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**Faculty of Community and Health Sciences**

**Title:** Employment and employability profiles of postgraduate psychology alumni from a historically disadvantaged university

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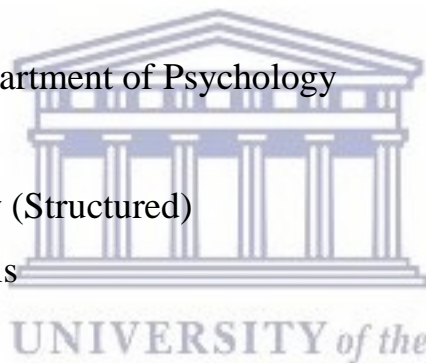
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## Abstract

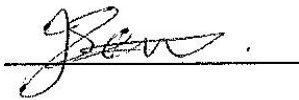
The present study aimed to determine the employment and employability profiles of alumni from structured professional Masters programmes in psychology. Issues of low enrolment rates and high attrition rates are at the fore of transformation efforts in the South African higher education sector. The concern of graduate employability and the relevance of skills training received to the labour market are of international concern. Graduate tracer studies have been successfully implemented internationally to attempt to understand these issues. Training relevance is of particular concern for the field of psychology in South Africa, as there is a significant shortage of mental health professionals. Understanding where graduates from professional Masters degrees in psychology find employment, as well as understanding their employability, may lead to greater absorption of graduates from these programmes into the workforce. Permission to conduct the present study and ethics clearance was obtained from the Senate Research Committee of the University of the Western Cape, and all relevant ethics principles were adhered to. An incentivised, online survey was conducted with a sample of 29 Masters-level graduates from two professional psychology programmes at a historically disadvantaged university. The study used a modified version of the Standard Instrument for Graduates. The survey had a 50% response rate (29 of 58) after at least four electronic reminders. Respondents graduated between 2008 and 2013, 13 from the clinical Masters programme and 16 from the research Masters programme. Descriptive statistics were used to depict the employment and employability profiles of the alumni. Most of the respondents were female (n=21), and about a third were first generation students (n=11). Most of the respondents were currently employed (n=25). They were employed in a variety of fields, predominantly health (n=10) and higher education (n=7), and largely clustered in the public sector (n=17). This suggested a transferability of skills. The training received was perceived to be relevant, in terms of accessing employment and conducting current work. Most of the clinical graduates were registered as clinical psychologists (n=12) with the Health Professionals Council of South Africa. There were varied registrations held by graduates from the research programme and some were not registered. The respondents held generally positive attitudes towards their alma mater. These descriptive results were interpreted through the use of McQuaid and Lindsay's (2005) framework of employability, based on the interaction between their individual factors, personal circumstances and external factors. Through this frame, the results highlighted the complex nature of the employability of these graduates.

## Declaration

I declare that the mini-thesis entitled *Employment and employability profiles of postgraduate psychology alumni from a historically disadvantaged university* is my own work. It has not been submitted for any degree or examination at any other university, and all the sources I have used or quoted have been indicated and acknowledged by complete references.

Mrs Janine Senekal

Signed:



Date: 16 July 2018



## Acknowledgements

The financial assistance of the National Research Foundation (NRF) towards this research is hereby acknowledged. Opinions expressed, and conclusions arrived at, are those of the author and are not necessarily to be attributed to the NRF.

Thank you to the UWC staff, research Masters class of 2016, the staff of CeSTII at the Human Sciences Research Council, and all my friends and family who have supported me in numerous ways throughout this process.

Thank you to my parents, Gary and Hilary, for supporting my educational development throughout my life, and empowering me to achieve all that I have. Without you, I would not have been able to be where I am today.

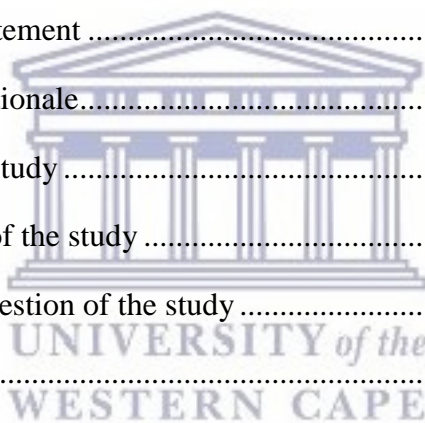
Thank you to Mario Smith for his supervision, guidance and direction. Your knowledge and expertise helped me find my way in the swamp of research.

To my husband Jean-Pierre Senekal, thank you for your endless support and encouragement throughout this process. You have kept me sane and given me the strength to persevere and overcome everything in my way.

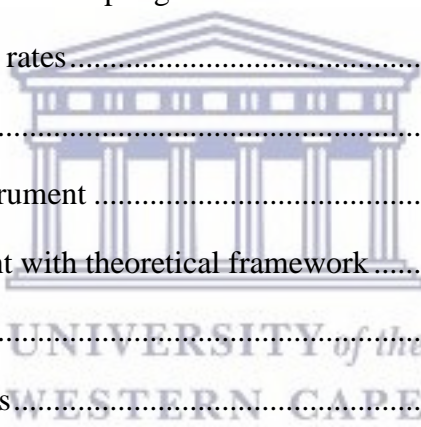
Thank you to God, for enduring faithfulness, love and mercy. Thank You for guiding me, giving me strength and hope, and for never giving up on me. Thank You for all You have provided, and for the path You are leading me on.

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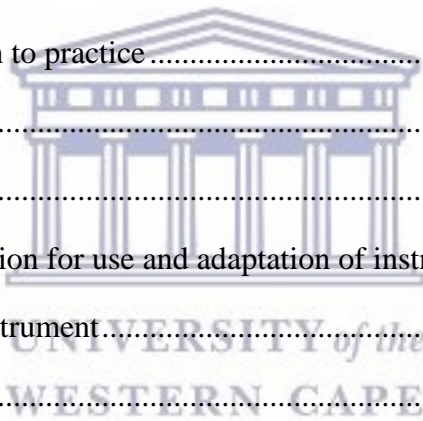


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## 1 Introduction

### 1.1 Background

The higher education sector plays a vital role within the South African economy, as it has been identified as the main pipeline of human resource development (DST, 2007; Shrivastava & Shrivastava, 2014). The National Plan for Higher Education and the Department of Science and Technology's (DST) Ten-Year Innovation Plan identified a positive correlation between economic development and the level of participation in higher education, indicating that increased participation in higher education may significantly improve employment and economic transformation in South Africa (Asmal, 2001; DST, 2007). As such, the National Development Plan for 2030 identified increased participation in higher education as integral to achieving the goals of economic growth and societal transformation (National Planning Commission (NPC), 2011b). The Council for Higher Education (CHE, 2015) has reported an increase in participation rates in higher education, as reflected in increased enrolments in recent years. In particular, a notable increased representativeness of the general population with regard to race has been reported (CHE, 2015). However, increased participation has not translated into improved completion rates, ostensibly due to issues surrounding retention and throughput in higher education (Cloete, 2009; NPC, 2011a). Wingfield (2011) underscored that throughput rates were of particular concern for Masters and Doctoral students in South Africa. MacGregor (2014) reported completion rates in South Africa at 13% and 20% for Doctoral and Masters students respectively. These throughput rates supported the evidence that the greater participation in higher education has not translated into greater completion of tertiary-level training for designated demographic groups. The disconnection between participation and throughput rates is true even more so at a postgraduate level.

According to the National Development Plan, the ability of graduates to participate in the knowledge economy depends partly on the skills they were equipped with, which enabled them to access employment, thus determining their employability (NPC, 2011b). The National Plan for Higher Education outlined that these skills need to go beyond technical skills to more general skills (Asmal, 2001). This included analytical skills, communication skills, negotiation skills, social sensitivity, computer literacy, adaptability, flexibility and continuous learning (Asmal, 2001). As reported by Koen (2006), the employability of graduates is influenced by the applicability of higher education training to the labour market.

In addition, Moleke (2001) posited that “the skills [graduates] possess do not match the skills the economy needs to make great strides” (p. 215). The identified gap between the skills graduates have and the skills used in the labour market highlights the connection between higher education skills relevance, employability and economic development. The issue of employability thus becomes vital to examine at a postgraduate level where cohorts are small, and the impact of unemployment is exponentially larger.

The Cape Higher Education Consortium (CHEC) identified alumni-based research as an important vehicle that may ensure that curricula keep pace with the labour market and economic state of the country (CHEC, 2013). Alumni-based research tracks graduates and gathers information from them regarding their employment destinations and the extent to which their studies equip them for their subsequent employment (Mubuuke, Businge, & Kiguli-Malwadde, 2014). Information gathered from alumni may be utilised to determine curriculum adjustments for labour market relevance, policy adjustments to mediate graduates’ transition from higher education into the world of work, institutional marketing, or to inform new or potential higher education students about career prospects. As such, graduate tracer study research has been noted to have far reaching benefits (CHEC, 2013).

There has been an international increase in concern regarding the employability of graduates, given the identified role of higher education to prepare graduates for employment, as well as the prevalence of unemployment (Goodman & Tredway, 2016; Griesel & Parker, 2009; Kaburise, 2016; Melink & Pavlin, 2009). The identified concerns about graduate skills, curriculum relevance, and employability is justified, as immediate employment has been noted to be difficult to achieve across all fields of study (Koen, 2006), and in particular for graduates from the humanities and the arts (Cosser, 2003). The issue of employability may be of particular concern for fields that are considered underrepresented in the workforce, regarding whether graduates in these fields are being appropriately absorbed into the labour market.

## **1.2 Problem statement**

There are very few registered psychologists in South Africa, which has been identified as a significant shortage of these skilled professionals (Mashigo, 2017). The scarcity of psychological professionals may be attributed to the exponentially higher impact of attrition on small numbers of trainees and graduates pursuing professional registration. According to the website of the Health Professions Council of South Africa (HPCSA),

psychological practitioners formed 7.5% of the health professionals in South Africa in 2017. According to the HPCSA (<http://www.hpcsa.co.za/Publications/Statistics>), the total number of 18 750 psychological practitioners (including students and interns) registered in 2017 were available to provide psychological services to a population of about 56.5 million (<http://www.southafrica.info/about/people/population.htm>). The ratio of practitioners to the population was the equivalent of one psychological practitioner per 3013 people, provides supporting evidence for the identified strain on mental health care professionals (A. L. Pillay & Kramers-Olen, 2014). However, the ratio of practitioners to population is also an indication that the majority of the population does not have access to mental health care services, as the majority of psychological services have been identified as located in the private sector (Cooper, 2014). The greater capacity of private health services is largely due to the historical development of health services which has yet to be fully rectified. Government and public sector employment opportunities are limited, despite the need for more broadly and publicly accessible mental health professionals, which further forces registered psychologists towards the private sector (Department of Health (DoH), 2013). The clustering of professionals in the private sector indicates a perpetuation of the trend in which health care services (including psychological services) are accessible to the few who can pay for it, resulting in limited access for the majority of the population. It therefore becomes important to examine where professionally trained psychology graduates find employment, considering both health care access and employment opportunities.

For many years, the field of psychology has been dominated by White individuals, despite the demographics of the country as a whole (A. L. Pillay & Kramers-Olen, 2014; A. L. Pillay & Kramers, 2003). The implications of a predominantly White demographic in the field of psychology further limits access, in a more nuanced sense, to those who were able to communicate in the language of the health professionals available. One would expect to see a greater diversification in the demographics of those training and practising in the health professions in South Africa, given that it has been more than 20 years since Apartheid ended. There has also been an increased 'feminisation' of psychology in South Africa, in that the majority of practitioners have been identified as female, which mirrors the international trend (A. L. Pillay & Kramers-Olen, 2014). The predominance of females in the field of psychology is in contrast to general South African undergraduate and postgraduate trends, which have been dominated by males (Badat, 2010). This further underlines the unique nature of the field of psychology.

There are larger than usual postgraduate intakes in psychology departments at honours degree level, despite the fallout from undergraduate degree levels. The regulations defining the scope of practice outlined by the Department of Health (DoH) indicate that the completion of a Masters degree in psychology must be followed by the completion of an approved internship and passing a board exam in order to qualify and register as a practicing psychologist in South Africa (DoH, 2008). Entrance into the Masters degree programmes is determined by a stringent selection process, and class sizes are typically small (Ahmed & Pillay, 2004). There remains a risk of non-completion or termination of psychology Masters students, meaning that acceptance into these programmes is not a guarantee of completion (Offord, 2016). The persistent risk of non-completion means that the small group of psychology Masters graduates is particularly vulnerable in terms of accessing employment after graduation (Kagee & O'Donovan, 2011). What is unknown was what happens to these highly-skilled and educated individuals, where do they find employment, and what skills enable them to become economically active? Such questions have commonly been answered through alumni-studies or tracer studies (Mubuuke et al., 2014). The present study conducted a graduate tracer study survey to gain a sense of the employment and employability profiles of alumni from two structured professional Masters programmes in psychology, namely clinical psychology and research psychology, at a historically disadvantaged university. The name of the institution has been anonymised throughout using 'XXX'.

### **1.3 Research rationale**

The South African government has undertaken various initiatives towards transformation, since the birth of democracy in 1994 (Badat, 2010). The higher education sector has been identified as needing significant reworking, as it holds a key position in developing human resources, training highly-skilled individuals, and knowledge production (Asmal, 2001; Coetzee & Esterhuizen, 2010; DST, 2007). The necessity of transforming the higher education sector was highlighted in the National Plan for Higher Education, as well as in the Ten-Year Innovation Plan and the National Development Plan (Asmal, 2001; DST, 2007; NPC, 2011b).

Retention and throughput were identified as areas of concern in the National Plan for Higher Education and the National Development Plan (Asmal, 2001; NPC, 2011b). The effects of identified low enrolment rates and high attrition rates are compounded by the increased demand for higher skill levels in the labour market (Asmal, 2001; NPC, 2011b).



There have been upward trends in higher education participation rates (Cloete, 2014) and improved population representation in enrolment rates (Wangenge-Ouma, 2012), yet attrition rates and low completion rates remain prominent, particularly for Black students (Sommer & Dumont, 2011; Wangenge-Ouma, 2012). Enrolment patterns have historically been racialised, and remain so. The Department of Higher Education and Training (DHET) has identified that the population of students who enrol in historically disadvantaged institutions (HDI) have been more aligned with the national targets for higher education, with majority Black and Coloured students (DHET, 2012). Additionally, HDIs attract many first-generation students from previously disadvantaged backgrounds (DHET, 2012). As such, researching HDIs remains a focus.

The National Development Plan identified a focus on increasing participation and throughput of postgraduate students in particular. The most recent statistical profile of South African postgraduate students was the document by CHE (2009), based on data from 2005. High level results described the demographics of Masters students, including their age at graduation, how long it took to complete a Masters degree, and participation rates in Masters degrees. The mean age of Masters students at graduation was 34 years, as of 2005. The mean number of years to complete a Masters degree was 2.9 years, as of 2005. The average time taken to complete a Masters degree ranged from 2.4 years for students under 30, to 3.5 years for students over 60. The study further showed that the participation rate of Masters graduates in the 25-34-year-old age bracket was .98 per 1000. The data supported the identified importance of research focusing on post-graduate students.

There has been an escalation of student protest movements in recent years, such as #RhodesMustFall and #FeesMustFall, demanding release from student debt, no increase in fees, and free education (S. R. Pillay, 2016). These movements also included a call for the decolonisation of higher education, towards greater transformation within the system as a whole (Pather, 2015; S. R. Pillay, 2016). These movements further highlight the imperative for higher education transformation.

A large portion of citizens have been noted to be less able to actively participate in employment after completion of higher education (NPC, 2012). The decreased ability to access employment after completing a tertiary degree has limited citizens' ability to participate as active members of society, a core human right laid out in the Constitution of South Africa (1996). Immediate employment after graduation has been identified as rare (Koen, 2006). Furthermore, when employment is attained immediately after graduation, these

positions are usually default positions for which the graduates are overqualified, in field that are unrelated to the field of study, or seen as step towards preferred employment or career goals (Koen, 2006). The identified mismatch between training and employment highlights the difference between obtaining employment and securing employment that was deemed relevant, in that it appropriately utilised the skills of the individual. The issue of graduate employability was further highlighted in the CHEC (2013) study, with the implication that education may not be the cure for unemployment. The limited power of education to reduce unemployment may undermine the imperative to improve graduation throughput in order to improve the economic state of the country, as outlined in the Ten-Year Innovation Plan (DST, 2007).

Graduate tracer studies enable the measurement of various aspects within the higher education sector, including graduate un/employment, employment destinations, employment seeking behaviour, evaluation of educational experiences, and the relevance of training to the work place (Cabrera, Weerts, & Zulick, 2003; CHEC, 2013; McGovren & Carr, 1989; Schomburg & Teichler, 2006). The results of such research may be used to inform depictions of the graduate labour market, as well as policy and curriculum development (CHEC, 2013). As such, a graduate tracer study method may be beneficial towards understanding the complex nature of issues relating to retention, throughput and employability in the higher education sector of South Africa. Few and sporadic institutional or departmental graduate tracer studies have been conducted in the South African context, with fewer still at historically disadvantaged institutions (CHEC, 2013). Du Toit, Kraak, Favish, and Fletcher (2014) attributed the lack of tracer studies to funding and resource limitations. As such, it becomes important to conduct graduate tracer studies at various levels within the South African higher education context, at both historically advantaged and disadvantaged institutions, at the departmental level and institutionally, in order to assist in repositioning the higher education sector to be efficient and effective in terms of access, retention, throughput and the employability of graduates.

#### **1.4 Aim of the study**

The aim of the study was to determine the employment patterns and the employability profiles of alumni from structured professional psychology Masters programmes.

### **1.5 Objectives of the study**

1. To establish a demographic profile of the alumni
2. To determine the employment destinations of the alumni
3. To determine the perceived relevance of skills training to the working environment
4. To determine the percentage of eligible graduates who have completed registration as health professionals
5. To establish the alumni's attitude towards their alma mater

### **1.6 Research question of the study**

What are the employment patterns and the employability profiles of alumni from structured professional psychology Masters programmes?

## **2 Literature Review**

The body of literature in the field of higher education, in particular in the South African context, centres around issues of participation, representation, retention and throughput, transitions into, through and out of higher education, training relevance, employment destinations and employability. In addition, graduate attributes and graduate tracer studies have been identified as a means to understanding the above-mentioned issues, yet have been infrequently utilised in the South African context, warranting a review of the literature on these topics.

### **2.1 Retention, throughput and transitions**

In the South African context, issues of retention and throughput have been of particular focus in studies concerning the transition from secondary to tertiary education institutions. For example, Hobden and Hobden (2015) examined the long-term effect of secondary school interventions in terms of future study and work destinations. Setlalentoa (2013) examined the preparedness of secondary school graduates for tertiary education from the perspective of the educators. Both studies noted the difficulties of the transition from secondary school into tertiary education, including the importance of study programme choice. The importance of study programme selection was further explored by Cosser and Nenweli (2013) and Cosser (2009). Both studies focused on how programme selection

affected the transition into higher education, particularly as it related to throughput from tertiary enrolments to graduation. Hobden and Hobden (2015) further identified that transitions through tertiary education may be complicated by false starts and changes in direction, in terms of study choice or focus. The importance of programme selection in higher education research, as it affects retention, throughput and transition into and through higher education was highlighted.

There has been relatively less research in South Africa concerning the transition out of higher education and into the work place. For example, Du Toit et al. (2014) identified that research concerning the movement from higher education to the world of work tends to be limited to graduate opinion or exit surveys. In the South African context, opinion or exit surveys may be distinguished from graduate tracer studies, as they typically survey alumni upon graduation (CHEC, 2013; Du Toit et al., 2014). Several South African higher education institutions conduct graduate opinion surveys at their graduation ceremonies. These surveys typically “aim to gather a quick ‘snapshot’ of job search behaviour, employment status, entry-level salaries, as well as satisfaction with the higher education institution, the curriculum they offer and its relevance to the workplace” (CHEC, 2013, p. 7). The initial snapshot of the transition from higher education into the workplace does not provide a long-term view of future employment (McCowan & Wyganowska, 2008). Purcell and Elias (2004) highlighted the issue of false starts in employment, which supported the notion that immediate employment destinations may not be indicative of long-term employment and career potential. Thus, research pertaining to the transition from higher education to the workplace, both in the short term and the long term, is important.

Methods used to search for employment have been used as an indicator in researching the transition from higher education into the workplace (CHEC, 2013). Job search activity has been understood as a representation of social capital or networks that the graduate is able to utilise to access employment (CHEC, 2013; Tomlinson, 2017). Tomlinson (2017) further noted that the interaction of these social relationships and networks mobilise graduates’ existing individual qualities and abilities. The mobilisation of individuals improves graduate access to the labour market and their ability to understand and engage with it in a meaningful and productive way (Tomlinson, 2017). The ability to access social networks and social capital was identified as important beyond job search, and may be tied to parental education level – an indicator of social capital (CHEC, 2013). Parental education level has been identified as an indicator of social support, affecting educational and career

aspirations, and through access to education and employment networks (Ball, 2010). There has been an influx of first generation students at South African higher education institutions, particularly at HDIs (DHET, 2012). Research notes that first generation students are less likely to complete their tertiary education (Siyengo, 2015; van Zyl, 2013). The increased attrition for first generation students has been linked to the lower levels of social, financial and educational support that their families were able to provide (Siyengo, 2015; van Zyl, 2013). Research has therefore noted the importance of various support factors affecting the ability of individuals to transition into the workplace.

Much of the relatively small body of literature focusing on retention, throughput and transition from higher education focused on undergraduate programmes. For example, Letseka, Cosser, Breier, and Visser (2010) examined the retention and graduate destinations of completers and non-completers of undergraduate programmes. One of the few examples where post-graduate students were researched was the study by Albertyn, Kapp, and Bitzer (2008). The study focused on completion rates of post-graduate students, and highlighted that there was limited research focused on throughput and transition of students from postgraduate programmes (Albertyn et al., 2008). An increase in postgraduate throughput, particularly at Doctoral level, was highlighted as a priority area of transformation in the National Development Plan (NPC, 2011b). Low participation rates and high attrition rates are compounded from undergraduate to postgraduate levels, and throughout different levels of postgraduate i.e. from Honours to Masters, and Masters to Doctorate. Thus, attrition exponentially impacts negatively on participation and representation at postgraduate levels. As such, research focusing on issues of retention, throughput and transition among postgraduate students is both vital and lacking in the South African context.

## **2.2 Relevance of training**

An emerging concern internationally and nationally has been the skills (mis)match of higher education graduates with regard to their ability to access employment (De la Harpe, Radloff, & Wyber, 2000; Holmes, 2013; Mason, Williams, & Cranmer, 2009; Schwartz, 2014). As mentioned before, exit studies or graduate opinion surveys focus on an evaluation of educational experience and are typically conducted at the end of the educational experience (CHEC, 2013). Exit studies are opinion based, and so may be affected by reduced recollection accuracy and the influence of other experiences (Weisberg, 2005). As such, the short-term focus of exit studies ensures that there is minimal time between the university

experiences being surveyed and the survey itself. In this way, the timing of exit studies may be considered appropriate, as the research is less likely to be affected by error due to the accuracy of participant recollection. However, the short-term focus provides little insight into the long-term relevance of the skills training received for later employment.

Research involving the evaluation of higher education training has often been in relation to current work tasks and overall satisfaction with training (Aina & Moahi, 1999; Lutwama & Kigongo-Bukenya, 2004). Mugabushaka, Schomburg, and Teichler (2007) asked respondents to assess the study conditions and provisions of their higher education experiences. These conditions were divided into three themes: teaching and learning study provisions, infrastructure and equipment of the university, and student welfare. The evaluations of the study programme or university experiences may exist as stand-alone research focus. However, there have been instances where the evaluation of curriculum relevance may be tied more directly to employability (De Guzman & De Castro, 2008), or may include the perspectives of existing professionals in the field or employers (Varalakshmi, 2006).

Graduate destinations, i.e. employment destinations after graduation, have been studied in conjunction with higher education evaluation to assess the labour market relevance of higher education training (CHEC, 2013). Depictions of the graduate labour market may be used to examine graduate unemployment. Such research has identified that there may be a mismatch between the skills required by the labour market and the skills that graduates possess. For example, Moleke (2001) examined South African graduates' first employment destinations and reported the same skills mismatch. Skills mismatch may be a reason why graduates may still struggle to access employment, despite their qualifications. Not only do the high levels of unemployed higher education graduates add to existing high levels of unemployment in South Africa, but education also then ceases to be a 'cure' for unemployment (CHEC, 2013).

There has been a growing concern that higher education graduates may in fact be overqualified for the entry level work that they are able to gain upon graduation, particularly within the fields of social sciences and humanities (Boulos, 2016; Green & McIntosh, 2007). Green and McIntosh (2007) differentiated between being over-qualified and being over-skilled, indicating that professional qualifications do not necessarily translate to relevant skills that were required and utilised in the workplace. The disconnection between qualifications and skills identified aligned with research by Boulos (2016) who specifically

addressed the predicament of highly qualified doctoral graduates. Many individuals may pursue a PhD in order to increase their vocational opportunities, yet the desired career development was identified to be slow to actualise, if at all (Boulos, 2016). It was suggested that the attainment of a PhD itself was not necessarily recognised to the same extent outside of academia, with the industry focus rather being on the skills required for or gained in the pursuit of a PhD (Boulos, 2016). The issue of the relevance of skills training received during higher education has been of particular interest as it relates to the transition of graduates from higher education into the workplace, namely, their employability.

### 2.3 Employability

Employability has become central to much higher education discourse, given the functional role of higher education institutions to prepare graduates for employment (Melink & Pavlin, 2009) and the on-going international issue of unemployment – including among graduates (Goodman & Tredway, 2016; Griesel & Parker, 2009; Kaburise, 2016). Simply put, employability refers to the ability of an individual to secure employment (Goodman & Tredway, 2016). However, the meaning of ‘employability’ has often been unclear or undefined and has most commonly been used synonymously with individual employability skills and/or attributes (Hinchliffe & Jolly, 2011; Holmes, 2013; McQuaid & Lindsay, 2005; Tomlinson, 2017).

A ‘narrow’ definition of employability has been identified, which focuses exclusively on graduate skills and attributes (Bridgstock, 2009; Griesel & Parker, 2009; McQuaid, Green, & Danson, 2005; McQuaid & Lindsay, 2005; Tomlinson, 2017). Within the narrow definition, the solution to unemployment is to increase skills, which is the responsibility of the individual and takes place through education (McQuaid et al., 2005; McQuaid & Lindsay, 2005; Tomlinson, 2017).

