for hours worked, $N = 241$

Table 2

Model regression weights for hours worked, $N = 241$

Time gain employment with	Estimate	S.E.	C.R.	P
Financial capital	.067	.176	.382	.702
Human capital	.136	.211	.643	.520
Social capital	-.225	.402	-.560	.575
Academic capital	.058	.128	.455	.649
Linguistic capital	-.356	.254	-1.399	.162
Intangible capital	.058	.128	.455	.649
Gender	.780	.791	.986	.324
Race	.866	.771	1.123	.261

Note. *** $p < .001$

3. Path analysis: Number of interviews

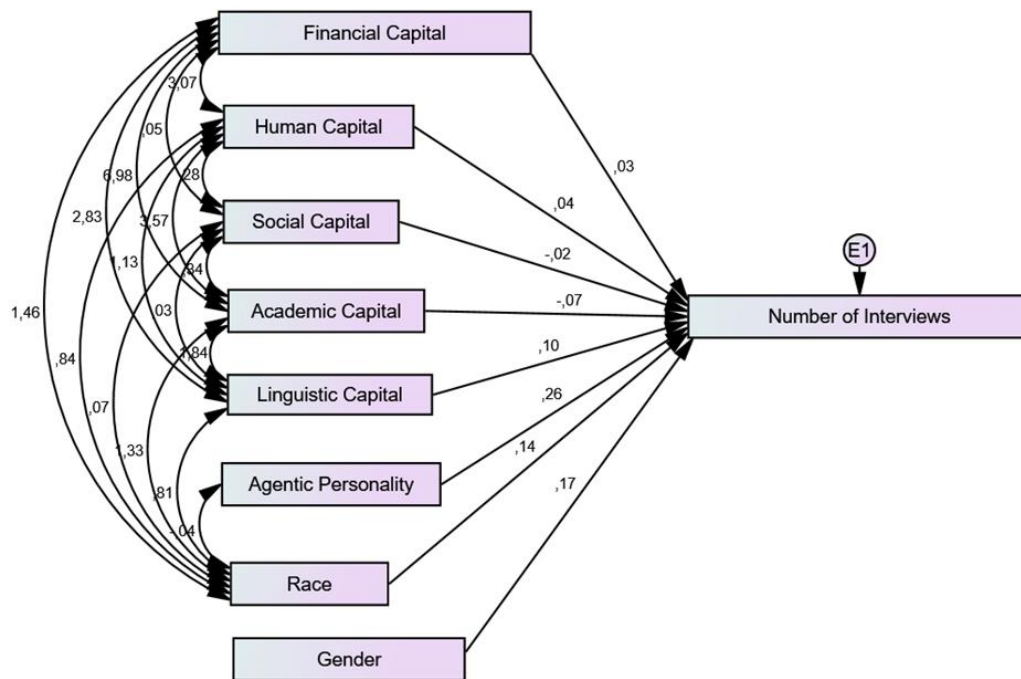


Figure 3. Path analysis for number of interviews, $N = 241$

Table 3

Model regression weights for number of interviews, $N = 241$

Time gain employment with	Estimate	S.E.	C.R.	P
Financial capital	,035	,060	,582	,561
Human capital	,041	,072	,576	,565
Social capital	-,016	,136	-,119	,905
Academic capital	-,067	,043	-1,530	,126
Linguistic capital	,103	,086	1,196	,232
Intangible capital	,258	,259	,994	,320
Gender	,169	,268	,630	,529
Race	,142	,262	,545	,586