This singular focus on skills has been critiqued on various fronts. Firstly, there is a gap between the skills that graduates actually have, and the narrow definition of ‘graduate skills’ (Tomlinson, 2017). Secondly, employment cannot be ameliorated by simply ‘up-skilling’ (Tomlinson, 2017). Therefore, the narrow definition does not take the additional contextual factors that influence employability in general and the development of skills specifically into account, as these skills may also be developed in settings outside of the higher education context (Hinchliffe & Jolly, 2011; McQuaid et al., 2005; McQuaid & Lindsay, 2005; Tomlinson, 2017).

The alternative, 'broader' definition of employability integrates the skills and attributes of the individual, within their contextual settings, including labour market demand, competition, personal circumstances, and the economic, political and social context (Griesel & Parker, 2009; McQuaid & Lindsay, 2005). The broader definition changes the focus of employability from securing initial employment, to ensuring life-long, meaningful and relevant employment, enabled by the transferability of skills, rather than merely the possession of skills (McQuaid & Lindsay, 2005). The broader definition also takes the sole responsibility off of the individual, and places it additionally on the labour market and government policy to ensure that the demand for relevant positions increases to meet the supply of increasingly skilled graduates (McQuaid et al., 2005; McQuaid & Lindsay, 2005).

However, not all research has moved away from the narrow definition's traditional skills approach entirely. Researchers have attempted to add elements to the traditional skills approach to account for the more complex nature of employability. For example, Hinchliffe and Jolly (2011) explored the idea of graduate identity as a means of adding depth to the narrow definition of graduate employability. The conceptual understanding of graduate identity presented was offered in critique of the skills approach, which "cannot do justice to the complexity of gradueness" (p. 564). Graduate identity included experience beyond attributes alone, and included values, intellect, performance and engagement (Hinchliffe & Jolly, 2011). In another attempt to engage with a broader definition of employability, whilst building on the existing graduate attributes model, Bridgstock (2009) emphasised the importance of career management skills, given the continuously changing labour market. These skills allow individuals to adapt to task and role change within the fluctuating labour market. Bridgstock (2009) expanded on the traditional model of graduate attributes for employability, adding career management skills and career building skills to the traditional employability skills, and further emphasised traits, dispositions, discipline specific skills, generic skills, and self-management skills.

Current literature included research on how various aspects interact with or influence the employability of graduates. A study conducted in the Netherlands by Batistic and Tymon (2017) examined the relationship between networking behaviour and perceived employability, identifying that the relationship was an indirect one which was mediated by access to resources. The study conceptualised employability as being the result of interactive relationships with various contextual factors, and thus drew on a more complex definition of employability.



Much research on employability has been conducted internationally, but little has been operationalised in the South African context. Goodman and Tredway (2016) drew on international research, which identified volunteering as contributing to employability, and examined the contribution that volunteering had on employability with a South African sample. The social motivation for volunteering was identified as a predictor of perceived internal employability, suggesting that it may equip students with relevant competencies, preparing them for the work place (Goodman & Tredway, 2016). The study appeared to focus on skills acquisition yet identified settings aside from the higher education institution as the context of skills development. The study thus supported a broader definition of employability.

Another South African study by Kaburise (2016) highlighted the importance of improving 'soft skills', in particular communication ability, in order to improve employability. The study focused on up-skilling in order to improve employability, suggesting a narrow definition of the concept, yet it also recommended that the responsibility of improving these skills rests not only with the individual, should be a "cooperative venture involving all the stakeholders in education – students, parents, higher education institutions, business and government" (Kaburise, 2016, p. 87). It thus appears that the study utilised a broader conceptual understanding of employability.

Another aspect which may improve employability, or the ability to market oneself, is engagement with employers, for example through work experience (Tomlinson, 2017). Work experience acts as a bridge between higher education training and the labour market, facilitating the development of professional identity, which is typically developed in more applied training (Dahlgren, Handal, Szkudlarek, & Bayer, 2008). In addition to work experience, continuous learning may increase long term employability, both in terms of personal development and professional development (McQuaid & Lindsay, 2005). Engagement with continued professional development training may assist in maintaining relevance to the workplace, yet access to such networks was identified as a significant barrier to these benefits by Broad (2015) and Parekh (2015).

Griesel and Parker (2009) examined employers' perspectives of the quality of undergraduates, based on the attributes they considered important and expected of graduates upon entering the workplace, as well as the degree to which South African higher education graduates demonstrated these attributes. The study identified the importance of transferable skills, as well as aspects that go beyond key skills, including skilful practices, specialised

knowledge, personal identity and metacognition (Griesel & Parker, 2009). The study focused on the employability skills and attributes of graduates and acknowledged that employability may include factors beyond skills. The measurement of graduate attributes and skills has remained a key focus in higher education research, despite the theoretical development of the broader conceptual understanding of employability.

## 2.4 Graduate attributes

‘Graduate attributes’ is a term that has been used to refer to the desired outcomes of higher education as it relates to the skills or attributes that graduates could develop and possess upon graduation, which aid in gaining employment (Barrie, 2006). The role of graduate attributes has generally been agreed upon, yet there have been various different conceptualisations of graduate attributes (Barrie, 2006; Bridgstock, 2009). There have been varying lists of attributes or competencies developed by different stakeholders (universities, employers, government), so there has been no clear list of universal or national graduate attributes (Barrie, 2006; Bridgstock, 2009).

It has become important for institutions to investigate quality assurance, given the recent shifts in higher education and the labour market towards a knowledge-economy and the massification of higher education (Bridgstock, 2009; Ipaté & Parvu, 2010). Graduate attributes have been used as an indicator for the evaluation of the relevance of training or employability of graduates, which in turn have been used as an indicator of institutional success (Ipaté & Parvu, 2010). The operationalisation and utilisation of graduate attributes in research has been difficult to do, despite the identified need to measure and assess graduate attributes.

Compiled lists of graduate attributes have often been used as components of research concerning the abovementioned foci evaluating labour market relevance, employability or marketability. Studies by Schomburg and Teichler (2006) and Egesah, Wahome, Langat, and Wishtemi (2014) used the same list of graduate attributes three times, yet each time assessed from a different vantage point. For example, (1) evaluating the perceived extent to which these competencies were possessed at the time of graduation, (2) the perceived contribution of the university to said competencies, and (3) the extent to which these competencies were required or utilised in the workplace. These varying vantage points may highlight which competencies the university contributed towards, and perhaps more importantly, which competencies were developed outside of the university context (Tomlinson, 2017).

Hughes and Barrie (2010) highlighted four critiques of graduate attributes. Firstly, as mentioned above, there have been various conceptualisations of graduate attributes, which determined what was measured and how it was measured. Secondly, graduate attributes have been noted to be context-dependent and are developed in the individual over many years. Thirdly, they have been identified as a combination of dispositions, understanding, attributes, and practices, making them more abstract in nature than quantifiable and measurable. Lastly, graduate attributes may be linked to various institutional systems, which means that assessing and comparing results becomes increasingly difficult. Despite this critique, graduate attributes have been successfully incorporated into various forms of research in the higher education field, particularly in research related to training relevance and graduate employability.

An example of how graduate attributes have been incorporated into research may be seen in the research conducted by Schomburg and Teichler (2006), the data of which was used by Vaatstra and Vries (2007). The list of graduate attributes used included: cross-disciplinary thinking; planning, co-ordinating and organising; problem-solving ability; analytical competence; learning ability; working independently, and working in a team (Vaatstra & Vries, 2007). The list of attributes or 'competencies' used by Vaatstra and Vries (2007) was not exhaustive, but it included most of the key attributes identified by the three studies reviewed by Ipate and Parvu (2010). Ipate and Parvu (2010) identified the following common attributes: interpersonal skills, communication skills, decision-making skills, information retrieval skills, leadership skills motivation, a positive attitude, strategic skills, integrity, confidence, literacy, numeracy, analytical ability, team work ability, and the ability to work independently.

Within the South African context, the Department of Education (DoE) laid out the role of Higher Education as being one that promotes and develops social responsibility and awareness, and which produces graduates with specific skills and competencies towards lifelong learning (DoE, 1997). This list of skills included: critical and analytical skills, problem-solving abilities, communication skills, the ability to deal with change and diversity, and a tolerance of different worldviews and ideas. The South African Qualifications Authority (SAQA) outlined that graduates should be able to engage in five ways (SAQA, 1998). First, graduates must be able to engage in responsible problem solving using critical and creative thinking. Second, graduates must be able to work as part of a team. Third, graduates must be able to collect, analyse, organise and critically evaluate information.

Fourth, graduates must use sciences and technology effectively and critically, showing responsibility towards the environment and the health of others. Fifth, graduate must be able to view the world as a related system, wherein problem-solving contexts are not isolated.

The exact wording used to define graduate attributes differs in the literature, yet there are underlying commonalities that have been considered important across contexts. An exhaustive list has not yet been possible to compile. The list of competencies used by Schomburg and Teichler (2006), which has been applied across various European contexts, may be considered as a good template from which to develop a context-relevant list of graduate attributes for use in research, such as a graduate tracer study.

## **2.5 Graduate tracer studies**

Graduate tracer studies have long been used to track the activities of graduates from an educational institution (Mubuuke et al., 2014). The exact terminology used may differ by context, including graduate destination surveys, alumni surveys and alumni research that may be used interchangeably. There are subtle methodological differences between the terms and how they have been applied. Graduate tracer studies may be utilised to inform curriculum transformation and development, labour market depictions, institutional marketing, and to inform educational and labour market policy (CHEC, 2013). Common foci of graduate tracer studies included profiling graduate retention, throughput and transition; graduate un/employment; the evaluation of educational experience; and the relevance of training to the work place (Cabrera et al., 2003; CHEC, 2013; McGovren & Carr, 1989; Schomburg & Teichler, 2006). The field of graduate tracer study research may be considered a sub-field within higher education research. Given that this field has not been explored to a large extent within the South African context, a discussion of how these studies have been conducted was considered important to review from a literature standpoint. The review of literature on graduate tracer studies further informed the methodological decisions laid out in the methodology section.

### **2.5.1 Graduate tracer methodologies**

In a review of methodologies used in graduate tracer studies by J. S. Senekal (2015), graduate tracer studies typically used a survey design, due to the increased ability to access larger portions of the population and aiding generalisability, reliability and validity of the data (Mubuuke et al., 2014). It has been noted that further qualitative research, making use of focus group discussions or in-depth interviews would be beneficial to complement the

findings from the surveys, to provide a richer understanding of the graduates' subjective experiences (Albertyn et al., 2008; CHEC, 2013; Mubuuke et al., 2014). Qualitative tracer studies have been conducted, for example, the study by Lutwama and Kigongo-Bukenya (2004), but the scale of these qualitative studies has been more limited than a survey design allows for, resulting in a very limited snapshot of graduate experiences.

Longer term studies, conducted more than two years after graduation, have been deemed to provide a more accurate view of employment destinations and career trends, while shorter term studies, conducted within two years of graduation may be more suited for course evaluation (McCowan & Wyganowska, 2008; Purcell & Elias, 2004). Many department-specific studies, particularly in library and information related fields, have been conducted with small samples sizes to address issues related to that specific field of study, allowing greater depth in the snapshot of graduates than would be possible in a broader population (Aina & Moahi, 1999; Lutwama & Kigongo-Bukenya, 2004).

Larger sample sizes have been noted to be more common in institution- or country-wide graduate tracer studies, and were more prevalent in countries such as the United Kingdom (UK), United States of America (USA) and Australia (J. S. Senekal, 2015). This included a study by the Higher Education Statistics Agency (HESA) in the UK, which had a sample of over 567 000 graduates from multiple universities, and focused on short-term employment destinations (HESA, 2013). The sample was accessed through university records. A study by the National Association of Colleges and Employers (NACE) in the USA also focused on short-term employment destinations, with a sample of about 274 000 graduates from multiple universities (NACE, 2015). The sample was accessed through university records, as well as career services, LinkedIn employment profiles, and verification via professors or employers. Graduate Careers Australia has been responsible for implementing regular, systematic graduate tracer studies, an example of which was the Australian Graduate Survey 2013 which accessed a total of about 253 000 graduates from multiple universities and included short-term employment trends as well as university evaluation (Guthrie, 2014). The sample was accessed using university records, with the survey conducted through various mediums, including in person, online and telephonically.

Smaller samples, usually focusing on a single department, were more common in lower-income countries, and often involved a specific agenda, for example, the connection between study and work relevance or the implications of policy changes (J. S. Senekal, 2015). For example, Aina and Moahi (1999) focused on graduates from the Department of

Library and Information Studies at the University of Botswana who were working in Botswana, Lesotho and Swaziland. The study had a sample of 77, and utilised postal surveys. Lutwama and Kigongo-Bukenya (2004) conducted focus groups with 60 selected graduates from the East African School of Librarianship. Shongwe and Ocholla (2011) surveyed 40 graduates from the Library and Information Sciences programme at the University of Zululand using postal surveys. Stilwell (2004) included 40 alumni from the Honours programme in Information and Library Sciences at the University of Natal, using postal and email methods. Lastly, Varalakshmi (2006) obtained 27 responses to postal questionnaires of alumni graduates from the Department of Library and Information Sciences (LIS) at Andhra University who were working in LIS centres or related fields. Apart from the field of library and information related fields, Jaakkimainen, Schultz, Glazier, Abrahams, and Verma (2012) included three cohorts of family medicine graduates from the University of Toronto, with cohort sizes of 248-306, and utilised existing professional data.

Graduate tracer studies have been noted to have particularly low response rates (Lambert & Miller, 2014). J. S. Senekal (2015), in a review of 18 graduate tracer studies, reported that nine of these studies had response rates lower than 45%, six studies with response rates higher than 46%. The remaining three either did not mention a response rate or used qualitative methods. Higher response rates appeared to be associated with either small sample sizes from a specific university department (under 1000), or very large sample sizes across multiple universities (over 100 000), which indicated a potential link between funding and access to population (J. S. Senekal, 2015). Response rates may range from 18% (Hayati & Muchlish, 2013) to 90% (Varalakshmi, 2006). The reasons for variable response rates in graduate tracer studies have not been consistently reported on (J. S. Senekal, 2015).

In general, quantitative graduate tracer studies used descriptive statistics for analysis, occasionally included some basic comparisons and keyword searches where relevant (J. S. Senekal, 2015). Inferential statistical analysis was included in some instances, yet was less commonly utilised (J. S. Senekal, 2015). There was an indication that methods of analysis may be linked to the size of the sampling frame and the response rate (J. S. Senekal, 2015).

Two examples of studies that utilised inferential statistics had samples of about 14 000, despite low response rates of between 15% and 18.5% respectively (Letseka et al., 2010; North Carolina State University, 2015). A South African study by Rogan, Reynolds, du Plessis, Bally, and Whitfield (2015) included multiple institutions, with a sample of 4 927, a response rate of 43%, and included descriptive and inferential statistical analysis. Two

studies with smaller samples of 857 and 354 respectively focused on single departments, had response rates of 100% and 99.7% respectively and used descriptive and inferential statistical analysis (Jaakkimainen et al., 2012; Lassey, Lassey, & Boamah, 2013). Statistical theory requires a normally distributed sample, which is most likely to be representative of the population, in order to conduct inferential statistical (Bless, Higson-Smith, & Sithole, 2013). A normally distributed sample may be achieved by high response rates, as was the case with the two smaller samples. Additionally, a normally distributed sample may be achieved by accessing a large sample, despite low response rates, to increase the odds of randomised representation. Graduate tracer studies commonly have low response rates, and as such, greater sample sizes would be required in order to conduct inferential analysis of the results. As a result, the inclusion of inferential analysis has not been common to graduate tracer studies, and therefore the results have often been descriptive in nature, including some basic comparisons and keyword searches where appropriate.

### **2.5.2 Graduate tracer study instruments**

As mentioned, measuring graduate attributes has been identified as being particularly difficult, and so an existing list of ‘universal’ attributes that have been used in multiple contexts may provide a good template for adaption to the research setting of interest. An example of a system of measuring ‘universal’ attributes may be seen in the extensive work on graduate tracer study methodologies by Schomburg and the Centre for Research on Higher Education at Work at the University of Kassel (Schomburg, 2003). One of the main outputs of their work has been the ‘Standard Instrument’, outlined below, which has been widely utilised and adapted, of which three adaptations were discussed below (Schomburg, 2003).

The “Standard Instrument for Graduates 1995 Master Questionnaire” was the original instrument developed (Schomburg, 1995) and included questions relating to the course of study; retrospective assessment of studies; job search after graduation; current employment; job requirements and use of qualifications; assessment of employment; further higher education; continuing education and training; socio-biographic data; and concluding comments. It has been used in tracer studies in various countries in Europe, Latin America, Africa and Asia; however, it was adapted to the relevant contexts, as recommended by Schomburg (2003).

The Standard Instrument for Graduates has been adapted to various studies and contexts, including the Association of African Universities 1996 study (Mugabushaka et al.,

2007) which was conducted in 10 African universities in Ghana, Kenya, Malawi, Nigeria, Tanzania, and Uganda. The standard instrument was adapted for the CHEERS study, which was conducted across 11 European countries (Austria, Czech Republic, Finland, France, Germany, Italy, the Netherlands, Norway, Sweden, Spain and the United Kingdom) and Japan (Schomburg & Teichler, 2006). Most recently, the UNITRACE 2010 study was conducted, utilising an adaptation of the instrument, across eight countries, including Ethiopia, Kenya, Costa Rica, Nicaragua, Guatemala, Indonesia, Vietnam and the Philippines (Egesah et al., 2014). It is clear that this instrument has been successfully adapted and utilised for various contexts; however, the Standard Instrument for Graduates has up to this point, not been used in the South African context.

### **2.5.3 International and national trends in graduate tracer studies**

Increased international concern regarding the issue of skills mismatch in tertiary education graduates, informed by the attributes and employability of alumni has led to more interest in the implementation of graduate tracer studies (De la Harpe et al., 2000; Holmes, 2013; Mason et al., 2009; Schwartz, 2014). A review of graduate tracer studies by J. S. Senekal (2015) indicated that there has been a greater prevalence of regular and systematic implementation of graduate tracer studies in the United Kingdom (HESA, 2013), the United States of America (NACE, 2015), and in particular in Australia (Guthrie, 2014). Low response rates were common, and may be due to the commonly raised issue of out-dated or incomplete graduate records and contact details (Aina & Moahi, 1999; Cable, 2013; CHEC, 2013; Gotch, 2008; Hayati & Muchlish, 2013; Shongwe & Ocholla, 2011; Stilwell, 2004).

However, Du Toit et al. (2014) reported that there has been no recent attempt to conduct a broad scale and comprehensive graduate tracer study in South Africa aside from the CHEC (2013) study. The CHEC study was conducted in the Western Cape and surveyed graduates from four of the main universities in the province, two years after their graduation in 2010. The aim of the CHEC study was to identify employment destinations, using an online survey, producing quantitative results that were analysed descriptively with basic comparisons. The CHEC study was the first of its kind in South Africa, in terms of scope (Du Toit et al., 2014) and aside from it, “graduate destination research [has been] highly underdeveloped... and there [has been] no systematic attempt to understand graduate pathways outside of a few sporadic institutionally-based surveys” (CHEC, 2013, p. 7). Furthermore, CHEC (2013) identified that fewer graduate tracer studies have been conducted at historically disadvantaged institutions in comparison to historically advantaged institutions



and attributed this to resource constrictions. The authors of the CHEC report further argued that the minimal number and sporadic institutionally or departmentally based surveys were due to funding and resource limitations in the South African context.

## 2.6 Gaps in the literature

Research on higher education, particularly alumni-based research, has been limited in the South African context, compared to the vast international literature. Research within higher education in South Africa has largely focused on the transition from secondary to tertiary education (Cosser, 2009; Cosser & Nenweli, 2013; Setlalentoa, 2013), as opposed to the transition from higher education into the world of work. The comparatively smaller field of research on the transition from higher education to the workplace tends to be limited to undergraduate populations (Griesel & Parker, 2009; Letseka et al., 2010), with relatively few populations of postgraduate students. The identified lack of focus on postgraduate alumni in higher education research in the South African context was highlighted by Albertyn et al. (2008). Research involving the transition from higher education to the workplace has often been limited to immediate, institutional programme assessment (CHEC, 2013). There has also been relatively limited research on graduate employability or the long-term employment trends in the South African context, despite the increased national and international interest in improving graduate employability. Internationally, there has been relatively low implementation of graduate tracer studies, despite the interest therein and proven utility thereof. In the South African context, graduate tracer studies have been conducted sporadically, and with notably less implementation in historically disadvantaged institutions (CHEC, 2013).

Psychology graduates may be considered vulnerable in terms of retention, throughput and accessing employment (Ahmed & Pillay, 2004; Kagee & O'Donovan, 2011; Offord, 2016). The vulnerability of psychology graduates is of particular concern, given the identified scarcity of psychological practitioners to service the mental health care needs of South Africans (Cooper, 2014; Mashigo, 2017; A. L. Pillay & Kramers-Olen, 2014). Additionally, psychology graduates from professional Masters programmes have not been the focus of a tracer study, particularly not in the South African context. The present study attempted to address these gaps, by surveying graduates with Masters degrees in clinical and research psychology from a historically disadvantaged institution, focusing on their

employment and employability profiles, as well as an assessment of their university experiences.

### 3 Theoretical Framework: Employability

It has been uncommon for graduate tracer studies to explicitly use a theoretical framework. The study by De Guzman and De Castro (2008) was one of the few exceptions. There have been various frameworks developed for studying employability, as mentioned in the literature review. These frameworks are still largely based on the narrower definition of employability, with few operationalising the broader definition of employability. The present study used a conceptual framework of employability to inform the groupings of employability skills in the study.

#### 3.1 Broad model of employability (McQuaid & Lindsay, 2005)

A key focus of the model presented by McQuaid and Lindsay (2005) was that employability, and by extension employment and unemployment, was neither solely due to supply or demand factors, but was rather an interaction between both factors. The model took the changing labour market, employer needs, customer perceptions and competition into account, as the interaction of these aspects with the individual's attributes and competencies would determine relative and changing employability based on context (McQuaid & Lindsay, 2005). The framework was presented by grouping various influencing factors into three groups: individual factors, personal circumstances and external factors. A tabularised representation of these factors may be found in Table 1 below, summarised from McQuaid and Lindsay (2005).

Table 1. *Employability Framework Summary*

Individual factors	Personal circumstances	External factors
Employability skills and attributes	Household circumstances	Demand factors
<ul style="list-style-type: none"> <li>• Essential attributes</li> <li>• Personal competencies</li> <li>• Basic transferable skills</li> <li>• Key transferable skills</li> <li>• High level transferable skills</li> <li>• Qualifications</li> <li>• Work knowledge base</li> <li>• Labour market attachment</li> </ul>	<ul style="list-style-type: none"> <li>• Direct caring responsibilities</li> <li>• Other family and caring responsibilities</li> <li>• Other household circumstances</li> </ul>	<ul style="list-style-type: none"> <li>• Labour market factors</li> <li>• Macroeconomic factors</li> <li>• Vacancy characteristics</li> <li>• Recruitment factors</li> </ul>
Demographic characteristics	Work culture	Enabling support factors
Health and well-being	Access to resources	<ul style="list-style-type: none"> <li>• Employment policy factors</li> <li>• Other enabling policy factors</li> </ul>
	<ul style="list-style-type: none"> <li>• Access to transport</li> <li>• Access to financial capital</li> <li>• Access to social capital</li> </ul>	

- 
- Health
  - Disability
- Job seeking  
Adaptability and mobility
- 

### 3.1.1 Individual factors

The individual factors identified in the framework comprise of employability skills, demographic characteristics, health, job seeking and adaptability. The employability skills and attributes identified were comparable to the narrow definition of employability's skills and attributes. McQuaid and Lindsay (2005) broke these skills down into various types of attributes, competencies and skills including: essential attributes (honesty and integrity, responsibility), personal competencies (initiative), basic transferable skills (written and verbal presentation), key transferable skills (problem-solving, team work, computer skills, communication skills), high level transferable skills (continuous learning, job-specific skills), qualifications (formal and job-specific), work knowledge base (work experience) and labour market attachment (un/employment status and duration). These factors represented the supply of graduates with these attributes into the labour market. However, the framework also considered other individual factors, such as demographic characteristics and health, which may mediate access to certain employment opportunities. Demographic factors interact with the demand factors of employer preferences outlined under external factors. For example, the Black Economic Empowerment (BEE) initiative, an enabling support factor, which aims to ensure increased opportunity for previously disadvantaged populations in South Africa, may increase access for certain population groups, and decrease access for others. It is therefore the interaction of ability and demographics that determine one's access to employment, and therefore one's employability. Another individual factor identified by McQuaid and Lindsay (2005) was job seeking, including various methods utilised and the appropriateness and efficiency of these methods. Job seeking interacts with how employers advertise positions, which were outlined under external factors. The last individual factor was adaptability and mobility, which determined the location in which one can work, and the type of job one can hold, based on wage and time requirements. Again, the interaction between factors showed that appropriate employment may be determined by location and remuneration, according to one's needs, despite the skills one possesses.

### 3.1.2 Personal circumstances

Personal circumstances considered the effect that household circumstances of an individual have on his or her employability. For example, having dependent family members

for which one is responsible may limit the time one has for employment, or increase the financial pressure to attain an appropriately paying job, sometimes at the expense of furthering one's education. Personal circumstances also consider the social support provided by family, friends and the community in the pursuit of employment. Social support may interact with one's demographics, regardless of one's ability, deterring the pursuit of employment. For example, traditional cultural norms may suggest that females should remain at home and care for the family and that males should pursue studies and/or employment. Regardless of ability or interest, these cultural norms may affect un/employment and therefore employability. Furthermore, one's personal access to resources may affect employability, in terms of access to transport, financial capital and social capital. Access to resources interacts with mobility to access the work place, family obligations and roles, and social support given regarding pursuit of employment.

### **3.1.3 External factors**

External factors were broken into two groups: demand factors and enabling support factors. Demand factors consider the state of the labour market, in terms of demand for certain skills and industry locations, as well as the influence of the local economy. Demand factors also included what positions were available, including remuneration, work conditions and type of work, recruitment strategies taken by employers, employer preferences, and discrimination, which interacts with personal demographic characteristics. Enabling support factors included policies in place to support access to employment, for example, the BEE initiative mentioned above, as well as accessibility and affordability of public transport and child care.

## **3.2 Application of framework**

This model integrated both supply and demand factors which affect un/employment, and thus employability, including individual factors, personal circumstances and external factors, particularly noting that it was the interaction of these factors that determined the enabling and deterring factors affecting each individual's employability. The model was considered appropriate for the present study, given the complex nature of un/employment in the South African context. The model was used to inform the selection of the instrument, to ensure that relevant scales and items were included to adequately address the various factors presented in the model. The model was used in a nominal sense to formulate explanations of

the findings. The application of this model was spoken to in the relevant methodological and discussion sections.

## **4 Methodology**

### **4.1 Aim of the study**

The aim of the study was to determine the employment patterns and the employability profiles of alumni from structured professional psychology Masters programmes.

### **4.2 Objectives of the study**

1. To establish a demographic profile of the alumni
2. To determine the employment destinations of the alumni
3. To determine the perceived relevance of skills training to the working environment
4. To determine the percentage of eligible graduates who have completed registration as health professionals
5. To establish the alumni's attitude towards their alma mater

### **4.3 Research question of the study**

What are the employment patterns and the employability profiles of alumni from structured professional psychology Masters programmes?

### **4.4 Research setting**

After the end of Apartheid, many sectors of South African society were reviewed, and transformation initiatives set in place to rectify systemic problems. One area of redress was that of higher education. An initiative was undertaken to merge institutions, which typically entailed smaller institutions being absorbed by larger institutions (Martin & Roodt, 2008). Changes in student enrolments, increasing in some institutions and decreasing in others, compounded the existing financial strain these institutions were under (DoE, 1997; Harman & Meek, 2002). Additionally, the need to address the racialised inequality present in the higher education system was considered (Schoole, 2005). There remained some

institutions that did not merge. The repercussions for these institutions were twofold: (1) increased resource constriction for HDIs and (2) the lack of national demographic representation at historically advantaged institutions (Martin & Roodt, 2008). HDI student populations have been noted to be more aligned with the national targets for higher education, with majority Black and Coloured students and attracting many first-generation students from previously disadvantaged backgrounds, according to the Department of Higher Education and Training (DHET, 2012).

A specific historically disadvantaged higher education institution was selected as the research setting for the present study, due to its unique location as one of the few HDIs which did not merge with another institution post-Apartheid, and its categorisation as a research-intensive institution. The institution attracts more historically disadvantaged individuals and first-generation students, thus being a key focus for investigating issues of retention, throughput and transition for this key population. The present study focused on a single department from within the selected higher education institution, which was in line with the recommendation of J. S. Senekal (2015) for future tracer studies, in order to accommodate both depth of study and financial viability.

The Psychology Department was selected from this institution, due to the scarcity of registered psychological professionals (Cooper, 2014; Mashigo, 2017; A. L. Pillay & Kramers-Olen, 2014). The scarcity of professionals, coupled with the identified vulnerability of psychological graduates in terms of retention, throughput and accessing employment, informed the choice of the Psychology Department for the present study (Ahmed & Pillay, 2004; Kagee & O'Donovan, 2011; Offord, 2016). Two structured Masters degrees orientated towards professional registration, namely the Masters degree in clinical psychology and the Masters of Arts in research psychology were selected.

The Masters degree in clinical psychology entails a year of fulltime structured coursework and practicum, followed by a year of internship at an accredited site. The completion of a mini-thesis is also required for graduation. Thereafter, registration with the HPCSA as a clinical or counselling psychologist is possible (M. Smith, personal communication, January 10, 2017). The Master of Arts in research psychology entails a structured programme offered fulltime only, with one year of coursework, followed by one year of internship in a research setting. A mini-thesis is also required for completion of the degree. Thereafter, registration with the HPCSA as a research psychologist is possible (M. Smith, personal communication, January 10, 2018). The average intake rates for both Masters

programmes are on average eight students per programme per academic year, with an average of 85% completion per programme (M. Smith, personal communication, January 20, 2018).

#### 4.5 Research design

A graduate tracer study method was selected for use in the present study, as it facilitated the tracking of alumni after graduation (CHEC, 2013; Mubuke et al., 2014). Furthermore, the common purposes and foci of graduate tracer studies, namely employment destinations, employability and evaluation of training, aligned with the objectives of the present study (Cabrera et al., 2003; Schomburg & Teichler, 2006). A graduate tracer study method also aligned with the employability framework presented by McQuaid and Lindsay (2005), in terms of assessing and gathering information regarding individual factors, personal circumstances and external factors. Graduate tracer study methodologies have been successfully utilised in the South African higher education context, albeit to a limited extent (Du Toit et al., 2014).

A survey design was used for the present study, in accordance with the most commonly used design of graduate tracer studies (Mubuke et al., 2014). The survey research design has been identified as a multidisciplinary method, and has frequently been used within social science research (Gideon, 2012). Surveys may be classified by their mode, population, or information collected, and as such, there are many different ‘types’ of surveys (Stoop & Harrison, 2012). The most notable characteristic of a survey is that only a sample of the population is studied, in order to generalise from a smaller group to the broader population (Gideon, 2012; Stoop & Harrison, 2012).

The mode by which a survey may be administered to the sample has most often been used to differentiate between survey ‘types’ (Stoop & Harrison, 2012). Surveys may be conducted through an interview mode, either face-to-face or telephonically, or they may be self-administered, usually delivered in the post or online, but may also be distributed in person (Gideon, 2012; Stoop & Harrison, 2012). The present study used an online self-administered mode to facilitate ease of access to more of the sampling frame (Azar, 2000). The target population of the present study was alumni of two professional Masters programmes, who were highly likely to have Internet access and online capabilities given their postgraduate education level (Fricker & Schonlau, 2002). An online mode has the benefit of being relatively fast and cheap, allowing participants to complete the survey when it suits them, and with increased anonymity, as there was no direct contact between the

researcher and the participants (Robson, 2011). The online survey platform Survey Monkey was used which further allows for confidentiality and anonymity to be ensured (<https://www.surveymonkey.com/mp/policy/anti-spam-policy/>). Survey Monkey has been used successfully by Masters level students for their theses, for example, J.-P. Senekal (2014) and Nel (2016).

The time frame over which a survey may be conducted constitutes another differentiating characteristic. The present study was cross-sectional, collecting data from the sample at one point in time, with no intention of follow-up (Evans & Mathur, 2005). A cross-sectional design was chosen as it provided a 'snapshot' of the current state of employment of the alumni, and given that there was no intention for follow-up, and was cheaper to conduct than a longitudinal study (Weisberg, 2005). Thus, the choice of a survey design in the present study was consistent with the typical and frequent use of surveys in graduate tracer studies.

It is important to consider response rates in graduate tracer studies, as survey designs and graduate tracer studies notably struggle with low response rates. Literature attributed the lower response rates in graduate tracer studies to incomplete and inaccurate alumni contact details as a common difficulty that in turn leads to undelivered contact appeals (Hayati & Muchlish, 2013; Lambert & Miller, 2014). For survey research in general, Babbie (2011) concluded that there has been no consensus on response rates for surveys and recommended that a minimum response rate of 50% sufficed for data collection and generalisation. The present study incorporated three strategies for increasing the response rate: (1) compiling as complete a sampling frame as possible, (2) incentivising through a lottery to win book vouchers, and (3) a schedule of repeated mailings and invitations until no change in response rate resulted. A relatively complete sampling frame was compiled by collating the graduation records, from the identified years and degrees. The sampling frame was then consolidated against the existing records of alumni from the Psychology Department and supplemented by the respondents. The incentives offered were in the form of three book vouchers. A lottery process of those who had successfully completed the survey was conducted twice while the survey was live, each time for R150 book vouchers, and with one final lottery for a grand prize of a R500 book voucher once the survey had closed. A schedule of repeated mailings involved reminding those who had started but not completed the survey as well as those who had not started the survey. Reminders were sent weekly to respondents over the two months that the survey was active, resulting in a total of eight reminders. The minimum number of



reminders was four, as new participants were invited throughout the first month that the survey was active. 'Thank you' emails were sent to all participants that completed the survey.

#### **4.6 Participants and sampling**

The population of the present study included graduates from two structured psychology Masters programmes, namely clinical and research psychology, at a historically disadvantaged institution. Psychology graduates constitute a vulnerable group as they undergo strenuous postgraduate selection processes, and as high attrition rates were identified, many graduates may exit higher education without a profession (Richter et al., 1998). Additionally, graduates with psychological degrees have been noted to pursue private practice, thus having to create their own work rather than access existing positions (Cooper, 2014; NPC, 2011b). An inclusion criterion of graduation date was used, limiting the population to those who graduated between 2008 and 2014. The time-frame was chosen based on the recommendation by Purcell and Elias (2004) that a minimum of two years post-graduation provides a clearer view of career movements and employment destination trends compared to initial employment after graduation, which have rarely been a good indicator of career trajectory. Based on public graduation records, which were incomplete for 2014, the total population was estimated to be 113, made up of 58 clinical alumni and 55 research alumni. This equates to approximately 9 graduates from each programme per year. The sampling frame comprised of those alumni whose contact details could be obtained, based on supplemented departmental records. These records proved to be difficult to confirm, despite various efforts to attain as complete a sampling frame as possible, with a resultant sampling frame of 51.33% of the population (58 of 113).

Stratified random sampling was used, with the two Masters programmes as the two strata, ensuring that participants only fell into one stratum (Robson, 2011). Each of the programmes was randomly sampled, proportionately reflecting the broader population, aiming for a minimum of 30% of each stratum represented based on the average response rate for online surveys (Dommeyer, Baum, Hanna, & Chapman, 2004; Nulty, 2008). The advantage of using qualification to stratify allowed for greater representativeness of the two qualifications resulting in a more representative sample of professional psychology Masters graduates as a whole (Durrheim & Painter, 2006). The target sample size was set at a minimum of 30% per stratum and 50% of the overall sampling frame. The target sample size was based on the average response rates for surveys and the requirements for parametric

statistics (Babbie, 2011). The resultant sample size was 29, with 13 from the clinical programme and 16 from the research programme. The sample size was below 50 cases, which suggested that analyses should be cautiously conducted and referenced against z-distributions that are more consistent with non-parametric statistics (Field, 2009).

#### **4.6.1 Response rates**

A total of 29 valid responses were received from both groups. This constituted a 50% response rate, from the initial 58 contactable alumni, which is higher than the average response rates reported for surveys in general and graduate tracer studies in particular (Babbie, 2011; Lambert & Miller, 2014; J. S. Senekal, 2015). Additionally, the 50% response rate supported Babbie's (2011) recommendations of robustness for analysis. The clinical programme had 13 of a possible 29 responses, indicating a 44.83% response rate. The research programme had 16 of a possible 55 responses, indicating a 55.17% response rate. The response rates per stratum were higher than the targeted 30%, and the overall target of 50% was met. Without access to accurate registration and completion lists, it was difficult to determine whether the sample was representative of the population. Given that the sample was 50% of the sampling frame, which in turn was 51.33% of the population, a resultant 25.66% of the population was represented in the present study. The representation of the population was high, particularly for a graduate tracer study; however, without more detailed records of alumni, it was not possible to determine how representative the sample actually was.

#### **4.7 Instrument**

The present study used the Standard Instrument for Graduates (Schomburg, 1995), as adapted in the UNITRACE study (Egesah et al., 2014). The instrument additionally used some of the item adaptation from the CHEERS study (Schomburg & Teichler, 2006) and the AAU study (Mugabushaka et al., 2007). The various adaptations of the standard instrument have been used extensively in multiple contexts and have been recommended for use with student populations in developed and developing countries (Schomburg & Teichler, 2006), as mentioned in the literature review. No existing psychometric properties were able to be identified. The instrument was further adapted, as recommended by Schomburg (2003), to ensure relevance to the South African context, and to the professional psychology programmes. The author, H. Schomburg, granted permission to modify and use the instrument in the present study (Appendix A).

The standard instrument covers the following topics: the course of study; retrospective assessment of studies; job search after graduation; current employment; job requirements and use of qualifications; assessment of employment; further higher education; continuing education and training; socio-biographic data; and concluding comments. Sections and items relevant to the employability framework were extracted and compiled into a draft composite instrument. Basic editing for relevance to the South African context was conducted, including wording and the use of standard tax income brackets. Thereafter, the draft survey was loaded onto Survey Monkey. The draft instrument was tested by three individuals, using both laptop and cell phone mediums, to ensure that both were feasible modes of access. The instrument was edited for grammar and wording, as well as for structure, with the removal of sections and items, based on refined relevance. The updated instrument was tested by two individuals and subjected to final editing.

#### **4.7.1 Final instrument**

The final instrument was divided into seven sections labelled A to G. Section A included the consent form, in which respondents were asked whether they agreed to participate in the study. If the negative was selected, the respondent was taken to an exit screen and they completed no more of the survey. If a positive answer was provided, respondents continued to section B, which covered demographic information.

Section B of the survey contained eight questions regarding the demographic characteristics of respondents. B1 asked about gender, with response options for female and male, and an open response option for 'Other'. B2 asked for year of birth, which was used to calculate approximate age in 2017, as well as age at enrolment for and graduation from the Masters programme in question. B3 asked for civil status, including the following response options: married, divorced, single or unmarried, separated, with partner, widow(er) and an open response option for 'Other'. B4 asked for nationality, with response options including South Africa, Namibian, Zimbabwean and an open response option for 'Other'. B5 asked for current area of current residence, with response options for South Africa and an open response option for 'Abroad'. B6 asked for province of current residence, if residing in South Africa, including each of the nine South African provinces and a 'not applicable' response option if the respondent was currently residing abroad. B7 and B8 asked about the education level attained by respondents' mother and father, including the following response options for each parent: without education, incomplete primary school, complete primary school, incomplete high school, complete high school, incomplete technical level, complete technical

level, incomplete higher education, complete higher education, incomplete postgraduate, complete postgraduate, unknown, and an open response option for 'Other'. B9 asked for details about the highest degree level attained from the university in question, including degree level, year started (registration), year completed (graduation), department/school and major/specialisation. Response options for degree level included Bachelors, Honours, Masters and Doctorate degree (PhD) (to identify and account for any out of scope respondents), department or school included psychology or 'Other', and major or specialisation included clinical, research, counselling and 'Other'. The same group of variables was obtained for the highest degree qualification, regardless of institution. The degree level indicated was used to ascertain whether respondents had completed studies beyond the Masters degree level at an institution other than the one in question.

Section C covered the relationship between study and work, in the form of five scales and one follow up question. In section C, respondents were asked to rate the extent to which they possessed a list of 25 competencies at the time of graduation (C1), the extent to which the university contributed to these competencies (C2), and the extent to which these competencies were utilised in their subsequent employment (C4). All three of these were rated on five-point scales, anchored on the lower end with 'not at all' and on the upper end 'to a very high extent'. In question C3, respondents were asked to rate the extent to which their study programme at university had been a good basis for starting work, further learning on the job, performing current work tasks, potential/future career(s), personal development and the development of entrepreneurial skills. The question was rated on a five-point scale, anchored on the lower end with 'not at all' and on the upper end by 'to a very high extent'. In question C5, respondents were asked to rate the extent to which their field of study related to their area of work. The question used a five-point scale, anchored on the lower end by 'not at all' and on the upper end by 'to a very high extent'. A follow up question (C6) asked respondents to indicate why they took up this work, if they felt that it was unrelated to their training. Multiple response options were allowed, from the 12 provided, including an open response option for 'Other'. An option indicating that the respondent did consider their job closely linked to their studies was also provided.

Section D assessed marketability and included three scales. In question D1, respondents were asked about the methods that were useful in their search for employment. Multiple response options were allowed, with 11 response options provided, as well as an open response option for 'Other'. In question D2, respondents were asked to rate the

importance of 12 aspects for increasing their marketability in the workplace. The question was rated on a five-point scale anchored on the lower end by ‘not at all important’ and on the upper end by ‘very important’. In question D3, respondents’ perceptions of continued professional development (CPD) were assessed. Respondents were asked to indicate their agreements with 15 statements, on a three-point scale, anchored on the lower end by ‘disagree’ and on the upper end by ‘agree’.

In section E, respondents were asked to provide information about their most recent or current employment post-graduation. In question E1, they were asked what their current dominant activity was, with the following response options: employed, self-employed, not employed and seeking employment, professional training, advanced academic study, child rearing or family care, and an open response option for ‘Other’. In question E2, respondents reported on the field in which they work or have most recently worked. Response options included basic education, higher education, early child development, policy, corporate, social services, social development, health and an open response option for ‘Other’. In question E3, respondents were asked to indicate the category into which their current or most recent employer or institution fell, including the following response options: public, non-profit or non-governmental, private, self-employed, and an open response option for ‘Other’. In question E4, respondents were asked to indicate which tax income bracket their current annual income fell. In question E5, respondents were asked to indicate the number of positions they held before being appointed to their current position, excluding positions held for less than six months, positions that were less than 50% part-time employment and positions held prior to completion of most recent university training. In question E6, respondents were asked to indicate their registration status with the HPCSA. Response options included not eligible and not registered with the HPCSA; eligible, but not registered with the HPCSA; and eligible and registered with the HPCSA. Thereafter in question E7, respondents were asked to indicate which category of registration they were eligible for, which included the following response options: “not applicable – I am not eligible for registration with the HPCSA”, student, intern, community service, clinical, research, counselling, and an open response option for ‘Other’.

Section F concerned a retrospective assessment of study at the university in question, which contained two scales. In question F1, respondents were asked to rate 17 aspects of their university experience, on a five-point scale with end-labelling of ‘very bad’ at the lower end and ‘very good’ at the upper end. A ‘not applicable’ option was provided as

well. In question F2, respondents were asked to rate the overall usefulness of their studies for finding an adequate job after finishing studies, fulfilling present professional tasks, future professional development or career, personality development, and the economic development of their country. These were rated on a five-point scale, anchored on the lower end with 'not at all useful' and on the upper end with 'very useful'.

Section G contained a single open-ended question in which respondents were asked whether they had any further comments regarding the relationship between their study programme and employment. The origin and adaptation of sections and items included in the final instrument were described in Appendix B. The final instrument may be found in Appendix C. Note that the formatting was slightly different than can be shown in text only, as the use of the Survey Monkey functions allowed for alternative formatting.

#### **4.7.2 Alignment with theoretical framework**

The instrument was selected and adapted to ensure that it appropriately aligned with the theoretical framework of the present study. The alignment between the questions in the instrument and the factors outlined in McQuaid and Lindsay (2005) employability framework was discussed below.

**Individual factors.** McQuaid and Lindsay (2005) identified five groupings of employability skills and attributes, which included essential attributes, personal competences, basic transferable skills, key transferable skills and high-level transferable skills. At least two of the skills or attributes from the five groupings listed were included in the list of competencies in the survey (C1, C2, and C4). The essential attributes included integrity and responsibility. Personal competences included initiative and working independently and may additionally include leadership skills and negotiation skills. Basic transferable skills included the ability to write reports and documents and the ability to present ideas and information. Key transferable skills included computer and internet skills, communication, problem solving, project or programme management, team work, time management and critical thinking. Additionally, analytical ability, learning ability, working under pressure, and working with people from different cultures and backgrounds may be located as key transferable skills. High-level transferable skills included the ability to continuously learn and team work ability again. Research skills may also be included as high-level transferable skills. As such, the competencies measured in the scales of the survey may be aligned to McQuaid and Lindsay (2005) list of employability skills and attributes. Under the heading of employability skills and attributes, McQuaid and Lindsay (2005) also identified

qualifications, work experience, and employment history. These factors align with the question about level of education (B9) and details about current or most recent employment (E1-3).

McQuaid and Lindsay (2005) included basic demographic attributes, such as age and gender, under individual factors. These directly align with the demographic questions included in the instrument, specifically gender (B1) and age (B2). Additional demographic questions included were those of marital status (B3), nationality (B4) and current area of residence (B5-6).

McQuaid and Lindsay (2005) identified various aspects under job seeking, including ability to search for employment, awareness of networks available, ability to apply for and interview for positions, awareness of labour market dimensions, and which jobs were targeted. Not all of these aspects were addressed in the instrument. The ability of graduates to access employment after graduation was assessed in C3 and F2. The types of methods identified as useful in searching for employment were assessed in D1.

Adaptability and mobility were not explicitly investigated. However, it may be explored under C6, which assessed reasons for pursuing employment that appears unrelated to the field of study. Options included locality, flexibility, and income, which align with McQuaid and Lindsay (2005) definition of adaptability and mobility.

**Personal circumstances.** Household circumstances were not directly investigated but may be indicated in various sections of the instrument. For example, C6 provided a response option indicating family responsibilities as the reason for pursuing work that was less related to the field of study. The current dominant activity of respondents (E1) also included a response option for child rearing and/or family care. These questions aligned with how McQuaid and Lindsay (2005) defined family responsibility as being an influencing factors in terms of employability.

Work culture was not explicitly investigated, as there were no items in the various versions of the Standard Questionnaire that linked to this aspect. The question that may provide some insight into existence of a supportive work culture was that regarding parental educational level (B7-8). However, parental education level aligns more closely with social capital, addressed under the next heading.

McQuaid and Lindsay (2005) identified various resources that could interact to affect employability. Financial capital may be broadly assessed using the tax income brackets

investigated in E4. Social capital may be assessed using parental educational level (B7-8), according to CHEC (2013) and Tomlinson (2017).

*External factors.* The focus of the present study was on the perspectives and experiences of graduates. As such, the description of the external factors influencing employability was limited, with the exception of where this could be extrapolated from literature and the individual and personal factors explored above.

#### **4.8 Procedure**

The research project for the present study was assessed and approved by the Senate Research Committee and the Senate Higher Degrees Committee of the University of the Western Cape. Permission to conduct the survey was granted by the Registrar and Head of Department. A list of postgraduate alumni from the structured clinical and research psychology Masters programmes who graduated between 2008 and 2014 was compiled. The sampling frame was compiled through the use of public graduation records, which were consolidated against the department's existing list of alumni, and further completed using staff member's personal contacts with alumni. In an attempt to ensure a complete sampling frame, respondents were requested to provide any updated contact details that they had for their classmates. The survey was administered through the online application, Survey Monkey. Given the Protection of Private Information Act, a representative of the Psychology Department sent out an invitation to those on the compiled list. The invitation included a brief description of the study, and a link to the survey. It was clearly indicated that by clicking on the link, the individual was agreeing to participate. Their right to withdraw at any time was also clarified. Through the use of Survey Monkey, the researcher had no access to the personal details of the participants. The application allowed for automated reminders to be sent, without disclosing who these were being sent to. The application thus further protected the anonymity of the participants and ensured that the Protection of Private Information Act was not violated.

The survey went live on 29 March 2017, with the Psychology Department representative sending invitations to the alumni in the sampling frame. Reminders were sent once a week thereafter to those who had not responded to the invitation or had not completed the survey, until there was no increase in response rates due to the reminders. Two incentives, R150 book vouchers, were provided during the time that the survey was live, with the announcement of the winners sent along with the reminders. A final email, in which the



grand prize winner of a R500 book voucher and the close of the survey were announced, was sent on 18 May 2017. Thereafter, the survey was closed. The data was extracted and cleaned. Incomplete responses and respondents who were out of scope in terms of degree level and year of completion were excluded. The data was then analysed using the Statistical Package for the Social Sciences (SPSS) version 24.

## **4.9 Data analysis**

### **4.9.1 Internal consistency**

Internal consistency has been used as a measure of reliability and is essentially the extent to which a scale consistently measures a concept (Field, 2009). Internal consistency may be measured using Cronbach's Alpha, which ranges from no internal consistency (0) to complete internal consistency (1). Cronbach's Alpha may be affected by the number of items in a scale; hence, the acceptable range of has been disputed. Alpha scores of about 0.70 have generally been taken as an acceptable minimum for satisfactory internal consistency (Field, 2009). Tests for internal consistency were conducted for each scale included in the present study, to determine the reliability of the various scales used.

### **4.9.2 Descriptive statistics**

Descriptive statistics were used to give an overview of the data, through the use of frequency distributions and measures of central tendency (Field, 2009). These results provided the demographic, education and employment profiles of the respondents, as well as descriptions of the relationship between study and work and attitudes towards the alma mater.

### **4.9.3 Chi-square**

Chi-square statistic may be used to analyse categorical variables, using contingency tables, comparing expected and actual frequencies (Field, 2009). Chi-square analysis is intended for use to determine whether the model (expected frequencies) differs significantly from the observed or actual frequencies. Two assumptions exist for the chi-square test: independence of data and a minimum expected frequency of five for each category, with the risk of decreased power, and thus the potential to miss a significant result if this is violated (Field, 2009). The second assumption was not met for the attempted chi-square test, outlined below. The question of interest was whether there was a significant difference between the two Masters programmes, based on the reported HPCSA registration status. The variables of interest were two categorical variables: HPCSA registration status (registered or not registered) and Masters programme (clinical or research). The null hypothesis was that there

was no significant difference between these two variables, which would be shown by a non-significant chi-square. The alternative hypothesis suggested that there was a connection between these two variables, which would be shown by a significant chi-square. Chi-square analysis was initiated using HPCSA registration status and Masters programme to test whether these two variables were related. Table 1 below presented the cross-tabulation of registration status by programme.

Table 2. *Cross tabulation of HPCSA Registration Status and Masters Programme*

			Programme		
			Clinical	Research	Total
Registration status	Not registered	Count	1	6	7
		Expected count	3.1	3.9	7.0
		% within Registration status	14.3%	85.7%	100.0%
		% within Programme	7.7%	37.5%	24.1%
		% of Total	3.4%	20.7%	24.1%
	Registered	Count	12	10	22
		Expected Count	9.9	12.1	22
		% within Registration Status	54.5%	45.5%	100%
		% within Programme	92.3%	62.5%	75.9%
		% of Total	41.4%	34.5%	75.9%
Total	Count	13	16	29	
	Expected Count	13	16	29	
	% within Registration Status	44.8%	55.2%	100%	
	% within Programme	100%	100%	100%	
	% of Total	44.8%	55.2%	100%	

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Table 1 showed that the expected count for those not registered in the clinical programme was below five. A count below five in one of the categories indicated that running a chi-square test may not show significant results, if they do exist, due to reduced power and increased risk of type II error (Field, 2009). As such, the Chi-Square analysis was not conducted, as the data did not support the analysis.