Note. *** $p < .001$

4. Path analysis: Studies prepared for employment

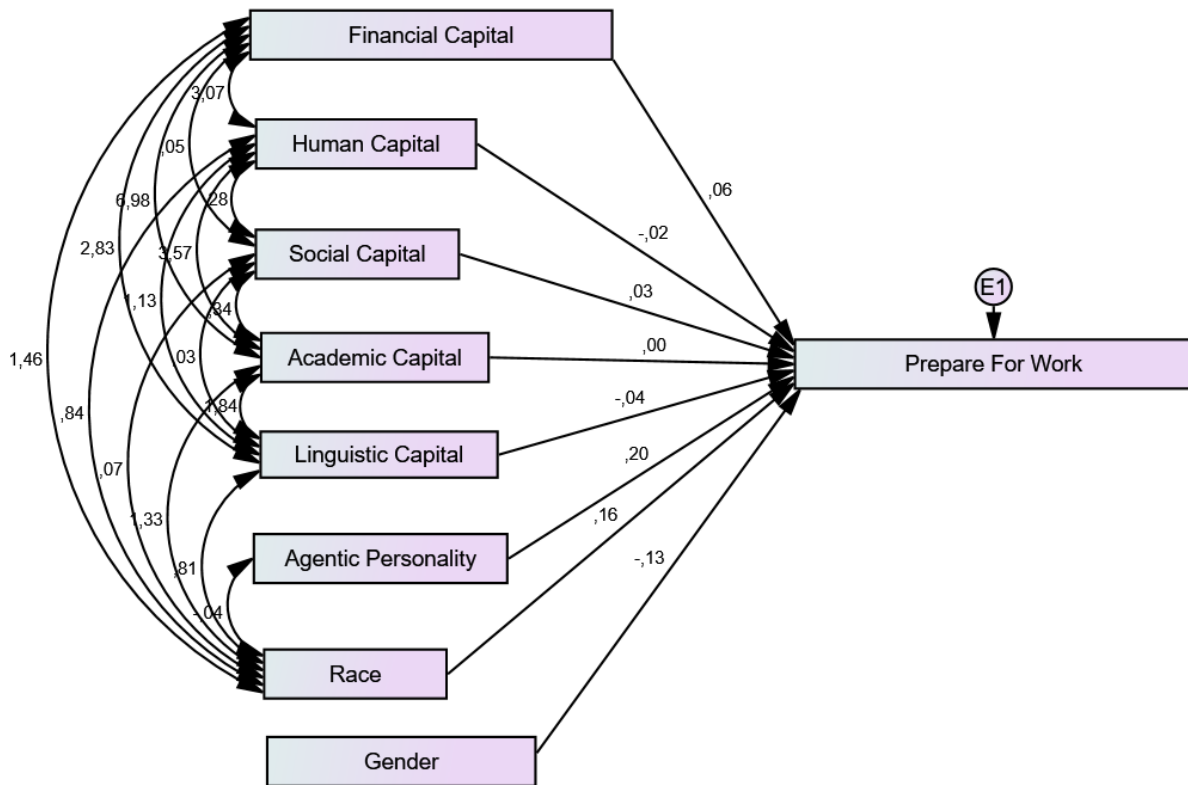


Figure 4. Path analysis for studies prepared for work, $N = 241$

Table 4

Model regression weights for studies prepared for work, $N = 241$

Time gain employment with	Estimate	S.E.	C.R.	P
Financial capital	,063	,044	1,427	,154
Human capital	-,016	,053	-,303	,762
Social capital	,027	,101	,268	,789
Academic capital	,002	,032	,075	,940
Linguistic capital	-,037	,064	-,585	,559
Intangible capital	,198	,192	1,035	,301
Gender	-,127	,199	-,642	,521
Race	,159	,194	,823	,410

Note. *** $p < .001$

Appendix L: Reliability and Validity Statistics for the Agentic Personality Scale (N = 872)

1. Whole scale - combined means

1.1 Reliability - Scale: Combined means

Reliability Statistics – Whole scale:

Combined means		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N
.716	.734	6

Inter-Item Correlation Matrix – Whole scale: combined means

	SE	PIL	LOC	S-A	IC
Purpose In Life	.483				
Locus of control	.338	.241			
Self-Actualisation	.468	.516	.311		
Ideological Commitment	.120	.302	.174	.335	
Ego Strength	.509	.289	.322	.260	.051

Item-Total Statistics – Whole scale: combined means

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's α if Item Deleted
SE	22.8749	4.907	.591	.437	.636
PIL	22.6359	5.068	.542	.365	.651
LOC	22.5640	5.255	.409	.180	.689
S-A	22.4352	5.296	.567	.379	.652
IC	22.3695	5.583	.259	.152	.736
ES	23.3002	4.749	.417	.288	.695

1.2 Validity – Means all scales (Ideological commitment removed)

KMO and Bartlett's Test – Whole scale: Combined means (IC removed)

KMO Measure of Sampling Adequacy.		.754
Bartlett's Test of Sphericity	Approx. Chi-Square	1004.982
	Df	10
	Sig.	.000

Communalities – Whole scale: Combined means

	Initial	Extraction
Self Esteem MEAN	1.000	.661
Purpose In Life MEAN	1.000	.531
LOC MEAN	1.000	.346
Self-Actualisation Mean	1.000	.538
Ego Strength MEAN	1.000	.439

Extraction Method: Principal Component Analysis.