#### 4.10 Ethics

Ethics clearance and project registration were obtained from the Senate Research Committee at the University of the Western Cape in order to conduct the study (see Appendix D). Permission to conduct the study using alumni from the specified university was requested from and granted by the Registrar (Appendix E) and Head of Department.

An information sheet with a description of the study, its purpose, what participation entailed and who to contact with any further queries or concerns was sent to each participant

(see Appendix F). Consent was attained electronically, and it was explained that by clicking the link to the Survey Monkey page, the participants were agreeing to participate. Varnhagen et al. (2005) recommended using a link that represented acceptance of the information provided, and agreement to participate in the study. However, the additional inclusion of an informed consent question as the first question (A1) in the survey further ensured that participation was informed, consenting and voluntary. The first question also clarified that respondents had the right to withdraw at any stage without fear of any negative consequences.

Participants were informed that they would remain anonymous at all stages of the research, including the dissemination of the thesis, and any conference presentations or article published thereafter. As mentioned above, Survey Monkey enables one to send reminders without direct access to the email addresses of participants, ensuring respondent anonymity.

## 5 Results and Discussion

The results and discussion were presented together, in order to facilitate ease of reading and understanding. The first section of the results contained the internal consistency of the scales used in the final instrument. Thereafter, the results and discussion were structured according to the structure of the final instrument.

### 5.1 Reliability: Internal consistency

The data generated by the current sample was analysed to determine the reliability of the instrument with the current sample. Table 3 below reflected the internal consistency of scales in the final instrument used in the present study, as measured by Cronbach's Alpha.

Table 3. *Internal Consistency of Scales*

	Items	Responses	Excluded	Cronbach's alpha
University's contribution to competencies	25	29	0	.96
Competencies at graduation	25	29	0	.95
Utilisation of competencies at work	25	29	0	.93
Benefit/foundation provided by studies	6	29	0	.85
University rating (excl. accommodation)	16	21	8	.84
Usefulness of studies	5	29	0	.84
CPD attitude	15	29	0	.76
To increase marketability	12	28	1	.72

As seen in Table 3, internal consistency scores above .70 were reported for all the scales included in the questionnaire. These alpha values suggested that the measure was reliable within the current sample (Field, 2009). These scales thus consistently measure their underlying concepts. Cronbach Alphas above .90 were reported for the three scales measuring competencies. These scores were very high and indicative of robust scales that would be suitable for use in psychological research (Field, 2009). The marketability scale and the CPD attitude scale reported the lowest internal consistency scores of .72 and .76 respectively. These two scales were adapted to a greater extent than the other scales for the present study to suit the South African context and the discipline of psychology. The alpha levels of these scales were still both above .70 and were deemed reliable in the sample. Thus, the modifications to the scale did not impact the internal consistency adversely. It must be noted that these revised scales should be examined more closely to increase their internal consistency in future research.

The internal consistency of the scales indicated that the instrument was reliable for the sample in the present study despite the small sample size. The internal consistency of the scales may be an indication that the present instrument may be reliably used within the population of psychology Masters graduates at the university in question.

## 5.2 Demographic results

The respondents provided demographic information concerning their gender, age, civil status, nationality, current area of residence and parental education level. Table 4 outlines these demographic results, excluding age and parental education level. The findings included subtotals per response option and were presented per programme for the alumni from the clinical and research programmes.

Table 4. *Demographics of Clinical and Research Respondents*

		Clinical (n=13)	Research (n=16)	Total (N=29)
Gender	Female	7	14	21
	Male	5	2	7
	Non-conforming	1	0	1
Civil status	Married	6	8	14
	With partner	4	0	4
	Single or unmarried	3	7	10
	Separated	0	1	1
Nationality	South African	12	14	26
	Zimbabwean	0	2	2
	Namibian	1	0	1

Current residence	South Africa	Western Cape	10	14	24
		Gauteng	1	1	2
		KwaZulu-Natal	0	1	1
	Abroad	Namibia	1	0	1
		Middle East	1	0	1

From Table 4, it was evident that both groups were predominantly female ( $n_c=7$ ,  $n_r=14$ ). There were more male respondents from the clinical programme ( $n_c=5$ ) than the research programme ( $n_r=2$ ). Ten of the clinical respondents were in a relationship, with six married and four with a partner. The remaining three were single or unmarried. Half of the research respondents were married ( $n_r=8$ ), seven were single or unmarried, and one was separated. Most of the respondents in each group were South African citizens ( $n_c=12$ ,  $n_r=14$ ). The remaining respondents were from the Southern African Development Community region (SADEC). This included one Namibian from the clinical programme and two Zimbabweans from the research programme. Most of the respondents were currently residing in the Western Cape in South Africa ( $n_c=10$ ,  $n_r=14$ ).

The parental education levels of the respondents were tabularised and presented per programme. Table 5 presented the parental education levels for the clinical and research respondents. The unit of analysis was whether higher education training had been completed.

Table 5. *Frequency Table of Parental Education Level for Clinical and Research*

*Respondents*

		Clinical ( $n=13$ )	Research ( $n=16$ )	Total ( $N=29$ )
Maternal education level	Less than complete higher education	7	10	17
	Completed higher education or higher	6	6	12
Paternal education level	Less than complete higher education	6	10	16
	Completed higher education or higher	7	6	13

As shown in Table 5, about half of the mothers of the clinical respondents had not completed higher education and had varying education levels below that ( $n=7$ ). The remaining mothers of the clinical respondents ( $n=6$ ) had completed higher education or postgraduate training. Similarly, six of the fathers of the clinical respondents had not completed higher education training, with varying lower education levels. Seven of the fathers of the clinical respondents had completed higher education training or postgraduate training. For both the mothers and the fathers of the research respondents, ten each had not completed higher education training, with varying lower education levels achieved. The remaining six mothers and fathers had completed higher education training or postgraduate

training. The data for maternal and paternal education were cross-tabulated in order to identify first-generation students. Table 6 below presented the interaction of the parental education levels for the clinical and research respondents, grouped according to whether both parents had or had not completed higher education training, or whether one had and the other had not.

Table 6. *Interaction of Parental Education Levels for Clinical and Research Respondents*

	Clinical (n=13)	Research (n=16)	Total (N=29)
Neither parent with complete HE	5	6	11
One with complete HE, one without	3	8	11
Both parents with complete HE	5	2	7

Table 6 indicated that five of the clinical respondents were first generation students. For five of the clinical respondents, both parents had completed higher education training or higher, and the remaining three individuals had one parent who had completed higher education and one who had not. The interaction of these variables showed that six of the research respondents were first generation students. Two of the respondents came from families where both parents had a higher education degree or higher, and eight respondents had one parent with completed higher education training and one without.

The respondents were asked to provide their year of birth, which was used to calculate their maximum age in 2017, the year the survey was conducted. The descriptive statistics for the ages of the respondents in the year the survey was conducted were shown in Table 7 below.

Table 7. *Descriptive Statistics of Age in 2017 for Clinical and Research Respondents*

	Clinical (n=13)	Research (n=16)	Total (N=29)
Minimum	28	28	28
Maximum	57	53	57
Mean	37.38	32.94	34.93
Mode	36	28 / 30 / 36	36
Median	36	31,5	33

Table 7 showed that both the clinical respondents and the research respondents had minimum ages of 28, and maximum ages in the 50s. The clinical respondents had a mean of 37 ( $n_c=13$ ) and the research respondents had a mean of 32 ( $n_r=16$ ). The most common age across both groups was 36.

The results of the present study indicated a greater proportion of female graduates that resonated with findings by A. L. Pillay and Kramers (2003) that clinical psychology was

characterised by a higher proportions of female students. The almost 60-40 female-male split of the clinical respondents may indicate that there have been concerted efforts towards improving the gender disparity in selection processes. However, it may indicate that male clinical psychology graduates were more likely to respond to the survey. There was no literature depicting the demographic profile of research psychologists, and as such, it was unknown whether these results were representative of the present population. However, the gender distribution of research respondents aligned with the identified predominance of females of clinical psychologists, identified in the present study and in the literature.

Most of the respondents reported that their current residence was in the Western Cape, which aligned with the location of the university where the Masters programmes were offered. It was not known whether the respondents were clustered in the Western Cape due to career prospects, personal or familial locality.

The education levels of the respondents' parents indicated that there was a spread of parental education levels, with about a third of each group being first generation students. The substantial representation of first generation students suggested that parental education alone did not necessarily determine the graduate potential of the next generation. The representation of first-generation students with Masters level degrees, to some extent disagreed with the comments by CHEC (2013) and Tomlinson (2017) of the corollary relationship between potential educational achievement and parental education level, as a proxy for previous disadvantage in terms of social capital. The present study suggested that there was a fair representation of those from both previously advantaged and disadvantaged backgrounds among the professionally skilled Masters graduates. The representation of individuals from disadvantaged backgrounds may be explained by the HDI status of the university in question, in that it draws a higher proportion of students from previously disadvantaged backgrounds, compared to previously advantaged institutions (DHET, 2012). As such, the current sample may be representative of the demographics of the specific institution, and not of access to higher education in other South African institutions or programmes. The potential lack of social capital, in terms of lower parental education level, had not prevented the respondents in the current sample from accessing Masters degree programmes and employment. However, there may have been other factors, for example, other forms of social capital, at play which enabled these respondents to access professional training and employment.

### 5.2.1 Education history

Respondents were asked to provide details about the highest degree level attained from the university in question, including degree level, year started (registration), year completed (graduation), department or school, and major or specialisation. The same group of variables was obtained for the highest degree qualification, regardless of institution. All respondents obtained professional Masters degrees from the identified institution in the Department of Psychology. This qualification level additionally satisfied the inclusion criteria. As mentioned before, the Masters programmes pursued included the clinical psychology and research psychology programmes, with 13 respondents from the clinical programme and 16 from the research programme.

For the majority of the sample, this Masters degree was the highest qualification completed. Three respondents indicated that they completed a Doctoral degree at another institution or in another department. One indicated that he/she was registered for a Doctoral degree but had not yet completed it. The pursuit of post-Masters training was not explicitly queried, and as such, cannot be commented on.

The year of registration for the respective Masters degree programmes indicated a spread of respondents from every year between 2007 and 2013, as shown in Table 8 below. The most represented year for the clinical respondents was 2011 ( $n_c=3$ ). The most represented year for the research respondents was 2012 ( $n_r=5$ ).

Table 8. *Frequency Table of Masters Registration Year for Clinical and Research Respondents*

	Clinical (n=13)	Research (n=16)	Total (N=29)
2007	2	2	4
2008	1	3	4
2009	2	1	3
2010	1	2	3
2011	3	2	5
2012	2	5	7
2013	2	1	3

The year in which the respondents indicated that they graduated from their respective Masters programmes indicated a spread from 2009 to 2014, as shown in Table 9 below. The most represented year for the clinical respondents was 2010 ( $n_c=5$ ). The most represented group for the research respondents was 2013 ( $n_r=7$ ).



Table 9. *Frequency Table of Masters Graduation Year for Clinical and Research Respondents*

	Clinical (n=13)	Research (n=16)	Total (N=29)
2009	1	1	2
2010	5	5	10
2011	1	1	2
2012	1	1	2
2013	2	7	9
2014	3	1	4

The year of birth provided in the demographic section was used to calculate the age of each respondent at the time that they registered for and graduated from their respective Masters programmes. The descriptive statistics of the ages of respondents at registration and graduation were shown in Table 10 below.

Table 10. *Descriptive Statistics of Age at Registration and Graduation for Clinical and Research Respondents*

	Clinical (n=13)	Research (n=16)	Total (N=29)	
Age at M registration	Minimum	24	22	22
	Maximum	51	46	51
	Mean	30.62	26.06	28.1
	Mode	26	22 / 23	26
	Median	28	23.5	26
Age at M graduation	Minimum	25	23	23
	Maximum	51	46	51
	Mean	31.92	27.63	29.55
	Mode	29	24 / 25	25
	Median	29	25	28

Table 10 showed that the clinical respondents ranged from 24 years old to 51 years old during the year of registration for their Masters programme, with a mean of 30.62 ( $n_c=13$ ), and the most common age being 26. By the time the clinical respondents graduated, their age range was from 25 to 51 years old, with a mean of 31.92 and the most common age being 29 years old.

During the year that they registered for their Masters programme, the research respondents ranged from 22 years old to 46 years old, with a mean of 26.06 ( $n_r=16$ ) and a joint equal most common age of 22 and 23 years old. The research respondents ranged from 23 to 46 years old during the year that they graduated from their Masters programme, with a mean age of 27.63, and a joint most common age of 24 and 25 years old.

The age of enrolment ranged from early 20s to about 50 for both groups, indicating that there was no set age for the pursuit of professional Masters degrees in psychology. The most common age for the clinical respondents when they enrolled in their Masters programme was 26, yet the mean was 30.62 and the median was 28. The distribution of ages indicated that most of the students were in fact older than the most common age of 26. Maturity has commonly been deemed an important selection criterion, particularly for the clinical programme. However, maturity may not be determined by age alone. The age of enrolment for the research respondents indicated an average lower enrolment age, as the minimum, median and mode were between 22 and 24 years old. The distribution of ages suggested that while the range of ages for the research respondents when they enrolled in their Masters programme included a 46-year-old, most of the respondents were in their mid-twenties. There has been no literature on the average ages of enrolment or graduation for these specific Masters programmes nor for Masters programmes in general. The findings suggested that age at graduation from these Masters programmes was lower than the average of 34 years as of 2005 reported by CHE (2009). It may be that age at graduation has decreased in the intervening years, or that the graduates from these Masters programmes were younger than the general average age of Masters graduates reported in the CHE document.

The respondents reported the first year of registration and the year of graduation which made it possible to calculate the years taken to complete the Masters programme. It became apparent that some respondents indicated that they graduated in the same year that they first registered for their Masters degree thus they took one academic year to complete the degree. Upon reflection, it appeared that the question might have been ambiguous as graduation at the identified institution typically takes place a few months after completion, in the following academic year. Some participants may even graduate later if there are outstanding fees. Thus, the item did not make a distinction between date of completion and date of graduation. It was not possible to identify how respondents answered the question, leaving these results vague, and were thus not further discussed. As of 2005, the average years taken to complete a Masters degree was 2.9 years (CHE, 2009). It was not possible to compare the two Masters programmes in question compare to the average time taken to complete a Masters degree in 2005.

The years since graduation, according the year in which the study was conducted, was calculated using the year of completion or graduation. This variable was included, despite the potential different respondent interpretation, as it gives an indication of how long

the respondents have been in the workplace. The descriptive statistics for this calculated variable was shown in Table 11 below.

Table 11. *Descriptive Statistics of Years since Graduation for Clinical and Research Respondents*

		Clinical (N=13)	Research (N=16)	Total (N=29)
Years since graduation	Minimum	3	3	3
	Maximum	8	8	8
	Mean	5.46	5.31	5.38
	Mode	7	4	7

Table 11 showed that the respondents from both programmes graduated between three and eight years ago. The mean time since graduation for the clinical respondents was 5.46 years ( $n_c=13$ ), with a mode of 7 years ago. The mean time since graduation for the research respondents was 5.31 years ( $n_r=16$ ), with a mode of 4 years. Overall, the mean time between graduation from the respective Masters programmes and the year of the present study being conducted was 5.38 years ( $N=29$ ), with most of the respondents having graduated 7 years ago.

The respondents had spent between three and eight years in the work-place since completing their Masters degrees. This affirms the inclusion criteria of respondents having completed their Masters training a minimum of two years prior to completing the survey.

### 5.3 The relationship between study and work

#### 5.3.1 Competencies at graduation

The responses provided by the respondents regarding the extent to which they perceived that they possessed the listed competencies at the time of graduation were grouped as low (1 and 2), neutral (3) and high (4 and 5) responses, to aid interpretation. The rank-order of competencies for the clinical Masters programme was provided in Figure 1 below.

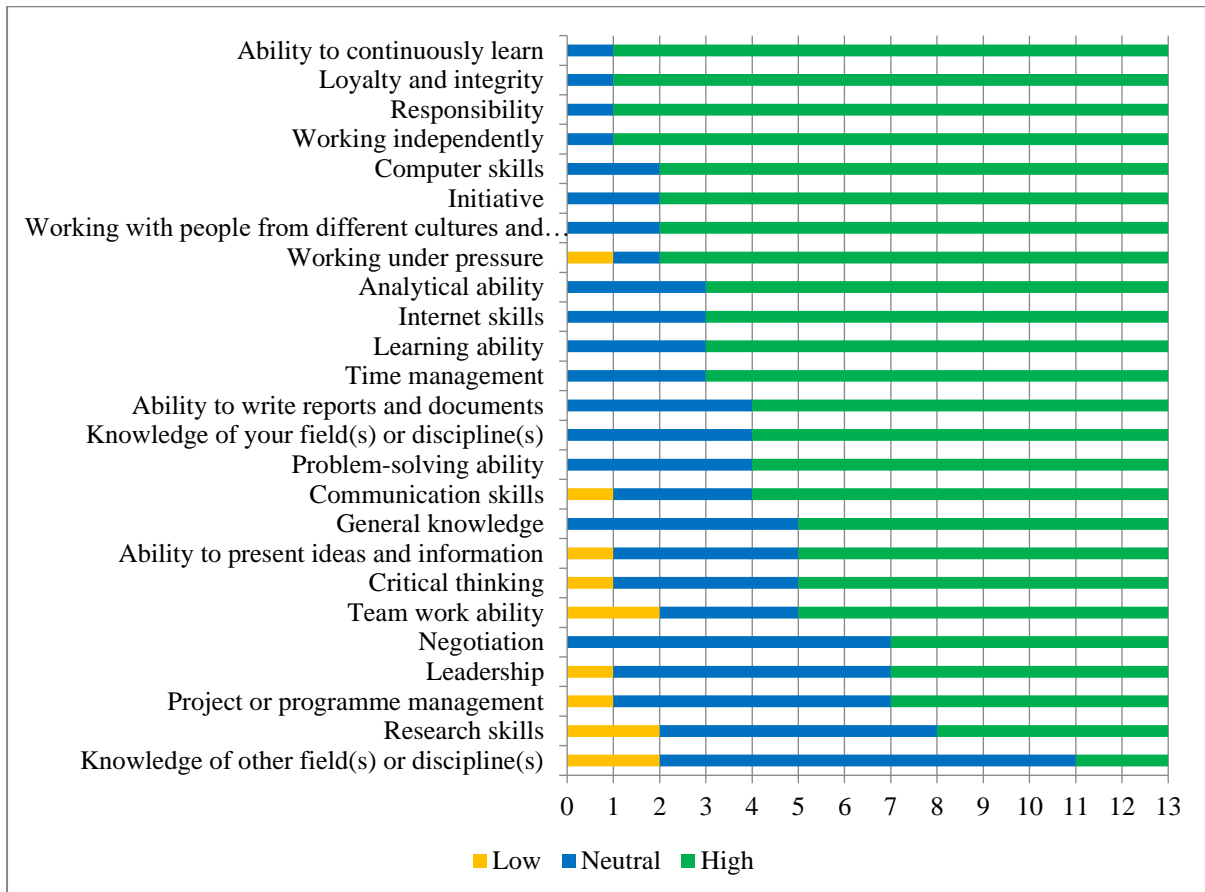


Figure 1. Frequencies of the clinical respondents' perceived level of competencies at the time of graduation

The results for the perceived level of competency of the clinical respondents at the time of graduation, as shown in Figure 1 above, may be summarised in seven sets. The first set was comprised of the highest ranked competencies. This set included the ability to learn continuously, loyalty and integrity, responsibility and working independently. These were rated high by all but one of the clinical respondents ( $n_c=12$ ).

The second set of competencies were rated high by all but two of the clinical respondents ( $n_c=11$ ). This set included computer skills, the ability to take initiative, working with people from different cultures and backgrounds, and working under pressure. The third cluster of skills was rated high by ten of the clinical respondents. This cluster included the ability to learn and think analytically, internet skills, and time management. The fourth set of skills was rated high by nine of the clinical group. This included the ability to write reports and documents, problem-solve and communicate. This also included knowledge of clinical psychology.

The fifth cluster of skills was rated high by eight of the clinical group. This included general knowledge, the ability to present ideas and information, think critically and work as

part of a team. The sixth set of skills was more mixed in terms of the extent to which the clinical respondents perceived they possessed these skills at the time of graduation. This cluster included negotiation, leadership, project or programme management, and research skills. About half of the clinical respondents rated them high. The other half rated them neutrally. One respondent rated leadership and project or programme management low. Two respondents rated research skills low.

The last competency was the lowest ranking perceived competency of the clinical respondents at the time of graduation. This was the knowledge of other field(s) or discipline(s). Two respondents rated this high, nine rated it neutral, and two rated it low. The rank-order of the perceived extent to which the research Masters respondents possessed competencies was provided in Figure 2 below.

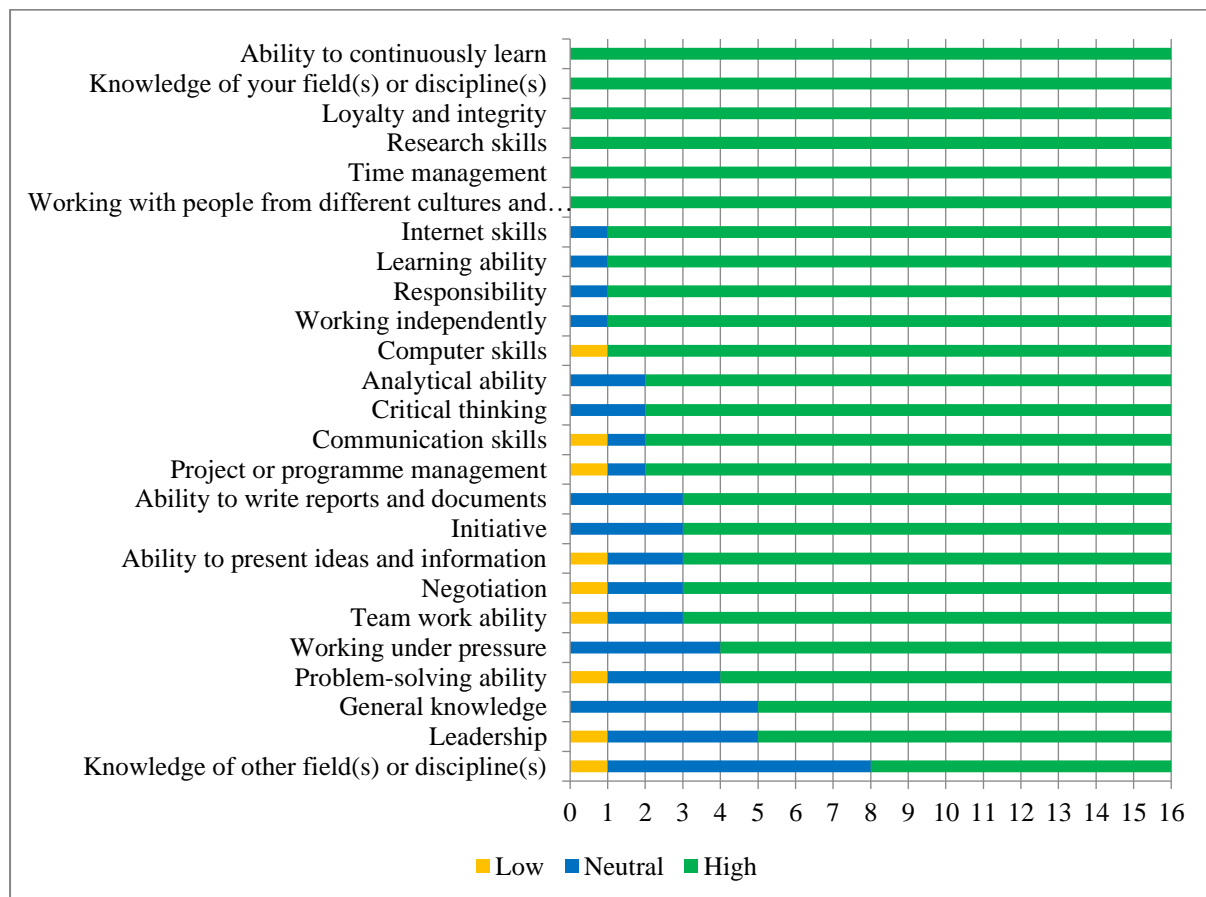


Figure 2. Frequencies of the research respondents' perceived level of competencies at the time of graduation

The results for the perceived level of competency of the research respondents at the time of graduation, as shown in Figure 2 above, may be summarised in six sets. There was complete consensus amongst the research respondents that the first set of competencies was possessed to a high extent at the time of graduation. This included the ability to learn

continuously and to work with people from different cultures and backgrounds. This also included knowledge of research psychology, research skills, time management, and loyalty and integrity.

The second cluster of competencies were rated high by all but one of the research respondents ( $n_r=15$ ). This included internet and computer skills, the ability to learn and work independently, and responsibility. The third set of skills was rated high by fourteen of the research respondents. This included the ability to think critically and analytically, to communicate, and project or programme management skills. Thirteen of the research respondents rated the fourth cluster of skills high. This included the ability to write reports and documents, present ideas and information, to take initiative, to negotiate and to work as part of a team.

The fifth set of competencies comprised of the ability to work under pressure, solve problems, general knowledge and leadership. These competencies were rated high as follows: the ability to work under pressure ( $n_r=12$ ), solve problems ( $n_r=12$ ), general knowledge ( $n_r=11$ ) and leadership ( $n_r=11$ ). The last competency was the lowest ranking perceived competency of the research respondents at the time of graduation. This was the knowledge of other field(s) or discipline(s). Eight research respondents rated this high, seven rated it neutrally and one rated it low.

According to the South African Department of Education, graduates should possess the following skills upon completion of their higher education: critical and analytical skills, problem-solving abilities, communication skills, the ability to deal with change and diversity, and a tolerance of different worldviews and ideas (DoE, 1997). Most of the respondents rated each of these variables a four or a five, indicating that they perceived that they possessed these competencies to a positive extent at the time of graduation. One respondent from each group felt that they did not possess communication skills at the time of graduation, one clinical respondent felt that s/he was not competent in critical thinking at the time of graduation, and one research respondent felt that they were not competent in problem-solving at the time of graduation. There were one to four respondents across each group that provided neutral responses for these competencies. However, there was an overall indication that, according to the DoE, the graduates from the professional Masters programmes in psychology at the institution possessed the relevant skills upon graduation.

The South African Qualifications Authority identifies responsibility, problem-solving ability, critical thinking, team work and analytical ability, among others, as key

competences of graduates (SAQA, 1998). Again, most of the respondents from both programmes perceived that they possessed these competencies to a positive extent at the time of graduation. Two of the clinical respondents and one of the research respondents felt that they were not competent in team work at the time of graduation. None of the respondents felt that they were not competent in responsibility at the time of graduation. Only one respondent from each programme provided neutral responses for responsibility at the time of graduation. Overall, the results indicated that, according to the SAQA guidelines, graduates from these two professional Masters programmes in psychology reportedly possessed the relevant skills upon graduation.

### 5.3.2 University contribution to competencies

The responses provided by the respondents regarding the extent to which they perceived the university contributed to the listed competencies were grouped as low (1 and 2), neutral (3) and high (4 and 5) responses, to aid interpretation. The results for the clinical Masters respondents were shown in Figure 3 below.

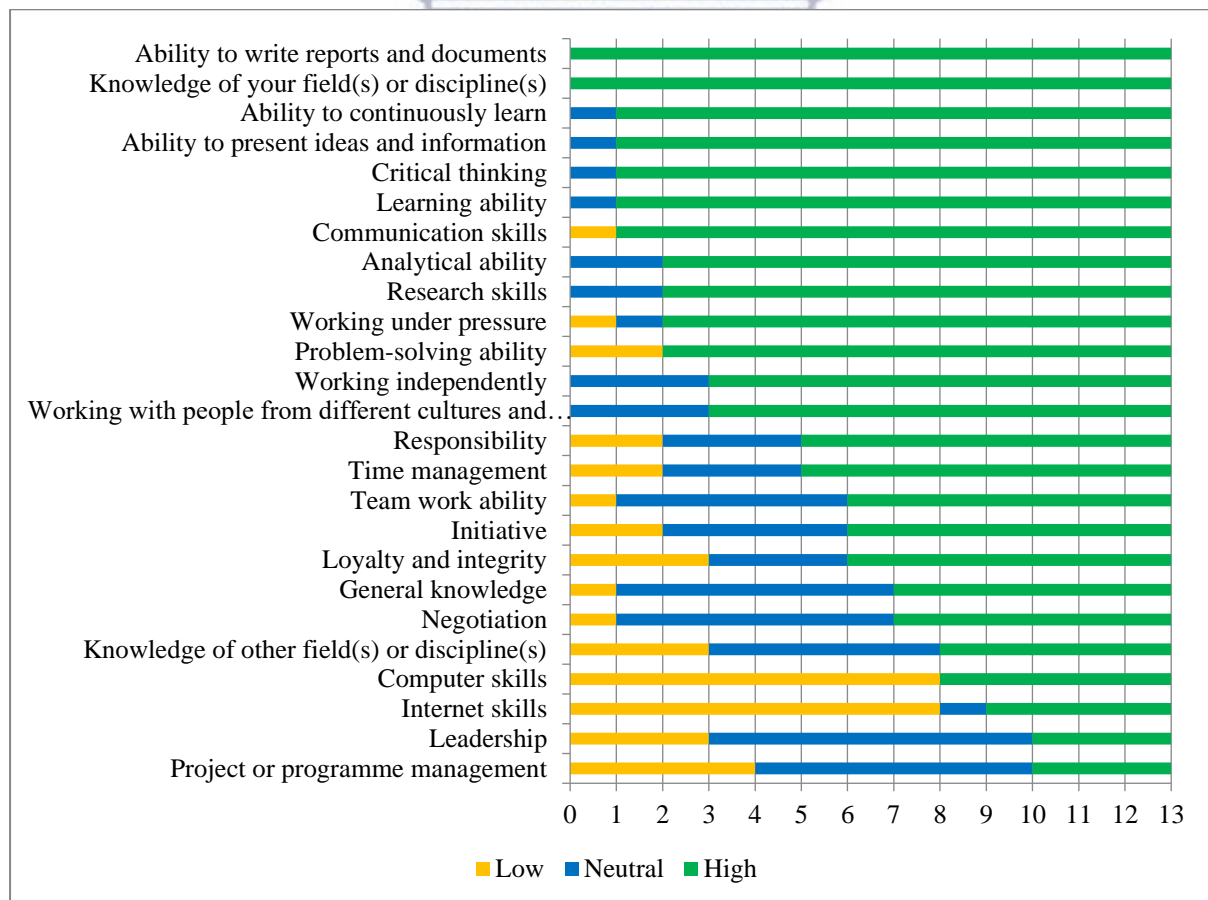


Figure 3. Frequencies of the clinical respondents' perceived contribution by the university to competencies

As shown in Figure 3, the results for the extent to which the clinical respondents perceived the contribution made by the university to the listed competencies may be broken into seven clusters. The first cluster of skills was comprised of the two highest ranked competencies which the clinical respondents indicated their university contributed towards. This included the ability to write reports and documents, and knowledge of clinical psychology. All thirteen of the clinical respondents rated these competencies high.

The second cluster of skills were rated high by all but one of the clinical respondents ( $n_c=12$ ). This included the ability to learn continuously, to present ideas and information, to think critically, to learn and to communicate. Eleven of the clinical group rated the third cluster of competencies high. This included the ability to think analytically, to problem solve, and to work under pressure. This also included research skills. The fourth cluster of skills was rated high by ten of the clinical respondents. This included the ability to work independently and to work with people from different cultures and backgrounds. The fifth set of skills was rated high by eight of the respondents. This included responsibility and time management skills. Three respondents rated these neutrally and two rated these low.

The sixth set of skills was more mixed in the graduates' perceptions of the extent to which the university contributed to their competencies. These skills were rated high by about half of the clinical respondents. This included the ability to work as part of a team ( $n_c=7$ ), to take initiative ( $n_c=7$ ), to negotiate ( $n_c=6$ ), general knowledge ( $n_c=6$ ) and knowledge of other field(s) or discipline(s) ( $n=5$ ).

The seventh cluster contained the two lowest ranked competencies based on the perception of the clinical respondents of the extent to which the university contributed towards them. This included computer and internet skills, which were rated low by eight of the clinical respondents. This also included leadership skills, which was rated low by three respondents, neutrally by seven, and high by three. This lastly included project or programme management skills, which was rated low by four respondents, neutrally by six and high by three. The results for the perceived contribution by the university to the competencies for the research Masters respondents were shown in Figure 4 below.



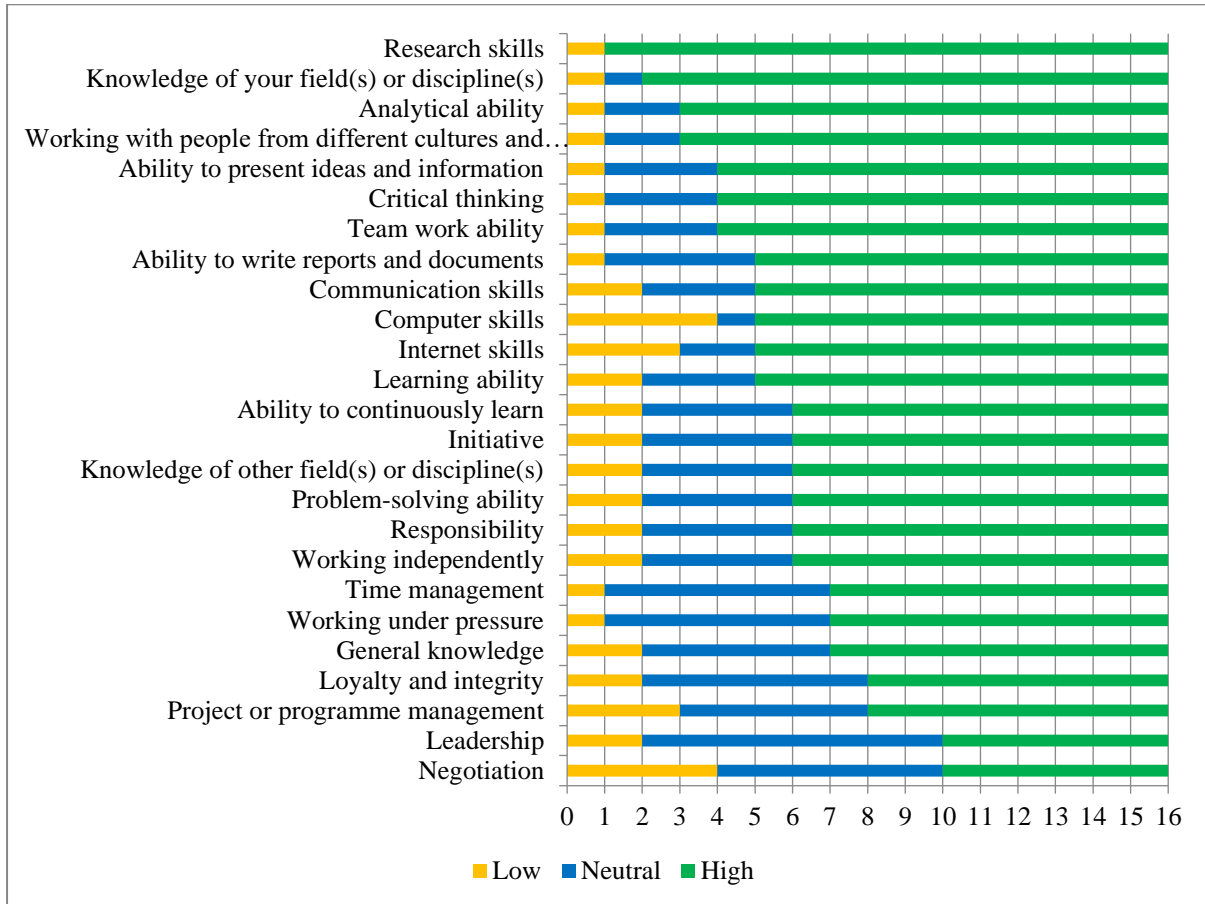


Figure 4. Frequencies of the research respondents' perceived contribution by the university to competencies

As shown in Figure 4, the results for the extent to which the clinical respondents perceived the contribution made by the university to the competencies may be broken into seven clusters. The first competency, research skills, was the highest ranked competency, which was rated high by all but one of the respondents ( $n_r=15$ ).

The second cluster of skills was rated high by almost all of the research respondents, as indicated. This included knowledge of research psychology ( $n_r=14$ ), the ability to think analytically ( $n_r=13$ ) and the ability to work with people from different cultures and backgrounds ( $n_r=13$ ). The third set of skills was ranked high by twelve of the research respondents. This included the ability to present ideas and information, to think critically and to work as part of a team. The fourth set of competencies was rated high by eleven of the research respondents. This included the ability to write reports and documents, learn, and communicate. This also included computer and internet skills.

The fifth cluster of skills was rated high by ten of the research respondents. This included the ability to learn continuously, take initiative, solve problems and work independently. This also included knowledge of other field(s) or discipline(s) and

responsibility. The sixth set of skills was rated high by eight or nine of the research respondents, as indicated. This included time management ( $n_r=9$ ), general knowledge ( $n_r=9$ ), the ability to work under pressure ( $n_r=9$ ), loyalty and integrity ( $n_r=8$ ) and project or programme management ( $n_r=8$ ).

The seventh cluster contained the two lowest ranked competencies by the research respondents, regarding the extent to which the university contributed towards them. This included leadership and negotiation skills. Eight respondents rated these high. Eight respondents rated leadership skills neutrally, and two rated it low. Six respondents rated negotiation skills neutrally, and four rated this low.

Overall, both groups perceived that they possessed the listed competencies to a higher extent at the time of graduation than the perceived extent to which the university contributed towards them. This result supported the position that there is a gap between the skills that graduates actually have upon graduation and 'graduate skills' gained through university training, as posited by Tomlinson (2017). The identified gap in skills suggested that while the university contributed positively to the development of many of the competencies, there were other settings or factors that affected the development of these competencies. If these competencies were not only developed in the university setting, the results conflict with the narrow focus of employability, where the solution to unemployment is to increase skills, being the responsibility of the individual in the higher education institutions (McQuaid et al., 2005; Tomlinson, 2017). The support for a broader context affecting skills development suggested a broader definition of employability, with the interaction of various personal and contextual factors, with skills being developed in various contexts, including the university (Griesel & Parker, 2009; McQuaid & Lindsay, 2005).

### **5.3.3 Preparatory capacity of degree programmes**

Respondents rated the extent to which their Masters study programme at the university had prepared them for starting work, further learning on the job, performing current work tasks, potential or future career(s), personal development and the development of entrepreneurial skills. These responses were grouped according to negative responses (1 or 2), neutral responses (3) and positive responses (4 or 5), to aid interpretation. The results for the preparatory capacity of the clinical programme were shown in Table 12 below.

Table 12. *Frequency Table of Preparatory Capacity for Clinical Respondents*

Clinical (n=13)	Negative	Neutral	Positive
Further learning on the job	0	1	12
Performing current work tasks	0	1	12
Personal development	0	1	12
Potential or future career(s)	1	0	12
Starting work	0	2	11
Development of entrepreneurial skills	8	2	3

Table 12 indicated that 12 of the 13 clinical respondents felt that the clinical programme prepared them well for further learning on the job, for performing their current work tasks, for their personal development and for their potential or future career. One clinical respondent did not feel that the programme prepared them for their potential or future career(s). One clinical respondent was neutral about the preparatory nature of the programme for performing current work tasks, for further learning on the job and for personal development. Most of the clinical respondents ( $n_c=11$ ) felt that their Masters training prepared them well for starting work, but two respondents were neutral about this. Only three respondents felt that the clinical programme facilitated the development of entrepreneurial skills, and three were neutral to this. The remaining eight respondents felt that the clinical programme did not facilitate the development of entrepreneurial skills. The results for the preparatory capacity of research programme were shown in Table 13 below.

Table 13. *Frequency Table of Preparatory Capacity for Research Respondents*

Research (n=16)	Negative	Neutral	Positive
Further learning on the job	0	2	14
Personal development	0	2	14
Performing current work tasks	1	2	13
Starting work	1	3	12
Potential or future career(s)	1	3	12
Development of entrepreneurial skills	3	10	3

As shown in Table 13, nearly all of the research respondents ( $n_r=14$ ) felt that their Masters programme prepared them in terms of future learning on the job and their personal development. The remaining two were neutral as to its contribution. Thirteen research respondents felt that their research Masters prepared them well for performing their current tasks, two were neutral about this, and one felt that he/she was not prepared. Similarly, 12 respondents felt that the research Masters programme prepared them well for starting work and for their potential or future career, with three indicating a neutral response, and one a negative response. Three of the research respondents felt that their Masters training had

developed their entrepreneurial skills, ten were neutral about this, and three felt that entrepreneurial skills were not developed in the Masters programme.

Across both groups, the Masters programmes were considered good preparation for starting work, and therefore may be considered as allowing appropriate access to the workplace. The preparatory nature of the Masters programmes was not just employment focused, but also allowed for personal development. This result indicated that these degree programmes were not only focused on skills development, but also facilitated personal development. The importance of personal development aligns with the identified importance of personal identity for the transition into the workplace (Griesel & Parker, 2009). The programme not only prepared them for immediate employment, but for future learning and career(s) as well. The positively identified preparatory capacity of the Masters programmes in terms of further learning on the job and potential or future career(s), and therefore transferability of skills, aligned with the identified importance of transferability of skills and skilful practices for graduates entering the workplace (Griesel & Parker, 2009). Both groups generally felt that their studies prepared them well for their current work tasks, which indicated positive programme relevance to the workplace. An identified gap for both groups was that their studies did not sufficiently prepare them in terms of the development of entrepreneurial skills. One of the clinical respondents expressed the following sentiment, “the study program offered no input on business management or creating self-employment. This should be integral to any profession that may lead to self-employment”. This sentiment is underscored by the results on employment that indicated that three of the 13 clinical respondents (23%) were self-employed, as discussed under section 5.5.1.

#### **5.3.4 Utilisation of competencies in subsequent employment**

The responses provided by the respondents regarding the extent to which they perceived the listed competencies were utilised in their subsequent employment were grouped as low (1 and 2), neutral (3) and high (4 and 5) responses, to aid interpretation. The results for the clinical respondents were provided in Figure 5 below.

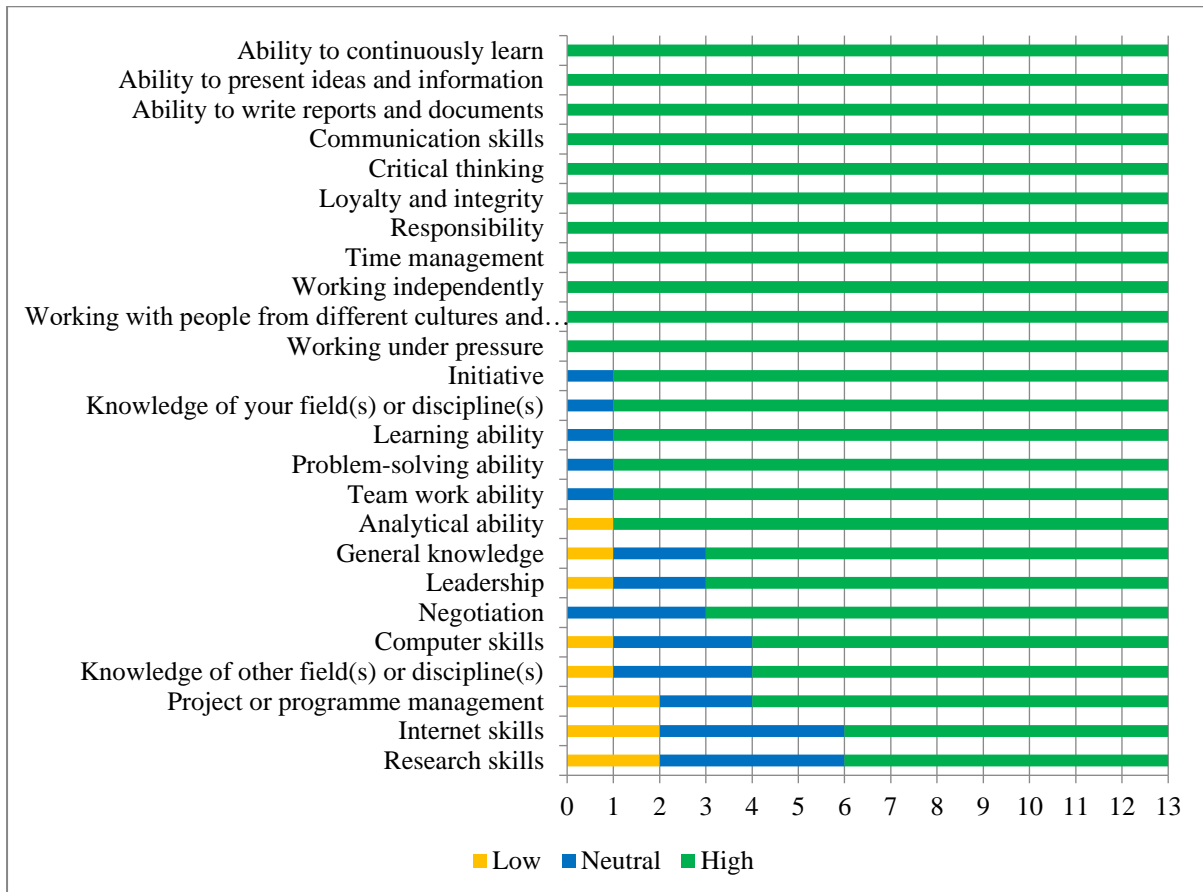


Figure 5. Frequencies of the clinical respondents' perceived utilisation of competencies in subsequent employment

As shown in Figure 5, the results for the extent to which the acquired competencies were used in subsequent employment for the clinical respondents may be summarised in four sets. There was complete consensus amongst the clinical respondents about the first set of competencies that were utilised to a high extent in subsequent employment. This set included the ability to learn continuously, present ideas and information, to write reports and documents, to think critically, and to work independently, under pressure and with people from different cultures and backgrounds. This set also included communication skills, loyalty and integrity, responsibility and time management skills.

The second set of skills included the ability to take initiative, problem-solve, work as part of a team, to learn and to think analytically. This set was rated high by all but one of the clinical respondents ( $n_c=12$ ). This set also included knowledge of the field of clinical psychology. The third cluster of competencies was more mixed in the graduates' perceptions of how useful they were in subsequent employment. More than half of the clinical respondents perceived the skills to have been used to a high extent in a subsequent employment. This cluster included general knowledge ( $n_c=10$ ), leadership ( $n_c=10$ ),

negotiation ( $n_c=10$ ), computer skills ( $n_c=9$ ), knowledge of other field(s) or discipline(s) ( $n_c=9$ ) and project or programme management ( $n_c=9$ ). The remainder of the group rated these skills as having been used to a lesser extent.

The fourth cluster included the lowest ranked skills in terms of the extent to which the clinical respondents perceived them to be used in their subsequent employment. This set included internet skills and research skills. Only seven of the clinical respondents reported that they used internet and research skills to a high extent in their subsequent employment. There were additionally four neutral and two low responses provided. The results for the research respondents' perceived utilisation of the listed competencies in their subsequent employment were provided in Figure 6 below.

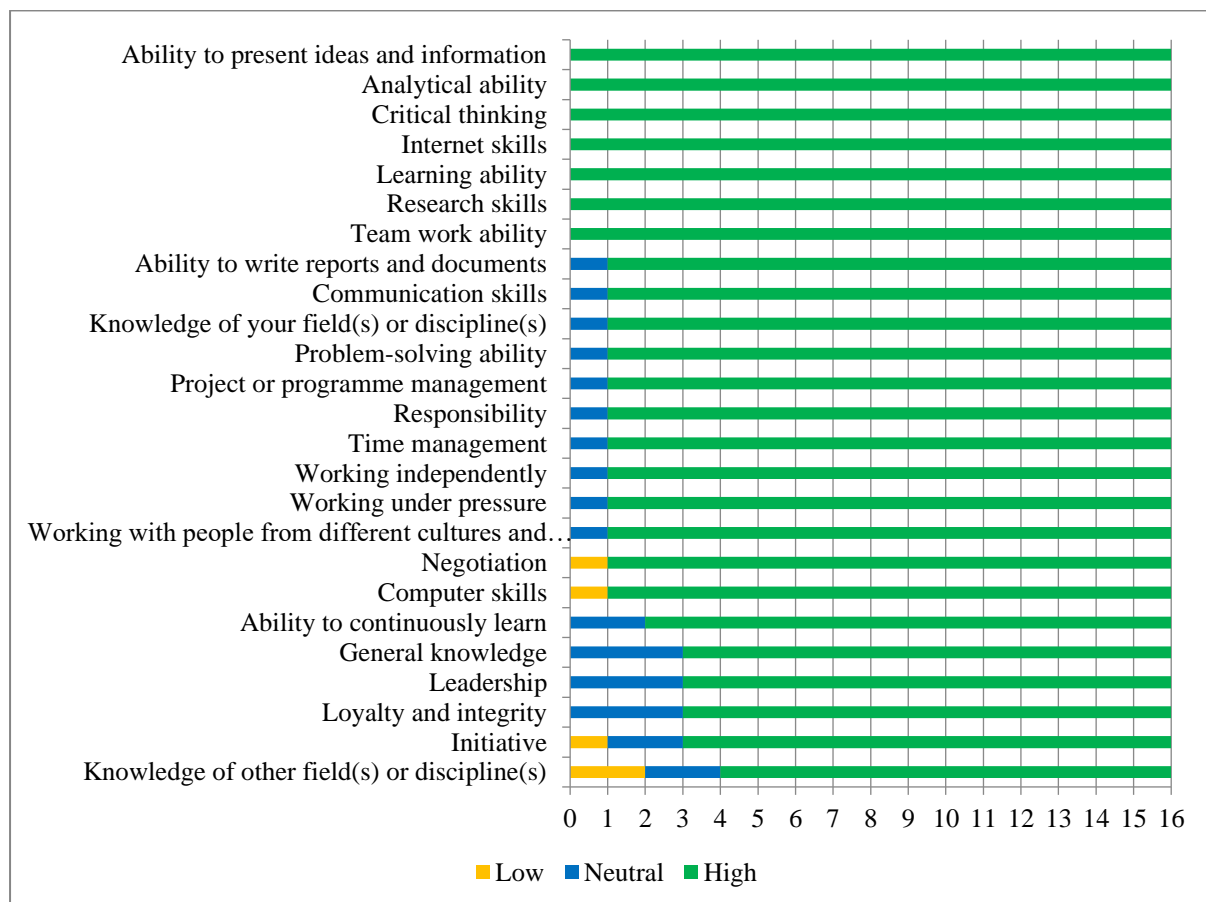


Figure 6. Frequencies of the research respondents' perceived utilisation of competencies in subsequent employment

As shown in Figure 6, the results for the extent to which the acquired competencies were used in subsequent employment for the research respondents can be summarised in four sets. All the research respondents ( $n_r=16$ ) indicated that their subsequent employment utilised the first cluster of competencies to a high extent. This included the ability to present ideas and information, to think analytically and critically, to learn and to work as part of a team.

This set also included internet skills and research skills. The second cluster of competencies were ranked high by all but one respondent ( $n_r=15$ ). This included the ability to write reports and documents, to solve problems, and to work independently, under pressure and with people from other backgrounds. This set also included project or programme management skills, responsibility, time management, negotiation and computer skills.

The third cluster of skills was rated high by all but a few of the research respondents, as indicated. This included the ability to learn continuously ( $n_r=14$ ), to take initiative ( $n_r=13$ ), general knowledge ( $n_r=13$ ), leadership skills ( $n_r=13$ ), and loyalty and integrity ( $n_r=13$ ). The last and lowest ranked competency by the research respondents, in terms of the extent to which it was used in subsequent employment, was the knowledge of other field(s) or discipline(s). This was rated high by twelve respondents, neutrally by two, and low by two.

Overall, participants felt strongly that their competencies were utilised in their work. This result suggested that despite the relative focus on certain skills during training, all of these skills were utilised in the work place. In the previous section, respondents indicated that their studies prepared them well for their current work tasks. If these work tasks were utilising all of these skills, it follows that respondents were able to perform these tasks due to their appropriate possession of these skills. The resultant ability to perform work tasks supported the notion that these skills were honed and further developed in settings outside of the higher education context, likely through work-experience and continuous professional development (McQuaid et al., 2005; Tomlinson, 2017). The evidence of ongoing career skills development highlighted the importance of on-the-job learning and continuous professional development, in order to stay relevant to the field in which one works. This aligned with research by Broad (2015) and Parekh (2015).