Total Variance Explained – Whole scale: combined means)

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.515	50.304	50.304	2.515	50.304	50.304
2	.862	17.246	67.550			
3	.729	14.587	82.137			
4	.473	9.456	91.593			
5	.420	8.407	100.000			

Extraction Method: Principal Component Analysis.

Correlation Matrix – Whole scale: combined means

	SE	PIL	LOC	S-A	IC
PIL	.483				
LOC	.338	.241			
S-A	.468	.516	.311		
IC	.120	.302	.174	.335	
ES	.509	.289	.322	.260	.051

2. Sub-scale 1: Self-esteem

2.1 Reliability – Self-esteem sub-scale

Reliability Statistics – Self-esteem sub-scale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.734	.735	15

Item-Total Statistics – Self-esteem sub-scale

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q.1em	62.33	81.463	.330	.156	.721
Q.2em	61.63	82.032	.311	.173	.723
Q.3em	60.58	85.837	.296	.197	.724
Q.4em	60.57	87.842	.256	.182	.728
Q.5em	61.58	81.493	.335	.181	.721
Q.6em	61.29	81.420	.391	.211	.715
Q.7em	61.26	79.601	.363	.228	.718
Q.8em	61.06	79.054	.444	.293	.708
Q.9em	60.32	87.233	.172	.084	.736
Q.10em	61.46	81.969	.379	.185	.716
Q.11em	60.72	81.228	.395	.209	.714
Q.12em	61.15	86.463	.187	.099	.735

Q.13em	61.10	80.551	.432	.232	.710
Q.14em	60.55	84.000	.307	.134	.723
Q.15em	60.21	81.459	.440	.223	.710

2.2 Validity – self-esteem scale

2.2.1 Self-esteem (All items)

KMO and Bartlett's Test – Self-esteem sub-scale

KMO Measure of Sampling Adequacy.	.795
Bartlett's Test of Approx. Sphericity	1653.416
Chi-Square	
df	105
Sig.	.000

Communalities – Self-esteem sub-scale

	Initial	Extraction
Q.1em	1.000	.427
Q.2em	1.000	.564
Q.3em	1.000	.574
Q.4em	1.000	.558
Q.5em	1.000	.577
Q.6em	1.000	.466
Q.7em	1.000	.576
Q.8em	1.000	.641
Q.9em	1.000	.337
Q.10em	1.000	.329
Q.11em	1.000	.305
Q.12em	1.000	.627
Q.13em	1.000	.379
Q.14em	1.000	.244
Q.15em	1.000	.383

Extraction Method: Principal Component Analysis.

Total Variance Explained – Self-esteem sub-scale

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.290	21.934	21.934	3.290	21.934	21.934
2	1.459	9.729	31.663			
3	1.164	7.757	39.420			
4	1.073	7.156	46.576			
5	.973	6.489	53.065			
6	.905	6.035	59.100			
7	.893	5.953	65.053			
8	.796	5.308	70.361			
9	.726	4.841	75.202			
10	.715	4.767	79.970			
11	.693	4.621	84.591			
12	.652	4.349	88.939			
13	.604	4.029	92.969			
14	.553	3.685	96.653			
15	.502	3.347	100.000			

Extraction Method: Principal Component Analysis.

2.2.3 Validity – All scales included (1 Factor - Q.9 & 12 removed)

KMO and Bartlett's Test – Self-esteem sub-scale

KMO Measure of Sampling Adequacy.		.801
Bartlett's Test of Sphericity	Approx. Chi-Square	1498.90
	df	78
	Sig.	.000

Communalities – Self-esteem sub-scale

	Initial	Extraction
Q.1em	1.000	.427
Q.2em	1.000	.564
Q.3em	1.000	.574
Q.4em	1.000	.558
Q.5em	1.000	.577
Q.6em	1.000	.466
Q.7em	1.000	.576
Q.8em	1.000	.641
Q.9em	1.000	.337
Q.10em	1.000	.329
Q.11em	1.000	.305
Q.12em	1.000	.627
Q.13em	1.000	.379
Q.14em	1.000	.244
Q.15em	1.000	.383

Extraction Method: Principal Component Analysis.