### 5.3.5 Relation of study to work

Respondents rated the extent to which their field of study related to their area of work. Responses were grouped as low (1 and 2), neutral (3) and high (4 and 5), to aid interpretation. Table 14 below reflected the frequencies for both the clinical and research respondents.

Table 14. *Frequency Table of Extent to which Field of Study Related to Field of Work for Clinical and Research Respondents*

	Clinical (n=13)	Research (n=16)
Low	0	0
Neutral	0	4
High	13	12

Table 14 indicated that all of the clinical respondents ( $n_c=13$ ) felt that their field of study was closely related to their field of work. Twelve of the research respondents felt that their work was closely related to their training. Four research respondents provided a neutral response, indicating that they felt their work was less related to their training.

In response to a follow up question, respondents indicated why they took up the work they were in, if they felt that it was unrelated to their training. One of the response options provided allowed the differentiation between those who considered their job as closely linked to their studies and those that did not. The results were shown in Table 15 below.

Table 15. *Frequency Table of those who Consider their Job as Closely Linked to their Studies for Clinical and Research Respondents*

	Clinical (n=13)	Research (n=16)
Consider job closely linked to studies	13	12
Do not consider job closely linked to studies	0	4

As shown in Table 15, all thirteen of the clinical respondents again considered their job to be closely linked to their studies, as did twelve of the research respondents. The remaining four of the research respondents did not consider their job to be closely linked to their studies. The reasons given by these four respondents were indicated in Table 16 below.

Table 16. *Frequency Table of Reasons for Working in a Field that was Unrelated to Training for the Research Respondents*

	Research (n=16)
My current job allows me to take into account family needs	3
I have not (yet) been able to find a job more appropriate	2
I was promoted to a position less linked to my studies than my previous position(s)	2
I can get a higher income in my current job	2
My current job offers me more security	2
My current job provides the opportunity for part-time/flexible schedules, etc.	1
My current job enables me to work in a locality, which I prefer	1
In doing this job I have better career prospects	1
At the beginning of the career I envision, I have to accept work that is not/hardly linked to my study	1
I prefer an occupation which is not closely connected to my studies	0
My current job is more interesting	0

As shown in Table 16, a variety of reasons were given by the four research respondents for why they engaged in work that they felt was unrelated to training. Three of



the research respondents indicated that their current job allowed them the flexibility to account for family responsibilities. A cluster of reasons were provided by two of the research respondents each. The first reason was that they had not yet been able to find work that was more closely linked to their studies. The second reason was that they were promoted to positions that were less linked to their studies. The third reason was that the work, although less related to their studies, provided greater earning potential. The fourth reason was that their current work offered greater security than they had been able to have in work more related to their studies. Additional reasons included the allowance for part-time or flexible schedules, preferred locality, better career prospects, and that at the start of a career, work less linked to study may be more acceptable.

What emerged from these results was that the reasons for working in a field unrelated to the field of study were of a pragmatic nature. None of these four respondents said that they preferred an occupation less connected to their studies or that they found their current job more interesting as reasons for working in a field less closely connected to their studies. The results showed that all of the clinical respondents felt that their studies were closely related to their work, and while most of the research respondents agreed, four of the research respondents did not. The reasons given for taking up work which they consider not to be closely linked to their studies included practical factors, such as family needs, lack of access to more appropriate work, promotion, higher income, job security and flexibility. These aspects may be considered as factors that act as barriers to accessing work appropriate to field of study, and supports the argument that employability goes beyond skills, but may be the interaction of various personal and contextual factors (Griesel & Parker, 2009; McQuaid & Lindsay, 2005). In additional comments by the research respondents, the scarcity of jobs in the field of psychological research was mentioned, as well as the importance of skills that are transferable to other fields. The scarcity of skills combined with skill transferability may be an explanation for why some of the research respondents were employed in work that they felt was not closely linked to their studies. However, the noted importance of skill transferability does align with research by Griesel and Parker (2009).

## 5.4 Marketability

### 5.4.1 Employment search

Respondents were asked to indicate the methods that were useful in their search for employment. The frequency distribution of which methods the respondents felt were useful were shown in Table 17 below, grouped by Masters programme.

Table 17. *Frequency Table of Types of Useful Employment Search Methods for Clinical and Research Respondents*

	Clinical (n=13)	Research (n=16)	Total (N=26)
Applying for an advertised vacancy	10	16	26
Contacting employers without knowing about a vacancy	6	4	10
Being approached by an employer	4	5	9
Enlisting the help of teaching staff at my institution of higher education	2	7	9
Establishing contacts while working during the course of study	5	4	9
Using other personal connections/contacts (e.g. parents, relatives, friends)	3	4	7
Starting my own business/self-employment	5	2	7
Launching advertisements by myself	3	0	3
Contacting a public employment agency	1	0	1
Contacting a commercial employment agency	0	0	0
Enlisting the help of the careers/placement office of my institution of higher education	0	0	0

As shown in Table 17, almost all of the respondents ( $n_c=10$ ,  $n_r=16$ ) indicated that applying for advertised vacancies was useful in their search for employment. A second cluster of methods were helpful for searching for employment for a third of the respondents. This included contracting employers without knowing about a vacancy ( $n_c=6$ ,  $n_r=4$ ), being approached by an employer ( $n_c=4$ ,  $n_r=5$ ), enlisting the help of higher education staff ( $n_c=2$ ,  $n_r=7$ ), and making use of contacts established while studying ( $n_c=5$ ,  $n_r=4$ ).

A third cluster of methods were considered useful for searching for employment by about a quarter of the respondents. This included utilising personal connections ( $n_c=3$ ,  $n_r=4$ ) and self-employment through starting a business ( $n_c=5$ ,  $n_r=2$ ). The fourth cluster of methods was not considered useful by any of the research respondents. Two of these were considered useful by a few of the clinical respondents, as indicated. This cluster included launching an advertisement ( $n_c=3$ ,  $n_r=0$ ), utilising a public employment agency ( $n_c=1$ ,  $n_r=0$ ), utilising a commercial employment agency ( $n_c=0$ ,  $n_r=0$ ), and utilising the careers office at their higher education institution ( $n_c=0$ ,  $n_r=0$ ).

A variety of methods were considered useful for accessing employment. Applying for advertised vacancies was considered useful by most of the respondents, which would

require knowledge of and access to these advertisements. Many of the methods used to search for employment required some level of social capital or networking ability, for example, making use of contacts, teaching staff and employment agencies. This supports the notion put forward by CHEC (2013) and Tomlinson (2017) that job search methods may be considered as an indication of social capital or networks that the graduate is able to utilise in order to access employment. Self-employment was considered useful by more clinical respondents ( $n_c=5$ ), which highlighted the importance of entrepreneurial skills, outlined under the preparatory capacity of the Masters programmes in section 5.3.3. The importance of self-employment was further highlighted in comments by some of the clinical and research respondents, noting the importance of including an entrepreneurship module in the Masters training. Relatively few respondents indicated that starting a business had been helpful in their search for employment; however, this may have been due to insufficient skills or support available to pursue this.

#### 5.4.2 Increasing workplace marketability

Respondents rated the importance of 12 aspects for increasing their marketability in the workplace. These responses were grouped as negative (1 or 2), neutral (3) and positive (4 or 5), to aid interpretation. The results were shown in Table 18 for the clinical Masters programme.

Table 18. *Frequency Table of Importance for Increasing Marketability in the Workplace for Clinical Respondents*

Clinical (n=13)	Negative	Neutral	Positive
Field of study	0	0	13
Personality and interpersonal skills	0	1	12
Practical /work experience acquired during the course of study	0	2	11
English proficiency	1	2	10
Main subject/specialisation	1	3	9
Recommendations or references from third parties	2	2	9
Additional language proficiency	1	5	7
Practical /work experience acquired prior to course of study	4	3	6
Computer skills	3	5	5
Reputation of higher education institution	3	5	5
Academic results	5	4	4
Work experience abroad	10	2	1

Table 18 indicated that there were six clusters of aspects deemed variably important for increasing marketability in the workplace. All the clinical respondents ( $n_c=13$ ) indicated that their field of study was important for increasing their marketability in the workplace. A

second cluster of aspects were held to be important by nearly of the clinical respondents. No respondents indicated that they considered these aspects to be unimportant. This included their personality and interpersonal skills ( $n_c=12$ ), practical or work experience while studying ( $n_c=11$ ) and their English proficiency ( $n_c=10$ ).

A third cluster of aspects were considered to be important for increasing marketability by nine of the clinical respondents. This included their main subjects or specialisation and their recommendations or references. A fourth cluster of aspects were considered important by about half of the clinical respondents. This included being proficient in additional languages ( $n_c=7$ ) and practical or work experience attained before studying ( $n_c=6$ ). The fifth cluster of aspects was mixed in terms of their relative importance to the clinical respondents. Computer skills and the reputation of their higher education institution were considered important by five respondents, neutrally by five and unimportant by three. Academic results were considered important by four clinical respondents, neutral by four and unimportant by five.

The aspect that was considered the least important by the clinical respondents was work experience abroad. Ten respondents felt that this was unimportant, two were neutral about its importance, and only one felt that it was important for increasing workplace marketability. The results of the perceived importance of aspects for increasing marketability in the workplace for the research respondents were shown in Table 19 below.

Table 19. *Frequency Table of Importance for Increasing Marketability in the Workplace for Research Respondents*

Research (n=16)	Negative	Neutral	Positive
Computer skills	0	1	15
Main subject/specialisation	0	1	15
Practical /work experience acquired during the course of study	0	1	15
Field of study	0	2	14
Personality and interpersonal skills	0	2	14
Recommendations or references from third parties	0	1	14
English proficiency	1	2	13
Academic results	2	4	10
Practical /work experience acquired prior to course of study	3	3	10
Additional language proficiency	4	2	10
Reputation of higher education institution	2	5	9
Work experience abroad	11	2	3

Table 19 showed that there were four clusters of aspects deemed variably important for increasing marketability in the workplace by the research respondents. The first cluster of

aspects were deemed important by all but one of the research respondents ( $n_r=15$ ). This included computer skills, main subject or specialisation, and work experience acquired while studying. None of the respondents felt that these were unimportant for workplace marketability.

A second cluster of aspects were considered important by all but two of the research respondents, who were neutral about the importance ( $n_r=14$ ). This included their field of study, their personality and interpersonal skills, and recommendations or references. The third cluster of aspects was considered important by more than half of the respondents. This included their English proficiency ( $n_r=13$ ), their academic results ( $n_r=10$ ), work experience acquired before studying ( $n_r=10$ ), their proficiency in additional languages ( $n_r=10$ ), and the reputation of their higher education institution ( $n_r=9$ ). There was at least one respondent who considered each of these aspects to be unimportant for increasing workplace marketability.

The aspect which was considered the least important for increasing workplace marketability by the research respondents, was work experience acquired abroad. Eleven respondents felt it was unimportant, two were neutral about its importance, and three of the research respondents felt it was important.

The majority of respondents from both programmes felt that practical work experience acquired while studying was important for increasing their marketability. The identified importance of work experience aligned with research by Tomlinson (2017) which considered work experience as important for increasing one's employability, as it allowed access to employers, and thus social capital and networks. The importance of work experience identified in the present study for increasing marketability also aligned with research by Dahlgren et al. (2008), which identified the importance of work experience as the bridge between higher education and the labour market, facilitating the development of a professional identity through application of what had been learnt in the higher education setting. The importance of work experience identified above may be considered to align with the research by Goodman and Tredway (2016) which highlighted the importance of the practical development of competencies during studies preparing them for the workplace and thus increasing their marketability and employability. The importance of work experience was further affirmed by the perceived importance of recommendations or references from third parties. These may be attained through said work experience, and may be understood in terms of social capital that highlighted the complex interaction of various factors influencing employability. Furthermore, both groups felt that their personality and interpersonal skills

were important for increasing their marketability. The identified importance of personality and interpersonal skills highlighted the broader definition of employability that goes beyond skills, and included personal factors and personality (Griesel & Parker, 2009; McQuaid & Lindsay, 2005).

### 5.4.3 Continued professional development

Respondents indicated their agreement with 15 statements regarding CPD. Table 20 below showed the results for the clinical respondents.

Table 20. *Frequency Table of Agreement with Statements about Continued Professional Development for Clinical Respondents*

Clinical (n=13)	Disagree	Neutral	Agree
Is important	0	0	13
Allows one to remain current in the field	0	1	12
Assists in maintaining levels of knowledge, skills and ethical attitudes	0	1	12
Assists in acquiring new and updated levels of knowledge, skills and ethical attitudes	0	1	12
Complements work	0	1	12
Ultimately benefits the patient	0	2	11
Enhances and promotes professional integrity	0	3	10
Has been beneficial	0	3	10
Facilitates career improvement	1	2	10
Addressed perceived gaps in training	0	4	9
Facilitates developing professional connections	0	4	9
Has a measurable benefit for professional practice	1	4	8
Is expensive	1	6	6
Programmes or events are accessible	3	6	4
Takes up a lot of time	3	7	3

Table 20 showed that there were five clusters of statements about CPD activities with regard to the level of agreement amongst the clinical respondents. There was consensus among all of the clinical respondents ( $n_c=13$ ) that CPD was important. The second cluster of statements were agreed upon by all but one of the clinical respondents ( $n_c=12$ ). This included that CPD allowed one to remain current in the field of clinical psychology, that CPD complemented their work, and that CPD assisted with maintaining and acquiring new and updated knowledge, skills and ethical attitudes.

The third cluster of statements was also generally agreed upon by the clinical respondents. This included that CPD ultimately benefits the patient ( $n_c=11$ ), that CDP enhanced and promoted professional integrity ( $n_c=10$ ) and was beneficial and facilitated career improvement ( $n_c=10$ ). A fourth cluster of statements were agreed upon by more than half of the clinical respondents. Nine of the clinical respondents agreed that CPD has

addressed perceived gaps in training and facilitated the development of professional connections, and four research respondents were neutral about this. Eight respondents agreed that CPD had a measurable benefit for their professional practice, four were neutral about this, and one disagreed. This related back to respondents reportedly being able to perform skills adequately in the work environment that were not fully developed at the time of graduation.

The fifth set of statements regarded the costs involved, the accessibility and time commitment required of CPD activities. Six respondents agreed that CDP was expensive, six were neutral about this, and one disagreed. Four clinical respondents agreed that CDP programmes or events were accessible, six were neutral about this, and three disagreed. Three clinical respondents agreed that CDP activities were time consuming, seven were neutral about this, and three disagreed. Table 21 below showed the results for the research respondents regarding the statements about CPD.

Table 21. *Frequency Table of Agreement with Statements about Continued Professional Development for Research Respondents*

Research (n=16)	Disagree	Neutral	Agree
Assists in maintaining levels of knowledge, skills and ethical attitudes	0	1	15
Assists in acquiring new and updated levels of knowledge, skills and ethical attitudes	0	1	15
Allows one to remain current in the field	0	2	14
Facilitates career improvement	0	2	14
Is important	0	2	14
Enhances and promotes professional integrity	0	3	13
Facilitates developing professional connections	2	1	13
Complements work	0	4	12
Is expensive	1	3	12
Has a measurable benefit for professional practice	1	4	11
Has been beneficial	1	5	10
Addressed perceived gaps in training	0	7	9
Ultimately benefits the patient	2	5	9
Programmes or events are accessible	3	6	7
Takes up a lot of time	4	7	5

Table 21 showed that there were five clusters of statements with regard to the level of agreement about CPD activities amongst the research respondents. The first cluster of statements were agreed to by all but one of the research respondents ( $n_r=15$ ). This included that CPD assisted in maintaining and acquiring new and updated knowledge, skills and ethical attitudes, that CPD allowed them to remain current in their field, that CPD facilitated career improvement and that CPD was important.

The second cluster of skills was agreed upon by many of the research respondents. This included that CPD enhanced and promoted professional integrity ( $n_r=12$ ), facilitated the development of professional connections ( $n_r=13$ ), complemented their work ( $n_r=12$ ) and was expensive ( $n_r=12$ ). The third cluster of statements was agreed to by more than half of the research respondents. This included that CDP had a measurable benefit for professional practice ( $n_r=11$ ), had been beneficial ( $n_r=10$ ), had addressed perceived gaps in training ( $n_r=9$ ) and ultimately benefitted the client ( $n_r=9$ ).

The fourth cluster of statements included the accessibility of CPD activities and the time commitment involved. Seven of the research respondents agreed that CPD programmes or events were accessible, six provided a neutral response, and three disagreed. Five of the research respondents agreed that CPD activities were time-consuming, seven were neutral and four disagreed.

Most of the respondents agreed about the importance of CPD activities. The identified importance of CPD activities aligned with the identified importance of continuous learning for increasing long term employability, both in terms of personal development and professional development identified by McQuaid and Lindsay (2005). The focus on professional development was shown in the results, as most of both groups agreed that CPD was important for remaining current in the field, assisting in maintaining and acquiring new knowledge, skills and attitudes, facilitating career improvement and developing professional connections. Some of the respondents from both groups did not feel that CPD programmes or activities were accessible. The potentially limited access to CPD activities aligned with research by Broad (2015) and Parekh (2015), which identified the ability to access continued professional development activities and networks as a barrier to the benefits of CPD.

## **5.5 Most recent or current employment**

### **5.5.1 Dominant activity**

Respondents provided information about their current dominant activity. The current dominant activities of the respondents were presented in Table 22 below, grouped by Masters programme and with subtotals per response option.



Table 22. *Frequency Table of Current Dominant Activities of Clinical and Research Respondents*

	Clinical (n=13)	Research (n=16)	Total (N=29)
Employed	10	11	21
Self-employed	3	0	3
Advanced academic study	0	2	2
Child rearing/ family care	0	1	1
Combination	0	1	1
Unemployed, seeking employment	0	1	1

Table 22 showed that the respondents from the clinical programme were all employed. The dominant employment activity reported by the clinical respondents was employment in organizations or businesses ( $n_c=10$ ), and three reported being self-employed ( $n_c=3$ ). The distribution of current dominant activity in the research respondents spanned a wider range of activities and indicated that not all of the research respondents were employed. For example, one graduate reported being unemployed, but seeking employment ( $n_r=1$ ). Two participants reported that they were engaged in advanced academic study ( $n_r=2$ ). One reported that child rearing or family responsibilities was his or her dominant activity ( $n_r=1$ ). Only one reported being engaged in a combination of employment, advanced academic study and child rearing ( $n_r=1$ ). The largest number reported being employed in a company or organization ( $n_r=11$ ).

It was notable that three of the clinical respondents and none of the research respondents were currently self-employed. This was notable given the identified limited preparation in terms of entrepreneurial skills identified by the respondents in section 5.3.3 and the comments by respondents identifying that business or entrepreneurial training should be included in the Masters programme. It was also notable that three of the research respondents and none of the clinical respondents were currently engaged in advanced academic study. There was no literature commenting on the dominant activities of clinical or research Masters graduates, and as such, whether these patterns were typical among the broader population of psychological professionals cannot be commented on.

### 5.5.2 Field of work

Respondents reported on the field in which they work or have most recently worked. The breakdown of each response option by Masters programme was shown in Table 23 below.

Table 23. *Frequency Table of Field of Work for Clinical and Research Respondents*

	Clinical (n=13)	Research (n=16)	Total (N=29)
Health	8	2	10
Higher Education	1	6	7
Research	0	4	4
Policy	0	2	2
Early Childhood Development	1	0	1
Basic Education	1	0	1
Correctional Services	1	0	1
Social Services	1	0	1
Corporate	0	1	1
Social Development	0	1	1

Table 23 showed that alumni from the clinical programme were employed in clinical service delivery, education and early childhood development in descending order. Within clinical service delivery, eight reported working directly in health, which represented the highest frequency overall. Two respondents reported working in correctional services ( $n_c=1$ ) and social services ( $n_c=1$ ). Two respondents reported working in the field of education, one in higher education ( $n_c=1$ ) and one in basic education ( $n_c=1$ ). One respondent reported working in early childhood development ( $n_c=1$ ).

Alumni from the research programme reported working in a range of employment contexts. The highest frequency was reported in higher education ( $n_r=6$ ). The second highest frequency was reported in research ( $n_r=4$ ). Two respondents identified the field of research in which they worked: one in human and social development research, and the other in market research. Two respondents did not specify the area of research in which they were employed. Two respondents reported being employed in health and two reported being employed in policy. The remaining two respondents in the research respondents reported working in corporate ( $n_r=1$ ) and social development ( $n_r=1$ ) respectively.

The results indicated that the graduates from these two professional programmes had skills relevant for accessing a range of employment fields. The access to varied fields may be considered as an indication that their skills were transferable to various fields. The transferability of the respondents' skills allowed them to access a variety of employers, thus increasing their potential employability, which aligned with McQuaid and Lindsay's (2005) findings that transferability of skills was important for increasing long term employability. As such, the broad range of fields these graduates were able to access indicated the transferability of their skills and training, and thus their potential long-term employability.

### 5.5.3 Employment sector

Respondents indicated the category into which their current or most recent employer or institution fell. The frequency of each employer category was shown in Table 24 below, grouped by Masters programme and with subtotals per response option.

Table 24. *Frequency Table of Employer Category for Clinical and Research Respondents*

	Clinical (n=13)	Research (n=16)	Total (N=29)
Public	8	9	17
Private	4	3	7
NGO	1	2	3
Parastatal	0	2	2

Table 24 showed that the highest frequency of all the respondents were employed in the public sector (N=17). The split of those employed in the public sector was eight clinical respondents and nine research respondents. Seven respondents were employed in the private sector, including four from clinical and three from research. Three respondents reported that they were employed in the NGO or non-profit sector, entailing one from the clinical subgroup and two from the research subgroup. Two respondents from the research subgroup reported working in parastatal organisations, and no clinical respondents worked in this sector.

There was the largest representation of clinical respondents in the public sector, with eight of the thirteen clinical respondents reporting employment in the public sector. The clustering of clinical psychologists in the public sector was in contrast to Cooper (2014) and the Department of Health (2013) which identified that clinical psychologists were clustered in the private sector. The public sector clustering may be explained as many of the respondents were relatively early in their career, and as such may have had access to junior employment positions in the public sector. It is possible that they may move towards private employment later on in their careers. It was similarly possible that this cluster of clinical psychologists in the public sector was only true for the cohort of graduates from the university in the present study. The potentially unique clustering of the respondents in the public sector in the present study may be due to the demographics of the individuals. Access to appropriate financial and social capital, as well as years of experience, are important in order to set up a private practice (DeAngelis, 2011). For the cohort in the present study, about a third of the clinical respondents were first generation students. This indication of potential historical disadvantage and resultant limitation of social networks and resources may have prevented these graduates from setting up a private practice. As such, the private sector may not have

been as accessible as the public sector in terms of employment opportunities. Additionally, transformation initiatives, such as BEE, may have provided greater access to the public sector for some respondents, particularly due to the identified prevalence of White individuals in the field of psychology (A. L. Pillay & Kramers-Olen, 2014; A. L. Pillay & Kramers, 2003). There was no research concerning the sectors of employment in which research psychologists typically secure employment. However, the pattern of greater representation in the public sector continues for the research graduates as well. The clustering of research psychologists in the public sector may be typical of the profession or due to similar reasons as suggested for the clinical respondents above.

#### 5.5.4 Tax income bracket

Respondents were asked to indicate which tax income bracket their current annual income fell. The results of these, disaggregated by Masters programme, were shown in Table 25 below.

Table 25. *Frequency Table of Tax Income Bracket for Clinical and Research Respondents*

	Clinical (n=13)	Research (n=16)	Total (N=29)
R0-R181 900	0	2	2
R181 901-R284 100	2	5	7
R284 101-R393 200	1	5	6
R393 201- R550 100	7	1	8
R550 101- R701 300	3	3	6

Table 25 showed that there was a spread of respondents across all of the income brackets. Two research respondents had incomes in the R0-R181 900 income bracket. Notably, no clinical respondents reported income in this bracket. Two of the clinical respondents and five of the research respondents earned in the second income bracket, R181 901-R284 100. One clinical respondent and five research respondents earned in the third income bracket, R284 101-R393 200. Seven of the clinical respondents and one of the research respondents earned in the fourth income bracket, R393 201-550 100. Three clinical respondents and three research respondents earned in the fifth income bracket, R550 101-R701 300.

These results indicated that there was a range of incomes across both groups, with a wider range reported by the research respondents. These reported incomes did not consider household income or other sources of financial capital. As such, these income brackets may not be an accurate representation of the respondents overall financial capital. The identified limitation of tax income brackets for measuring financial capital was important to note, as

according to McQuaid and Lindsay (2005), income may be considered an indication of financial capital, which was one of the factors identified to influence employability. Due to the range of incomes presented, it was likely that financial capital would affect the respondents in different ways. This will be further discussed under section 7.2.2.

### 5.5.5 Employment positions

Respondents were asked to indicate the number of positions they held before being appointed to their current position, excluding positions held for less than six months, positions that were less than 50% part-time employment, and positions held prior to completion of most recent university training. These results were presented by Masters programme in Table 26 below.

Table 26. *Frequency Table of Number of Positions Prior to Current or Most Recent Position for Clinical and Research Respondents*

	Clinical (n=13)	Research (n=16)	Total (N=26)
0 positions	2	0	2
1 position	7	8	15
2 positions	3	4	7
3 positions	0	1	1
5 positions	0	1	1
7 positions	1	0	1
8 positions	0	1	1
15 positions	0	1	1

Table 26 showed that about half of the respondents from each programme were in their second employment position, after graduation from their most recent university training ( $n_c=7$ ,  $n_r=8$ ). Two of the clinical graduates were still employed in their first position since graduation from their most recent university training. The remaining clinical respondent held seven positions since graduation. The remaining four research respondents held three, five, eight and fifteen positions respectively since they graduated with their Masters degrees.

The respondents graduated between three and eight years ago. About half of the respondents were only in their second employment position after graduation, and two from the clinical respondents were still in their first employment position. The prevalence of individuals who had not held many positions since graduation may indicate that they were able to secure longer-term contracts. There were graduates who held more than five positions, and one who held fifteen positions. This possibly indicated a greater proportion of short-term or contract-based employment. The prevalence of individuals who held multiple positions since graduation may be explained by concurrent contracts, as it was specified that this

included positions that were at least 50% part-time. What was unclear was whether these patterns would persist as their careers progressed. The literature cautioned that immediate or short-term employment destinations may not be indicative of longer term employment trends (McCowan & Wyganowska, 2008; Purcell & Elias, 2004). Thus, the results in the present study were cautiously interpreted and it was observed that many graduates held part-time or contractual employment concurrently and/or sequentially.