Total Variance Explained – Self-esteem sub-scale

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.204	24.642	24.642	3.204	24.642	24.642
2	1.355	10.426	35.068			
3	1.106	8.507	43.575			
4	1.008	7.751	51.326			
5	.906	6.969	58.294			
6	.816	6.275	64.569			
7	.796	6.120	70.689			
8	.737	5.673	76.362			
9	.717	5.515	81.877			
10	.658	5.059	86.936			
11	.636	4.894	91.830			
12	.556	4.277	96.107			
13	.506	3.893	100.000			

Extraction Method: Principal Component Analysis.

3. Sub-scale 2: Purpose-in-life sub-scale

3.1 Reliability – Purpose-in-life scale sub-scale

Reliability Statistics – Purpose-in-life scale sub-scale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.838	.843	10

Item-Total Statistics – Purpose-in-life scale sub-scale

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q.16em	41.56	34.225	.447	.259	.831
Q.17em	41.86	32.663	.469	.300	.830
Q.18em	40.77	33.992	.487	.398	.827
Q.19em	40.78	33.577	.572	.414	.821
Q.20em	41.72	31.442	.593	.387	.817
Q.21em	41.44	32.983	.565	.361	.820
Q.22em	41.47	32.182	.628	.410	.814
Q.23em	41.44	31.998	.451	.253	.835
Q.24em	41.70	32.766	.571	.339	.820
Q.25em	41.26	32.872	.592	.435	.818

3.2 Validity – Purpose-in-life scale

3.2.1 Validity – Purpose-in-life scale: single factors

KMO and Bartlett's Test – Purpose-in-life scale sub-scale

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.885
Bartlett's Test of Sphericity	Approx. Chi-Square	2590.731
	df	45
	Sig.	.000

Communalities

	Initial	Extraction
Q.16em	1.000	.293
Q.17em	1.000	.323
Q.18em	1.000	.381
Q.19em	1.000	.468
Q.20em	1.000	.475
Q.21em	1.000	.459
Q.22em	1.000	.519
Q.23em	1.000	.315
Q.24em	1.000	.454
Q.25em	1.000	.497

Extraction Method: Principal Component Analysis.

Total Variance Explained - Purpose-in-life scale sub-scale

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	4.185	41.846	41.846	4.185	41.846	41.846
2	1.181	11.812	53.658			
3	.867	8.667	62.325			
4	.688	6.880	69.206			
5	.617	6.173	75.379			
6	.581	5.813	81.191			
7	.544	5.444	86.636			
8	.500	4.999	91.635			
9	.423	4.233	95.868			
10	.413	4.132	100.000			

Extraction Method: Principal Component Analysis.

4. Sub-scale 3: Locus of control sub-scale

4.1 Reliability – LOC

Reliability Statistics – LOC sub-scale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.784	.781	13

Item-Total Statistics – LOC sub-scale

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q.26em	56.97	66.760	.368	.265	.776
Q.27em	56.23	67.310	.429	.288	.768
Q.28em	57.30	69.618	.310	.151	.781
Q.29em	56.42	66.449	.464	.343	.764
Q.30em	56.11	64.322	.602	.451	.750
Q.31em	55.91	66.609	.517	.327	.760
Q.32em	56.27	64.732	.529	.338	.757
Q.33em	56.29	64.625	.511	.296	.759
Q.34em	56.00	66.507	.501	.299	.761
Q.35em	55.43	73.701	.266	.329	.781
Q.36em	55.36	73.823	.260	.399	.782
Q.37em	55.45	73.798	.281	.311	.780
Q.38em	55.09	75.203	.258	.294	.782

4.2 Validity – LOC

4.2.1 Validity – LOC (Single factors - Q.33 removed)

KMO and Bartlett's Test – LOC sub-scale

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.838
Bartlett's Test of Sphericity	Approx. Chi-Square	2752.334
	df	78
	Sig.	.000

Component Matrix^a – LOC sub-scale

	Component 1
Q.30em	.713
Q.32em	.659
Q.31em	.648
Q.33em	.639
Q.34em	.631
Q.29em	.585
Q.27em	.550
Q.26em	.485
Q.28em	.410
Q.37em	.369
Q.35em	.357
Q.36em	.346
Q.38em	.336

Extraction Method: Principal
Component Analysis.

a. 1 components extracted.

Total Variance Explained – LOC sub-scale

Component	Total	Initial Eigenvalues		Extraction Sums of Squared Loadings		
		% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.716	28.581	28.581	3.716	28.581	28.581
2	2.214	17.033	45.614			
3	1.051	8.082	53.695			
4	.883	6.796	60.491			
5	.801	6.161	66.652			
6	.648	4.982	71.634			
7	.629	4.835	76.469			
8	.584	4.491	80.960			
9	.571	4.392	85.353			
10	.550	4.230	89.582			
11	.496	3.817	93.400			
12	.444	3.419	96.818			
13	.414	3.182	100.000			

Extraction Method: Principal Component Analysis.

5. Scale 4: Self-actualisation

5.1 Reliability – Self-actualisation

5.1.1 Reliability – Self-actualisation (All items)

Reliability Statistics – Self-actualisation sub-scale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.738	.769	13

Summary Item Statistics – Self-actualisation sub-scale

	Mean	Minimum	Maximum	Range	Max/ Minimum	Variance	N of Items
Item Means	4.801	3.529	5.378	1.849	1.524	.321	13

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q.39em	57.56	45.775	.236	.123	.735
Q.40em	58.37	44.775	.177	.174	.749
Q.41em	58.05	40.891	.421	.354	.714
Q.42em	57.03	43.910	.387	.191	.719
Q.43em	57.46	44.596	.294	.182	.729
Q.44em	57.22	43.902	.446	.260	.715
Q.45em	57.98	40.729	.419	.361	.714
Q.46em	58.88	43.642	.203	.185	.749
Q.47em	57.68	45.145	.233	.112	.736
Q.48em	57.13	42.557	.526	.349	.706
Q.49em	57.37	42.800	.483	.321	.709
Q.50em	57.11	42.973	.589	.565	.704
Q.51em	57.08	42.609	.589	.574	.702

5.1.1 Reliability – Self-actualisation (Q.40 & 46 removed)

Reliability Statistics – Self-actualisation sub-scale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.775	.788	11

Summary Item Statistics – Self-actualisation sub-scale

	Mean	Minimum	Maximum	Range	Max / Minimum	Variance	N of Items
Item Means	4.985	4.364	5.378	1.014	1.232	.128	11

Item-Total Statistics – Self-actualisation sub-scale

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q.39em	49.99	35.618	.297	.103	.772
Q.41em	50.48	31.412	.458	.351	.756
Q.42em	49.46	34.518	.400	.190	.761
Q.43em	49.89	34.734	.337	.179	.768
Q.44em	49.65	34.555	.458	.258	.755
Q.45em	50.41	30.988	.476	.358	.753
Q.47em	50.11	35.395	.259	.109	.778
Q.48em	49.56	33.799	.494	.319	.751
Q.49em	49.80	33.518	.499	.320	.750
Q.50em	49.54	34.007	.571	.560	.746
Q.51em	49.51	33.646	.576	.574	.744

5.2 Validity – Self-actualisation

5.2.1 Validity – Self-actualisation – Single factor (Q.39 & 47 removed)

KMO and Bartlett's Test – Self-actualisation sub-scale

KMO Measure of Sampling Adequacy.		.797
Bartlett's Test of Sphericity	Approx. Chi-Square	2099.57
	df	36
	Sig.	.000

Communalities – Self-actualisation sub-scale

	Initial	Extraction
Q.41em	1.000	.301
Q.42em	1.000	.292
Q.43em	1.000	.205
Q.44em	1.000	.362
Q.45em	1.000	.326
Q.48em	1.000	.378
Q.49em	1.000	.428
Q.50em	1.000	.575
Q.51em	1.000	.588

Extraction Method: Principal Component Analysis.

Total Variance Explained – Self-actualisation sub-scale

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.457	38.407	38.407	3.457	38.407	38.407
2	1.171	13.008	51.415			
3	.984	10.932	62.347			
4	.855	9.497	71.844			
5	.688	7.641	79.485			
6	.592	6.580	86.064			
7	.560	6.221	92.285			
8	.425	4.721	97.007			
9	.269	2.993	100.000			

Extraction Method: Principal Component Analysis.