### 5.5.6 Professional registration

Respondents were asked to indicate their registration status with the HPCSA and thereafter to indicate which category of registration for which they were eligible. The interaction of registration status and registration category was shown in Table 27 below.

Table 27. *Frequency Table of HPCSA Registration Status for Clinical and Research Respondents*

HPCSA status	Eligible and registered				Eligible, not registered		Not eligible, not registered
	Clinical	Research	Research & counsellor	Psychometry	Clinical	Research	
Clinical (n=13)	12	0	0	0	1	0	0
Research (n=16)	0	6	3	1	0	5	1

Table 27 showed that there were a variety of HPCSA registration statuses and categories of registrations. All but one of the clinical respondents were eligible for registration with the HPCSA and registered as Clinical Psychologists. The remaining clinical respondent was eligible for registration as a Clinical Psychologist, but was not registered.

There was more variation in registration status and category among the research respondents. Ten research respondents were eligible and registered with the HPCSA, with varying registrations. Six of these ten were registered as Research Psychologists, three held dual registrations as Research Psychologists and Counsellors. One was registered as a Psychometrist. There were five research respondents who were eligible for registration with the HPCSA as Research Psychologists but were not registered. One research respondent was not eligible for registration with the HPCSA, and therefore was not registered.

Those who were eligible for registration with the HPCSA had met the requirements, for example, completed an internship as an accredited internship site and thereafter had passed the appropriate HPCSA board exam. It was noted that registration must be completed within a certain timeframe, and must be maintained annually. As such, it was possible that the

time in which individuals could register had lapsed, due to time after completion, and therefore they were not registered. Alternatively, it may be that their registration lapsed, and therefore they were no longer registered. As such, the data provided was related to current registration, not past registration or potential future registration. The individual who was not eligible for registration had likely not completed an accredited internship or had not passed the board exam. All of the clinical respondents who currently resided in South Africa were registered with the HPCSA. The individual who was not registered, despite being eligible, was currently residing outside of South Africa. Professional registration outside of South Africa was not investigated, but may be relevant for those graduates who reside and/or work abroad.

There was no literature as to the nature of professional registrations held by psychologists. The results suggested that the clinical psychology programme was directly linked to registration as a Clinical Psychologist. The link between registration as a Clinical Psychologist by graduates from the clinical psychology Masters programme may be due to the fact that registration with the HPCSA “is a pre-requisite for professional practice” (<http://www.hpcsa.co.za/Registrations/Criteria>).

Graduates from the research programme reported various registrations, including dual registrations. The variety of professional registrations held by graduates from the research Masters programme may be linked to the variety of forms that research can take, and the benefit of dual registrations, such as counselling, for conducting research. The results also indicated that there was a portion of the research respondents who had not pursued registration with the HPCSA, despite being eligible. The reason for not pursuing registration with the HPCSA was not explored. However, it may be connected to the type of work pursued by these graduates, as well as whether HPCSA registration was a pre-requisite for employment. The lack of professional registration does not mean that these individuals operated without ethical oversight. All research must go through an ethical review process to ensure that all appropriate ethical and moral standards have been upheld (Bless et al., 2013). It may be that some of the research respondents felt that the ethical oversight of research and ethics committees was sufficient for the work they engaged in. It may be that other individuals' work required the broader ethical oversight of a professional body, such as the HPCSA. In short, registration for graduates from the research programme was not synonymous with professional competency. The lack of registration did not preclude the ability to work as a researcher.

## 5.6 Retrospective assessment of study

### 5.6.1 Rating of study provisions and conditions

Respondents rated 17 aspects of their experience studying at their alma mater. These responses were grouped as negative (1 or 2), neutral (3) and positive (4 or 5) to aid interpretation. The aspects were grouped into three categories. The first category, made of up the eight aspects, had to do with teaching and learning study provisions. The second category, made up of the next five aspects, related to the university infrastructure and equipment. The third category, consisting of the last three aspects, was about student welfare. The results of the clinical respondents' views of their university experience were shown in Table 28 below.

Table 28. *Frequency Table of Rating of University Experience for Clinical Respondents*

Clinical (n=13)	Negative	Neutral	Positive	N/A
Assistance/advice for final examination	0	2	11	0
Teaching quality of lectures	0	2	11	0
Testing/grading system of examinations	0	3	9	1
Structure of degree program	1	3	9	0
Academic advice offered	0	4	9	0
Provision of supervised practical work experiences	2	3	8	0
Chances to participate in research project(s)	3	2	8	0
Opportunity for out of class contact with teaching staff	1	5	7	0
Support of teaching material	1	6	6	0
Equipment and stocking of libraries	3	3	7	0
Quality of buildings	2	7	4	0
Quality of equipment in laboratories/workshops	4	6	3	0
Availability of technical equipment	8	2	2	1
Contacts with fellow students	1	0	12	0
Chance for students to have an influence on university policies	8	3	1	1
Accommodation facilities on campus	1	4	1	7

Table 28 showed the three groupings of aspects for the clinical respondents. The first category was that of study provisions for teaching and learning. Overall, this grouping was rated generally positively by the clinical respondents. The assistance provided for final examinations and the teaching quality provided by lecturers was rated positively by all, but two of the clinical respondents ( $n_c=11$ ). Nine of the clinical respondents had a positive experience of the examination testing system, how the programme was structured, and the academic advice provided. Eight of the clinical respondents had a positive experience of their supervised practical work experience and the opportunities to participate in research projects.



There were a few individuals who had a negative experience of their supervised practical work ( $n_c=2$ ) and their participation in research projects ( $n_c=3$ ).

The next category related to the infrastructure and equipment of the university. This grouping received a more mixed rating. The support of teaching materials ( $n_c=6$ ) and the library ( $n_c=7$ ) were rated positively by about half of the clinical respondents. The quality of the buildings received a positive rating from four respondents, a neutral rating from seven, and a negative rating from two of the clinical respondents. The quality of the equipment in laboratories or workshops was rated positively by three, neutrally by six, and negatively by four of the clinical respondents. The availability of technical equipment received the least favourable rating, with four negative, two neutral and two positive ratings.

The last category was that of student welfare at the university. This group was also varied in the ratings it received. All but one of the clinical respondents rated the quality of their contact with other students positively ( $n_c=12$ ). More than half of the clinical respondents indicated that there was little opportunity for students to influence university policies ( $n_c=8$ ). Six individuals made use of campus accommodation. One individual had a positive experience of the accommodation facilities provided, four neutral and one negative. The results for the research respondents' rating of their university experiences were shown in Table 29 below.

Table 29. *Frequency Table of Rating of University Experience for Research Respondents*

Research (n=16)	Negative	Neutral	Positive	N/A
Structure of degree program	0	1	15	0
Assistance/advice for final examination	1	1	14	0
Teaching quality of lectures	0	2	14	0
Academic advice offered	1	2	13	0
Chances to participate in research project(s)	2	1	13	0
Testing/grading system of examinations	0	3	12	1
Provision of supervised practical work experiences	1	3	12	0
Opportunity for out of class contact with teaching staff	1	1	12	2
Possibility for individual structuring of studies	1	7	8	0
Support of teaching material	1	2	13	0
Quality of buildings	3	5	8	0
Equipment and stocking of libraries	2	4	8	2
Availability of technical equipment	4	5	7	0
Quality of equipment in laboratories/workshops	3	6	5	2
Contacts with fellow students	0	1	15	0
Chance for students to have an influence on university policies	5	5	3	3
Accommodation facilities on campus	2	1	1	12

Table 29 showed the three groupings of aspects for the research respondents. The first category was that of teaching and learning study provisions. Overall, this grouping was rated positively by the research respondents. All but one of the research respondents rated the structure of the degree programme positively ( $n_r=15$ ). Fourteen of the research respondents had a positive experience of the assistance provided for final examinations and the quality of lectures provided. Thirteen of the research respondents provided a positive rating for the academic advice and the research project opportunities. Twelve of the research respondents had a positive experience of the examination grading system, their supervised work experience, and contact with staff members outside of class. There were more mixed views of the possibility to individually structure the research Masters programme. Eight of the research respondents rated this positively, seven neutrally, and one negatively.

The next grouping pertained to the infrastructure and equipment of the university. This grouping received a more mixed rating. Thirteen of the research respondents rated the support of teaching materials positively. Half of the research respondents ( $n_r=8$ ) provided a positive rating of the quality of the library and buildings. The availability of technical equipment was rated positively by seven, neutrally by five and negatively by four of the research respondents. The quality of the equipment in laboratories or workshops was rated positively by five, neutrally by six and negatively by three of the research respondents.

The last grouping concerned student welfare at the university. This group was also varied in the ratings it received. All but one of the research respondents had a positive experience with their fellow students ( $n_r=15$ ). The opportunity for students to influence university policies was viewed as not applicable by three; positive by three; neutral by five, and negative by five research respondents. Four research respondents made use of campus accommodations. One had a positive experience of the accommodation facilities provided, one a neutral experience, and two a negative experience.

In the present study, respondents from both Masters programmes indicated a generally positive rating of the teaching and learning facilities provided in their respective programmes. Respondents from both Masters programmes provided mixed ratings, in that there were positive, neutral and negative ratings provided for all aspects of the infrastructure and equipment of the university. Both Masters groups provided mixed ratings for student welfare, positive ratings for student contact, and generally less positive view of the opportunities for students to influence student policies. The groupings of the university aspects rated above aligned with the research by Mugabushaka et al. (2007).

### 5.6.2 Overall usefulness of studies

Respondents rated the overall usefulness of their studies on five graduate outcomes. These responses were grouped as to negative (1 or 2), neutral (3) and positive (4 or 5) to aid interpretation and are shown in Table 30 for the clinical respondents.

Table 30. *Frequency Table of Perception of Overall Usefulness of Studies for Clinical Respondents*

Clinical (n=13)	Negative	Neutral	Positive
Development of personality	0	0	13
Finding an adequate job after finishing studies	0	0	13
Fulfilling present professional tasks	0	1	12
Economic development of SA	0	2	11
Future professional development/career	0	2	11

Table 30 showed that overall, the clinical respondents felt that their Masters studies were useful, based on the five aspects identified. There was unanimous agreement ( $n_c=13$ ) that their clinical studies were useful for personality development and finding adequate employment after graduation from their Masters degree. All but one of the clinical respondents ( $n_c=12$ ) indicated that their studies were useful for completing their current professional tasks. All but two of the clinical respondents ( $n_c=11$ ) indicated the usefulness of their studies for the economic development of South Africa and for their development of their future career. It was important to note that none of the clinical respondents indicated a negative view for any of the identified aspects. The results of the research respondents' perceptions of the usefulness of their studies were shown in Table 31 below.

Table 31. *Frequency Table of Perception of Overall Usefulness of Studies for Research Respondents*

Research (n=16)	Negative	Neutral	Positive
Fulfilling present professional tasks	0	3	13
Future professional development/career	0	3	13
Development of personality	1	3	12
Finding an adequate job after finishing studies	0	4	12
Economic development of SA	1	6	9

Table 31 showed that overall, the respondents felt that their research Masters studies were useful, based on the five aspects identified. Almost all of the research respondents ( $n_r=13$ ) felt that their studies were useful for completing their current professional tasks and for their professional development and future career. Twelve of the research respondents indicated the usefulness of their studies for their personality development and for accessing

appropriate employment after graduation. One individual felt that his/her studies were beneficial for his/her personality development. Nine of the research respondents felt that their studies were useful for the economic development of South Africa, and six were neutral about this. One participant thought that his/her studies were not useful for the economic development of South Africa.

Overall, both the clinical and research Masters programmes were deemed useful by the respondents on three levels: personally, professionally, and nationally. At a personal level, studies were useful for personality development. On a professional level, studies were useful for accessing immediate employment, current employment activities, and for future professional development. At a national level, studies were useful for improving the economic development of South Africa. The broad usefulness of the professional Masters programmes highlighted that the educational training provided was indeed sufficient. The results in section 5.3.2 identified some skills that the university did not sufficiently contribute towards at the time of graduation. These skills may have been further developed in contexts outside of the university setting, as respondents reported being competent in them in their current work, and that their training was sufficient. This finding underscored McQuaid et al. (2005) and Tomlinson (2017), who reported that skills and graduate attributes were developed in various contexts in addition to the higher education setting.

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## 6 Conclusions

This study aimed to determine the employment patterns and employability profiles of alumni from structured professional psychology Masters programmes. Five objectives were formulated, namely,

1. To establish a demographic profile of the alumni
2. To determine the employment destinations of the alumni
3. To determine the perceived relevance of skills training to the working environment
4. To determine the percentage of eligible graduates who have completed registration as health professionals
5. To establish the alumni's attitude towards their alma mater

In answering the question of what the employment patterns and employability profiles of the alumni were, the core findings of the present study were that the graduates

from both professional Masters programmes were employable and possessed skills that were both relevant and transferable. These skills allowed them to secure employment across a variety of fields, and further suggested potential for long-term employability. Their training prepared them well for accessing employment, for their current work activities, and for their future professional development.

### **6.1 Demographic profile**

The demographic profile of the respondents to the present study was predominantly female, as has been identified as typical of the field of psychology. A third of the respondents were first generation students. This demographic may be due to the demographic profile of the institution in question, which attracts more individuals from historically disadvantaged backgrounds. Most of the respondents were located in the same province that they received their Masters training, suggesting minimal migration of these highly skilled professionals.

### **6.2 Employment destinations**

Most of the graduates from the two Masters programmes were currently employed. Notably, three of the clinical graduates were self-employed, and three of the research graduates were pursuing advanced study. These graduates were employed in a range of fields, suggesting that the skills they possessed were transferable. The transferability of skills may be considered as a positive indicator of long-term employability. Most of the respondents were employed in the public sector, despite existing research which indicated that clinical psychologists are clustered in the private sector. The clustering of clinical respondents in the public sector may be due to the cohort in question, which may have had access to less social or financial capital, and therefore less access to private sector employment, in particular, private practice or self-employment. As such, the private sector may not have been as accessible as the public sector in terms of employment opportunities. The clustering in the public sector may be due to transformation initiatives for those from historically disadvantaged backgrounds, thus making the public sector more accessible than it may be to the White individuals who historically have made up the bulk of psychological practitioners, who have therefore been clustered in the private sector. The greater portion of respondents employed in the public sector may also be because the respondents were still early in their careers, and may move towards private practice later in their careers. The existing norms for research psychologists, in terms of employment sector, were unknown. The results suggested

that it was aligned with that of the clinical psychologists in the current cohort – predominantly clustered in the public sector.

### **6.3 Relevance of skills training to working environment**

The respondents from both programmes indicated that their studies were useful and prepared them well, on a personal and professional level. They were well prepared to access employment, able to conduct their current tasks, and felt as though their training would continue to assist in their future career and professional development. Additionally, their training contributed to their personal development. The training received at the university in question was necessary and relevant for the workplace. However, skills and attributes were developed in more settings than the university setting. Respondents from both Masters programmes highlighted the importance of work experience and continued professional development to remain relevant. Some of the respondents did not feel that their training adequately developed their entrepreneurial skills. The identified lack of entrepreneurial skills training was notable, as there was a portion of the clinical respondents who were self-employed. Some of the respondents suggested that entrepreneurial training would be beneficial to incorporate into the Masters training for both clinical and research psychology. Most of the respondents felt that they were working in a field that was closely related to their field of study. The few that did not feel that their work was related to their studies provided pragmatic reasons for the change of fields, such as income, family responsibility or flexibility. Overall, the present study indicated that the skills learned, and training received at the university in question was relevant for the world of work.

### **6.4 Proportion registered as health professionals**

Most of the respondents were registered with the Health Professions Council of South Africa. All but one of the respondents was eligible for registration with the HPCSA. A resultant 92.31% (12 of 13) of the clinical respondents were registered as Clinical Psychologists. A resultant 66.67% (10 of 15) of the research respondents were registered, with a variety of registrations, including dual registrations. It was noted that clinical psychologists were required to be registered with the HPCSA in order to engage in professional practice. It was notable that even though registration with the HPCSA was not a requirement for researchers, two thirds of the research graduates were registered. It was also

important to note that those who were not registered with the HPCSA were not without oversight, as all research projects must pass an ethics review process.

### **6.5 Attitude towards alma mater**

There was an overall positive review of the respondents' experience of studying at the university in question. The quality of the teaching and learning provided was rated positively. The infrastructure of the university received a combination of mainly neutral and positive ratings. The student welfare experienced by the graduates was mixed. The quality of student contact was overwhelmingly positive, and for those who had utilised campus accommodation, the most common attitude was neutral. The most varied rating among the respondents was that of the opportunities for students to influence university policy, with a range of positive, neutral and negative responses. These generally positive ratings of the university experience, combined with the noted relevance and usefulness of the training received; indicated that the respondents had a positive attitude towards their alma mater.

## **7 Theoretical Formulation of Results**

McQuaid and Lindsay (2005) presented an employability framework which considered the interaction of both supply and demand factors in affecting individual employability. This included the individual factors of demographics, qualifications, employability skills and attributes, alongside personal circumstances and external demand factors. McQuaid and Lindsay's employability framework was used nominally to interpret the findings of the present study.

### **7.1 Individual factors**

McQuaid and Lindsay (2005) identified individual factors which included the employability skills and attributes, qualifications, work experience, demographic characteristics and job seeking. According to the framework, these interact with personal circumstances and external factors to influence employability.

#### **7.1.1 Employability skills and attributes**

The respondents from both groups perceived that they possessed most of the employability skills to a positive extent at the time of graduation. Almost all of them perceived that these employability skills were utilised to a high extent in their subsequent

employment. The perceived high utilisation of skills indicated that the respondents had high levels of the various employability skills. The transferability of these skills was highlighted, which indicated the potential for long term employability. The respondents completed professional Masters degrees in either clinical or research psychology. These professional degrees constitute a formal qualification and a vocation, as evidenced by the eligibility to register with the HPCSA as a psychologist. Thus this particular cohort of graduates possessed a knowledge base of work experience and skills that enhanced their employability attributes as formulated by McQuaid and Lindsay (2005). The respondents' skills and experience were affirmed to enhance their employability by the overall positive appraisal of their degree programmes in terms of relevance to the work place or labour market.

Most of the respondents were currently employed, which suggested that the high levels of knowledge, skills and qualifications achieved by the respondents made them employable. The degrees that they possessed contributed towards the attainment of the skills and work experience, as identified in the results of the present study. It was thus the interaction of this knowledge – attained both through advanced educational training and through vocational training and experience – with the official degree title and vocational experience attained by the individuals that informed their employability.

### **7.1.2 Demographic characteristics**

McQuaid and Lindsay (2005) indicated that demographic factors may mediate access to employment and therefore one's employability. Most of the respondents were female, with seven males and one who reported a non-conforming gender identity. The noted gender demographic of respondents interacted with the posited feminisation of the field of psychology (A. L. Pillay & Kramers-Olen, 2014). The greater representation of females in the field of psychology may indicate that, due to the 'feminisation', females were more readily absorbed into the field. Conversely, the dominance of females in the field of psychology may mean that males were in higher demand in the field of psychology. According to the employability framework of McQuaid and Lindsay (2005), gender would then affect access to employment. Individuals may have the same qualifications, skill set and experience, yet because of their gender, they may be either more employable or less employable. No investigation into the causal link between gender and unemployment was conducted. It is possible that gender, as an individual factor, may impact employability and destinations.



There was a wide age-range of respondents, which, given their current employment status, suggested that their employability was not determined strictly by their age. In fields, such as clinical psychology, which require a greater level of emotional maturity, age may be considered a proxy for maturity. Younger individuals may be considered less employable, due to a combination of a lack of experience and presumed lower emotional maturity or lack of life experience. The causal link between age and the other factors was not investigated. However, there was a wide range of ages, and with almost all of the individuals employed, it suggested that their age did not affect their employability. It was possible that by virtue of pursuing a Masters degree, having been accepted and completing the degree was an indication of maturity beyond what age may suggest. The interaction between age and qualification again highlighted the interaction between vocational skills, training, qualification and demographics in determining employability, as outlined in the framework by McQuaid and Lindsay (2005).

With most respondents being South African, it was difficult to determine whether nationality influenced employability. It was noted that the one individual who was unemployed and seeking employment was not a South African national, while the other two foreign alumni were employed. The potentially limited access to social support or networks as a foreigner may contribute to the ability to access employment. It has been noted that foreign nationals are precluded from government-funded psychology internships and additional paperwork is required in order to be cleared for employment (M. Smith, personal communication, February 19, 2018). These external factors may make it more difficult to access employment. As such, nationality may inform employability, albeit not alone, but interacting with personal circumstances and external factors. The causal link between demographics and employability was not explored. However, the framework by McQuaid and Lindsay (2005) suggested that these demographic factors may affect the ease with which individuals were able to access or secure employment.

### **7.1.3 Job seeking**

The methods used by graduates to search for employment, in interaction with the methods which employers use to advertise vacancies (external factors) was another factor that mediated access to employment and therefore employability (McQuaid & Lindsay, 2005). The variety of employment search methods noted by respondents as useful indicated that the respondents were able to access various mediums through which to apply for employment. Most of the respondents found applying for advertised vacancies helpful, which suggested an

ability to use formal search services or information resources. The additional helpful methods indicated, including enlisting the help of teaching staff and personal connections, suggested an ability to make use of informal social networks. Job searching methods interact with the methods which employers use to advertise vacancies, and whether these align with the methods used by graduates to search for employment. Given that almost all the respondents indicated that applying for advertised vacancies had been useful in their search for employment, it was likely that these graduates had access to the vacancies advertised by employers. The low proportion of individuals who were able to start their own business suggested that self-employment was not accessible to all of the respondents. The ability to pursue self-employment may interact with various other factors, including social and financial capital, as well as connection to professional networks for referrals. It was likely that the more limited access to resources, such as financial and social capital, meant that few of the respondents were able to pursue self-employment as a viable employment option. Conversely, it may have been an inability to access other forms of employment that made the pursuit of self-employment necessary. The link between searching for employment, access to resources and employment pursuits highlighted the multi-faceted nature of employability.

## **7.2 Personal circumstances**

McQuaid and Lindsay (2005) posited that personal circumstances, including household circumstances and access to resources, interact with individual factors and external factors to affect employability.

### **7.2.1 Household circumstances**

The results of the present study suggested that household circumstances had affected the employability of the respondents, as posited by McQuaid and Lindsay (2005). There was an individual, who despite having the same qualifications and relevant knowledge and experience, was not employed at the time of the survey. Instead, her dominant activity was taking care of her family. According to the model, her individual factors were sufficient to make her employable, but her household circumstances and family responsibility meant that she was not employable at the time of the survey. Three individuals indicated that they worked in a field that they did not consider to be closely related to their studies, and that one of the reasons for this was that it allowed them to take their family responsibilities into account. As such, household circumstances may affect the type of employment one does

seek, thus limiting employability to work that allows for these circumstances to be taken into account.

These family responsibilities, above and beyond skills and qualifications, limit the fields of employment that were accessible to these individuals. Family responsibilities were prioritised, possibly at the cost of relevance of employment to their studies, thus demonstrating how household circumstances may affect one's access to employment and therefore one's employability.

### **7.2.2 Access to resources**

McQuaid and Lindsay (2005) identified access to financial capital as a factor of personal circumstances that may affect employability. The income tax brackets of the respondents showed a spread of earnings from the lowest tax bracket (R0 – R181 900) to the fifth bracket (R550 101 – R701 300). It was notable that the two individuals that fell in the lowest income bracket were unemployed. One was the individual who was currently attending to child rearing or family needs, and the other was the individual who was unemployed and seeking employment.

The interaction between family needs and financial capital was identified as affecting employability. The individual attending to family responsibility likely considered this pursuit more important than the limited financial capital that she could personally obtain. What was unknown was whether the prioritisation of family responsibility was possible because she had access to additional financial capital through her partner or extended family. It may have been this access to financial capital that allowed her to remain unemployed and focus entirely on her family needs. In comparison, another individual was employed, pursuing advanced academic studies and taking care of family responsibilities. In his case, there may not have been enough financial capital to allow him to focus solely on family responsibilities, hence the combination of activities. These examples demonstrate how financial capital may influence access to employment or the ability to remain unemployed.

The need for financial capital may also affect the type of employment accepted. Two of the four individuals who did not consider their job to be closely linked to their studies stated that one of the reasons for taking up less related work was that it provided a higher income. As such, access to what may be deemed appropriate financial capital may be more important than the relevance of work to their initial field of study. As such, what may be considered appropriate employment options may be limited by what financial remuneration was offered, thus affecting individual employability.

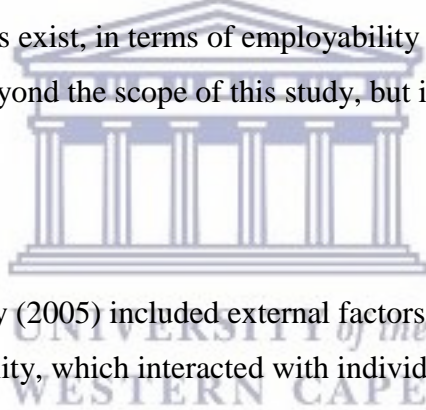
Access to social capital, in the form of personal, family, community and general social support networks, were additionally identified as affecting employability by McQuaid and Lindsay (2005). The variety and type of job search methods utilised by the respondents indicated appropriate social support networks for accessing employment. Parental education level has also been linked to social capital (CHEC, 2013), namely as a form of social support, affecting educational and career aspirations, and access to education and employment networks (Ball, 2010). The parental education levels of respondents indicated that about a third of the respondents were first generation students. While not causal, this suggested that historical disadvantage did not preclude the achievement of postgraduate degrees for this cohort. This highlighted that it was the interaction of various aspects, not just a single factor, which affected access to employment and employability. Historical disadvantage was not directly investigated in the current study, and so the influence that this has on employment destinations and employability could not be appropriately investigated. It is likely that racialised and gendered patterns exist, in terms of employability and employment destinations of the population. This was beyond the scope of this study, but is important area of further study.

### 7.3 External factors

McQuaid and Lindsay (2005) included external factors, such as demand factors, in their framework of employability, which interacted with individual factors and personal circumstances to influence employability.