6. Scale 5: Ideological commitment

5.1 Reliability – Ideological commitment

5.1.1 Reliability – Ideological commitment (All items)

Reliability Statistics – Ideological commitment sub-scale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.722	.720	6

Summary Item Statistics – Ideological commitment sub-scale

	Mean	Minimum	Maximum	Range	Maximum / Minimum	Variance	N of Items
Item Means	4.866	4.646	5.312	.666	1.143	.066	6

Item-Total Statistics – Ideological commitment sub-scale

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item- Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q.52em	23.89	16.089	.290	.134	.726
Q.53em	24.24	14.966	.408	.202	.698
Q.54em	24.55	12.943	.514	.433	.665
Q.55em	24.48	13.503	.432	.196	.694
Q.56em	24.55	12.585	.579	.485	.643
Q.57em	24.29	14.083	.518	.286	.668

5.1 Validity – Ideological commitment

5.1.1 Validity – Ideological commitment (Single factor)

KMO and Bartlett's Test – Ideological commitment sub-scale

KMO Measure of Sampling Adequacy.		.725
Bartlett's Test of Sphericity	Approx. Chi-Square	1087.941
	df	15
	Sig.	.000

Communalities – Ideological commitment sub-scale

	Initial	Extraction
Q.53em	1.000	.318
Q.54em	1.000	.580
Q.55em	1.000	.363
Q.56em	1.000	.650
Q.57em	1.000	.503

Extraction Method: Principal Component Analysis.

Total Variance Explained – Ideological commitment sub-scale

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.413	48.264	48.264	2.413	48.264	48.264
2	.897	17.946	66.210			
3	.743	14.853	81.063			
4	.612	12.234	93.297			
5	.335	6.703	100.000			

Extraction Method: Principal Component Analysis.

7. Scale 6: Ego strength scale

7.1 Reliability – Ego strength scale

7.1.1 Reliability – Ego strength scale

Reliability Statistics – Ego strength sub-scale

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.800	.796	11

Summary Item Statistics – Ego strength sub-scale

	Mean	Minimum	Maximum	Range	Max/ Minimum	Variance	N of Items
Item Means	3.936	2.862	4.789	1.927	1.673	.315	11

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
Q.58em	38.50	80.045	.237	.120	.804
Q.59em	40.43	76.558	.345	.344	.795
Q.60em	40.18	72.544	.461	.445	.784
Q.61em	39.64	74.331	.443	.242	.786
Q.62em	38.73	75.179	.393	.180	.790
Q.63em	39.20	73.176	.454	.261	.784
Q.64em	39.25	70.608	.535	.500	.775
Q.65em	39.16	72.237	.504	.312	.779
Q.66em	39.42	72.706	.458	.253	.784
Q.67em	39.18	68.930	.598	.398	.768
Q.68em	39.24	69.460	.577	.518	.771

7.2 Validity – Ego strength scale

7.1.1 Validity – Ego strength scale: Single factors (Q.58 removed)

KMO and Bartlett's Test – Ego strength sub-scale

KMO Measure of Sampling Adequacy.		.808
Bartlett's Test of Sphericity	Approx. Chi-Square	2322.312
	df	45
	Sig.	.000

Communalities – Ego strength sub-scale

	Initial	Extraction
Q.59em	1.000	.225
Q.60em	1.000	.356
Q.61em	1.000	.320
Q.62em	1.000	.245
Q.63em	1.000	.326
Q.64em	1.000	.454
Q.65em	1.000	.360
Q.66em	1.000	.327
Q.67em	1.000	.520
Q.68em	1.000	.505

Extraction Method: Principal Component Analysis.

Total Variance Explained – Ego strength sub-scale

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.639	36.390	36.390	3.639	36.390	36.390
2	1.414	14.137	50.527			
3	.939	9.392	59.919			
4	.809	8.087	68.006			
5	.735	7.346	75.352			
6	.666	6.663	82.015			
7	.588	5.877	87.892			
8	.519	5.187	93.079			
9	.391	3.912	96.991			
10	.301	3.009	100.000			

Extraction Method: Principal Component Analysis.