The nature of local and national labour market determines the demand factors at play which influence employment opportunities and thus employability. As already noted, there is a significant shortage of psychological professions in South Africa (Mashigo, 2017). Furthermore, these professionals have been noted to be clustered in the private sector of major city centres (Cooper, 2014; DoH, 2013). Both locally and internationally, the majority of psychological professionals were female (A. L. Pillay & Kramers-Olen, 2014). These are broad strokes of the nature of the field of psychology in South Africa.

The labour market, thus affected the demand for individuals with certain qualifications, of certain demographics, and in certain sectors and fields. With professional Masters qualifications, the respondents should be in high demand. However, there have been financial constraints across South Africa, potentially limiting the funding capacity to employ



the required numbers of psychological professionals. Thus, it is the interaction of the national economy with social needs that may affect employment availability.

The existence of supportive factors, such as the BEE initiative may have affected access to employment. For example, respondents from historically disadvantaged backgrounds may have had greater access to public sector employment due to these transformation initiatives. Those from advantaged backgrounds may have less access to the public sector employment, and thus pursue private sector employment or self-employment. It was the interaction of demographic factors with external support factors that affected access to employment, and therefore employability.

Furthermore, as some of the research respondents noted, there was a scarcity of jobs in the field of psychological research. Their skills may be relevant to various fields, yet their ability to access various fields was determined by the transferability of the skills they possessed. This again highlighted the interaction of various factors at play in determining employability. One may possess the relevant skills, but not be able to transfer these to other fields, and thus be limited in terms of access to employment. Concurrently, it was the lack of specific positions matching qualifications that increased the need for transferable skills in the first place. Graduates from these professional programmes tend to define their professional identity as psychologists. However, vocational access and employment might require them to be able to consider their skill set in order to identify suitable employment opportunities, beyond looking for positions as psychologists.

The need for entrepreneurial skills was highlighted in the results, which may be understood in terms of the labour market, wherein self-employment may be a solution for the lack of vacancies. However, without the entrepreneurial skills, social and financial capital needed to be self-employed, the pursuit of self-employment did not materialise into a viable employment option for many of the respondents. Again, it was the interaction between skills, access to resources and the labour market demand that affected the respondents' access to certain types of employment.

The nature of the work available, in terms of remuneration and working hours, has already been demonstrated to be an influencing factor in conjunction with family responsibility and access to financial capital, in terms of what employment may be deemed appropriate. Additionally, the recruitment methods used by employers have been demonstrated to interact with methods used by individuals to search for employment determining access to said employment.

#### 7.4 Overall Employability

This theoretical orientation depicted the complex nature of the employability of the respondents from the clinical and research psychology Masters programmes. Employability was determined by the interaction of their skills, qualifications, job search methods, family responsibilities and access to financial and social capital. These factors additionally interacted with the nature and demand of the job market, as well as what types of positions were available and how these were advertised. Combined, these factors determined what positions may be considered as appropriate and accessible to the individuals in question, and therefore how employable they were. It was clear that their employability would likely adjust as one or more of these factors changed, affecting the overall interaction, and therefore the employability of these individuals.

### 8 Limitations

The known difficulties of graduate tracer studies included incomplete records, and resultant small sample sizes and response rates. Every effort was made to overcome these difficulties, using best practices and recommendations from the literature. However, the sampling frame was still not complete, and response rates were still moderately low. As such, the limitation of the present study was that there was reduced power based on the sampling frame.

Another limitation of the study was that race was excluded from the demographic questions. A question regarding parental education level was used as a proxy for previous disadvantage. However, this variable limited the scope of the discussion of the issue of race and representation to an indirect one.

The discussion of the financial capital of respondents was limited, based on the variable measured in the survey. The survey used tax income bracket as an indication of individual earning, however, this did not take household income and other financial capital into account. As such, the discussion about the financial capital available to the respondents was limited.

The present study was not able to identify the amount of time taken to complete the respective Masters programmes, due to an identified phrasing issue in question B9. The question asked for year of graduation or completion of the Masters degree. It was noted that

this question may be ambiguous, as graduation at the identified institution typically takes place in the academic year after completion. As such, the item did not distinguish between date of graduation and date of completion. It was therefore not possible to identify how respondents answered the question, leaving the results vague.

## 9 Significance

The present study contributed in three areas: to methodology, theory and practice.

### 9.1 Methodological contribution

The present study followed the best practices recommended for tracer studies, in particular by conducting a discipline-specific tracer study. One of these recommendations was the use of a discipline-specific sample from a single university, in order to examine issues of a specific field. In this case, professional Masters training in research and clinical psychology were selected as the target programmes within Psychology as a singular discipline.

A second recommendation was ensuring that respondents had graduated more than two years before completing the survey, as immediate employment destinations were not considered indicative of longer term career destinations. The period since graduation was framed as an inclusion criterion which allowed for only graduates who have been out of university for two or more years to be sampled. The resultant sample included respondents who graduated between three to eight years before completing the current survey. Thus, this ensured that the target population was framed to optimise the findings.

A third recommendation was to focus on employability as well as employment destinations, in order to gain a more nuanced understanding of access to employment and employment trends. Careful consideration was taken in the selection and modification of the survey questionnaire (Appendix B), which allowed for the assessment of both employment and employability. Furthermore, permission to use and adapt the instrument was sought and granted by H. Schomburg (Appendix A). In addition, internal consistency was calculated for the scales used in the instrument. Typically, tracer studies do not report on the internal consistency or reliability of scales. In the present study, internal consistency scores of between .72 and .96 were obtained for the respective scales. These scores indicate that the measure was reliable within the current sample, consistently measuring their underlying

concepts. Thus, the present study conformed to best practices and ensured that reliability of the scales with the current sample was established before the results were presented.

A fourth recommendation was to use incentives and multiple reminders to encourage participation and increase participation rates. The present study provided an example of best practice in managing response rates and increasing participation. A target response rate of at least 30% per stratum and an overall response rate of 50% were set. Each stratum was above 30%: the research programme at 55.17% and the clinical programme at 44.83%. The overall response rate of 50% was met. The incentives used in the survey increased participation to well above recorded average response rates for surveys and tracer studies, and were reported in detail. Detailed reporting increased the replicability of the present study and consisted methodological rigour and coherence.

Overall, the methodology employed was reported in detail which illustrated methodological rigour and coherence. The researcher was cognisant that all decisions taken were methodological decisions and therefore attempted to make these explicit and to report the motivations consistently. The detailed reporting of the comprehensive methodological steps taken, incorporating recommendations of the literature, spoke to the rigour with which the study was conducted. The rigour and reporting indicated and increased the replicability of the present study. In short, the present study incorporated general best practices from survey research and tracer studies to provide a template for good practice in graduate tracer study research.

## 9.2 Theoretical contribution

It has not been common for graduate tracer studies to explicitly use a theoretical framework. The present study incorporated McQuaid and Lindsay's (2005) framework of employability. The theoretical tenants underlying the framework informed the selection of the instrument for data collection, as discussed in section 4.7.2. The subscales and comprising items reflected key elements of the theoretical framework. The theoretical framework also informed the adaptations to the instrument. Thus, the methodological coherence was enhanced through the alignment of the framework and the instrument. The present study thus provided an example of how the theoretical framework may be used to inform data collection.

The present study also attempted to use the theoretical framework to provide a formulatory understanding of the findings. The theoretical framework was used nominally in



the formulation of the primarily descriptive results of the tracer study. Thus, the present study contributed significantly to the methodology of tracer studies by providing an example of how theoretical frameworks may be incorporated into graduate tracer study research.

Challenges were encountered in selecting an appropriate theoretical framework, due to the lack of examples of graduate tracer studies explicitly utilising a theoretical framework. As such, there were no best practices to follow of how a framework should be integrated into a graduate tracer study methodology. General principles of theoretical frameworks were utilised, but the largely descriptive nature of graduate tracer study results limited the theoretical interpretation that could be conducted. In short, the present study additionally provides an example of how a theoretical framework may be integrated into a graduate tracer study.

The inclusion of a theoretical framework was particularly important, not only for the methodology, but for the discipline being studied by the researcher. Psychology has been noted a discipline that includes many abstract constructs and philosophical tenets. Thus, the inclusion of a theoretical framework was important despite it not being a requirement for mini-theses.

### **9.3 Contribution to practice**

The present study contributed in various practical ways. The present study established a database of graduates from the Masters programmes in clinical and research psychology, for the identified period from the university in question. This was not available before. The resultant template can be updated annually and provide a more complete sampling frame for future studies, alumni relations and marketing.

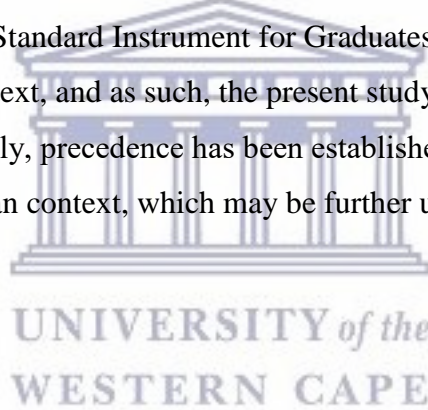
The results of the present study assisted in establishing an employability profile of these graduates. The results provided feedback on the two professional programmes regarding employment destinations, the relevance of skills training and perceptions of the alma mater.

There have been examples of the demographic and employment profiles of clinical and counselling psychologists in the South African context from the HPCSA registry. The present study computed data on research psychologists. Thus, the present study contributed to the expansion of registration categories in alumni research for Psychology graduates. In addition, the aggregated results from earlier registry-based studies could not track or identify gendered patterns related to institutional enrolment patterns or demographics. The present

study thus provides details about the profession of psychology that had not been previously explored and that was reflective of the literature on higher education that clearly reflects racialised and economic patterns in enrolment at institutions.

The present study allowed participants to identify skills that they thought could enhance the academic offering. A programme recommendation that emerged was the lack of entrepreneurial skills training in the Masters programmes. The lack of entrepreneurial training was highlighted by respondents from both Masters programmes. It was recommended that entrepreneurial training be integrated into the respective Masters programmes, in order to assist graduates from these programmes to access self-employment as an option for employment. This finding provides empirical support for the suggestion to include entrepreneurial skills as an integrated module to professional programmes in the faculty where the programmes are offered.

A practical contribution was the generation of data on graduate attributes, using an international instrument. The Standard Instrument for Graduates had not previously been used in the South African context, and as such, the present study produced the first set of data for this instrument. Additionally, precedence has been established for the instrument's suitability for the South African context, which may be further utilised and modified in future research.

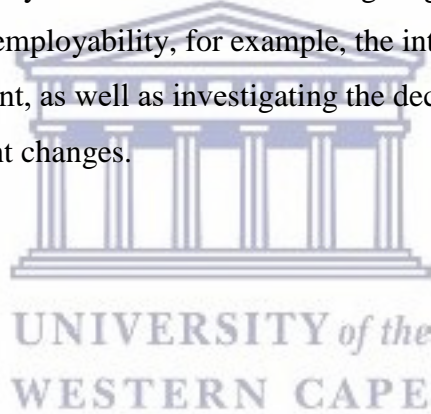


## **10 Recommendations**

The method of department-based graduate tracer studies utilised was helpful for assessing specific issues, such as employment, employability and programme development, and as such may be adapted to various other programmes, departments, faculties or institutions as applicable. It was recommended that the scales used and adapted in the present study be further revised and investigated, in terms of reliability and validity, in order to establish the psychometric properties of the instrument. It was recommended that the present study be replicated with various populations and samples. Firstly, a replication of the same programmes in the same institution could be conducted. This would provide insight into the representation of the current sample, as well as to develop trend-data. Secondly, a replication at different institutions could be conducted, to access a greater representation of the population beyond the cohorts included in this study. This would provide insights into the cohort of psychology Masters graduates as a whole, not just within a single institution.

Thereafter, a broader scale study, perhaps of a faculty, an institution or across multiple institutions may be conducted. This may provide insight into how the various departments compare. Additional, department-specific questions may be incorporated as needed. Studies with larger or more representative samples may support inferential statistical analysis, leading to the exploration of causal and/or predictive relationships regarding employment and employability. It was also recommended that further investigation into the racialised and gendered patterns of historical disadvantage and employability be investigated.

Longitudinal graduate tracer studies may provide greater insight into how employment prospects develop and change over time, how graduates access these various employment opportunities, and what barriers prevent them from accessing them. The results from longitudinal studies may provide insight into the fluid nature of employability, as well as which factors interact at various stages to determine one's employability. The use of qualitative research methods may be beneficial in order to gain greater depth of insight into the more subjective nature of employability, for example, the interaction of factors that determine one's un/employment, as well as investigating the decision-making process of un/employment or employment changes.



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Appendix A: Letter of permission for use and adaptation of instrument

**Subject: Query for permission of instrument use**

**Date: 24 February 2016**

Dear Dr Schomburg and Dr Teichler

I have read much of your work on higher education employment and alumni based research, in particular, "the Higher Education and Graduate Employment".

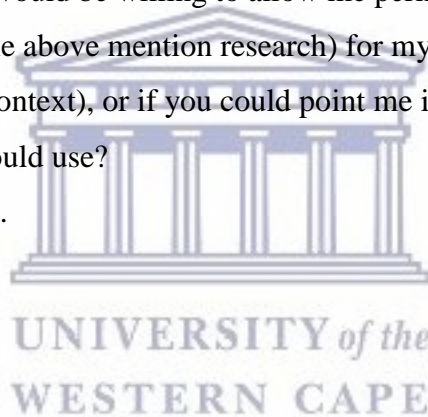
I am currently doing my Masters in research psychology at the University of the Western Cape in South Africa, and am considering a similar study to the one you have conducted, although on a smaller scale. My study will include postgraduate psychology alumni and focus on employment destinations and perceived relevance of the skills training.

I was wondering if you would be willing to allow me permission to use the extensive questionnaire (used in the above mention research) for my research (which I would need to modify for my context), or if you could point me in the direction of other relevant instruments I could use?

Thank you for your time.

Regards,

Janine Senekal



**Re: Query for permission of instrument use**

**Date 24 February 2016**

Dear Ms Senekal,

You can use the questionnaire and modify it as you like. You can find more on the INGRADNET web site. Have a look!

<http://ingradnet.org/questionnaires.html>

Kind regards

Harald Schomburg

*Hohnemannstrasse 43*

*34130 Kassel, Germany*

*Email [h.schomburg@t-online.de](mailto:h.schomburg@t-online.de)*

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*Mobile [+49\(0\)170.836.9311](tel:+49(0)170.836.9311)*

## Appendix B: Adaptation of instrument

Table 32 below shows the source of each item and scale included in the final instrument used in the present study. Any changes made were noted, as well as the reason for the change.

Table 32. *Source of Items included in Final Instrument, Changes Made and Reasons for Changes*

Section and question	Source	Changes made	Reason for changes	
1	Consent Form			
1.1	Consent form and agreement to participate	University template	Adapted	Study relevance
2	Demographic Information			
2.1	Gender	UNITRACE 2010 (Egesah et al., 2014)	“Other” option included	Allow for different gender identifications
2.2	Year of birth	UNITRACE 2010 (Egesah et al., 2014)	Sliding scale format used (1960 – 1995)	To prevent a ‘null’ response
2.3	Civil Status	UNITRACE 2010 (Egesah et al., 2014)	No change	
2.4	Nationality	UNITRACE 2010 (Egesah et al., 2014)	Options given	Most common nationalities at XXX (SADEC countries)
2.5	Area of current residence		New	Context relevance
2.6	If you live in South Africa, which province do you live in?		New	Context relevance
2.7	What is the educational level attained by your mother?	UNITRACE 2010 (Egesah et al., 2014)	Separated from 2.8 (father)	Prevent confusion in response

2.8	What is the educational level attained by your father?	UNITRACE 2010 (Egesah et al., 2014)	Separated from 2.7 (mother)	Prevent confusion in response
2.9	Complete accordingly for your highest degree level attained at: Highest degree level attained from XXX Highest qualification (regardless of institution)	CHEERS 1999 (Schomburg & Teichler, 2006) AAU 1996 (Mugabushaka et al., 2007)	Format edited (table, drop-down options) Limited to highest degree attained at XXX and overall regardless of institution	Simplification; relevance
<hr/>				
3	Relationship between Study and Work			
3.1	At the time of graduation, to what extent did you have the following competencies?	UNITRACE 2010 (Egesah et al., 2014)	Separated from 3.2	Simplification and clarification
3.2	At the time of graduation, to what extent did the university contribute to the following competencies?	UNITRACE 2010 (Egesah et al., 2014)	Separated from 3.1	Simplification and clarification
3.3	To what extent has your study program at the university been a good basis for...	UNITRACE 2010 (Egesah et al., 2014)	No change	
3.4	To what extent have the following competencies acquired during study been utilized in your subsequent employment?	UNITRACE 2010 (Egesah et al., 2014)	No change	
3.5	To what extent does your field of study relate to your area of work?	UNITRACE (Egesah et al., 2014)	No change	
3.6	If you are working in a field that is unrelated to your training, why did you take it up?	UNITRACE 2010 (Egesah et al., 2014)	No change	
<hr/>				
4	Marketability			
4.1	Which methods have been useful in your search for employment?	CHEERS 1999 (Schomburg & Teichler, 2006) UNITRACE 2010 (Egesah et al., 2014)	General usefulness rather than methods used	Aligned with topic
4.2	How important were the following for increasing your marketability in the work place?	CHEERS 1999 (Schomburg & Teichler, 2006) UNITRACE 2010 (Egesah et al., 2014)	General marketability rather than employer recruitment	Aligned with topic
4.3	Continued Professional Development (CPD)...	Loosely based on SIG 1995 Q52 (Schomburg, 1995)	New	Relevance to Psych field
<hr/>				

5	Most Recent or Current Employment			
5.1	What is your current dominant activity?	UNITRACE 2010 (Egesah et al., 2014)	Phrasing; including other relevant categories	Relevance, clarity
5.2	In which field do you/have you most recently worked?	UNITRACE 2010 (Egesah et al., 2014)	Limited list to those relevant for psych graduates	Clarification
5.3	Which category does your current/most recent employer/institution fall?	UNITRACE 2010 (Egesah et al., 2014)	Phrasing edits	Clarity
5.4	In which tax income bracket does your current annual income fall?	UNITRACE 2010 (Egesah et al., 2014)	Edited income brackets based on SARS tax brackets	Relevance, clarity
5.5	How many employment positions have you held before being appointed to your current / most recent position?	UNITRACE 2010 (Egesah et al., 2014)	Phrasing edited; exclusions clarified; format edited; sliding scale clarified	Relevance, clarity
5.6	Regarding HPCSA registration, please indicate which is true for you:		New	Relevance to Psych field
5.7	Which category of registration are you eligible for?		New	Relevance to Psych field
6	Retrospective Assessment of XXX			
6.1	How do you rate the study provision and study conditions you experienced at XXX?	SIG 1995 (Schomburg, 1995)	No change	
6.2	Altogether: How do you rate the usefulness of your studies...	SIG 1995 (Schomburg, 1995)	No change	
7	Comments/Suggestions			
7.1	Do you have any further comments regarding the relationship between study program and employment?	UNITRACE 2010 (Egesah et al., 2014)	Edited for focus on study question	Clarity, simplification



## Appendix C: Final instrument

**Employment and Employability Profiles of Postgraduate Psychology Alumni****A. Consent Form**

I fully understand the research aims, my rights and my role as participant in the study, as well as issues related to confidentiality, as outlined in the information email.

I hereby express my willingness to participate in this study. I am aware of my right to withdraw at any time.

I also grant permission to the researcher to disseminate the information obtained in the following formats:

- Unpublished thesis
- Conference presentation
- Published manuscript or article

I take cognisance that all documents and records will be destroyed at the end of the research process.

1. If you agree to participate in this study, please select the option below.

If you do not wish to participate, please exit the survey.

<input type="radio"/>	I agree to participate in this study
<input type="radio"/>	I do not agree to participate in this study

**B. Demographic Information**

Please provide the following demographic information:

1. Gender

<input type="radio"/>	Female
<input type="radio"/>	Male
<input type="radio"/>	Other (please specify)

2. Year of birth

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3. Civil status

<input type="radio"/>	Married
<input type="radio"/>	Divorced
<input type="radio"/>	Single or unmarried
<input type="radio"/>	Separated
<input type="radio"/>	With partner
<input type="radio"/>	Widow(er)
<input type="radio"/>	Other (please specify)

4. Nationality

<input type="radio"/>	South African
<input type="radio"/>	Namibian
<input type="radio"/>	Zimbabwean
<input type="radio"/>	Other (please specify)

## 5. Area of current residence

<input type="radio"/>	South Africa
<input type="radio"/>	Abroad (please specify)

## 6. If you live in South Africa, which province do you live in?

<input type="radio"/>	Western Cape
<input type="radio"/>	Eastern Cape
<input type="radio"/>	Northern Cape
<input type="radio"/>	Free State
<input type="radio"/>	Mpumalanga
<input type="radio"/>	KwaZulu-Natal
<input type="radio"/>	Limpopo
<input type="radio"/>	North West
<input type="radio"/>	Gauteng
<input type="radio"/>	Not applicable – I do not live in South Africa

## 7. What is the educational level attained by your mother?

<input type="radio"/>	Without education
<input type="radio"/>	Incomplete primary school
<input type="radio"/>	Complete primary school
<input type="radio"/>	Incomplete high school
<input type="radio"/>	Complete high school
<input type="radio"/>	Incomplete technical level
<input type="radio"/>	Complete technical level
<input type="radio"/>	Incomplete higher education
<input type="radio"/>	Complete higher education
<input type="radio"/>	Incomplete postgraduate
<input type="radio"/>	Complete postgraduate
<input type="radio"/>	Unknown
<input type="radio"/>	Other (please specify)



## 8. What is the educational level attained by your father?

<input type="radio"/>	Without education
<input type="radio"/>	Incomplete primary school
<input type="radio"/>	Complete primary school
<input type="radio"/>	Incomplete high school
<input type="radio"/>	Complete high school
<input type="radio"/>	Incomplete technical level
<input type="radio"/>	Complete technical level
<input type="radio"/>	Incomplete higher education
<input type="radio"/>	Complete higher education
<input type="radio"/>	Incomplete postgraduate
<input type="radio"/>	Complete postgraduate
<input type="radio"/>	Unknown
<input type="radio"/>	Other (please specify)

9. Complete accordingly for you highest degree level attained:

	Degree level		Year started (registration)	Year completed (graduation)	Department / School		Major / Specialisation	
Highest degree level attained from XXX	<input type="radio"/>	BPsych	-----	-----	<input type="radio"/>	Psychology	<input type="radio"/>	Clinical
	<input type="radio"/>	Honours					<input type="radio"/>	Research
	<input type="radio"/>	Masters			<input type="radio"/>	Counselling		
	<input type="radio"/>	PhD			<input type="radio"/>	Other		
Highest qualification (regardless of institution)	<input type="radio"/>	BPsych	-----	-----	<input type="radio"/>	Psychology	<input type="radio"/>	Clinical
	<input type="radio"/>	Honours					<input type="radio"/>	Research
	<input type="radio"/>	Masters			<input type="radio"/>	Counselling		
	<input type="radio"/>	PhD			<input type="radio"/>	Other		

### C. The Relationship between Study and Work

Please provide the following information about the relationship between your current employment and the most recent education you received at XXX:

1. At the time of graduation, to what extent did you have the following competencies?

	Not at all				To a very high extent
Knowledge of your field(s) or discipline(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowledge of other field(s) or discipline(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
General knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Internet skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Computer skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working under pressure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working independently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Team work ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problem-solving ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negotiation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Analytical ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Loyalty and integrity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working with people from different cultures and backgrounds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Responsibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Initiative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Project/ program management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to present ideas and information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to write reports and documents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to continuously learn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2. At the time of graduation, to what extent did the university contribute to the following competencies?

	Not at all				To a very high extent
Knowledge of your field(s) or discipline(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowledge of other field(s) or discipline(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
General knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Internet skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Computer skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working under pressure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working independently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Team work ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problem-solving ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negotiation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Analytical ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Loyalty and integrity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working with people from different cultures and backgrounds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Responsibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Initiative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Project/ program management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to present ideas and information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to write reports and documents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to continuously learn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. To what extent has your study program at the university been a good basis for...?

	Not at all				To a very high extent
Starting work?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Further learning on the job?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Performing your current work tasks?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Potential/ future career(s)?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your personal development?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Development of entrepreneurial skills?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4. To what extent have the following competencies acquired during study been utilised in your subsequent employment?

	Not at all				To a very high extent
Knowledge of your field(s) or discipline(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Knowledge of other field(s) or discipline(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
General knowledge	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Internet skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Computer skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Critical thinking	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Research skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Learning ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Communication skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working under pressure	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Time management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working independently	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Team work ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Problem-solving ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Negotiation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Analytical ability	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Loyalty and integrity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Working with people from different cultures and backgrounds	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Leadership	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Responsibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Initiative	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Project/ program management	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to present ideas and information	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to write reports and documents	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ability to continuously learn	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5. To what extent does your field of study relate to your field of work?

Not at all				To a very high extent
<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. If you are working in a field that is unrelated to your training, why did you take it up?

*Multiple responses possible*

<input type="checkbox"/>	Not applicable; I consider my job closely linked to my studies
<input type="checkbox"/>	I have not (yet) been able to find a job more appropriate
<input type="checkbox"/>	In doing this job I have better career prospects
<input type="checkbox"/>	I prefer an occupation which is not closely connected to my studies
<input type="checkbox"/>	I was promoted to a position less linked to my studies than my previous position(s)
<input type="checkbox"/>	I can get a higher income in my current job
<input type="checkbox"/>	My current job offers me more security
<input type="checkbox"/>	My current job is more interesting
<input type="checkbox"/>	My current job provides the opportunity for part-time/flexible schedules, etc.
<input type="checkbox"/>	My current job enables me to work in a locality, which I prefer

<input type="checkbox"/>	My current job allows me to take into account family needs
<input type="checkbox"/>	At the beginning of the career I envision, I have to accept work that is not/hardly linked to my study
<input type="checkbox"/>	Other (please specify)

### D. Marketability

Please provide the following information about your professional marketability

1. Which methods have been useful in your search for employment?

*Multiple responses possible*

<input type="checkbox"/>	Applying for an advertised vacancy
<input type="checkbox"/>	Contacting employers without knowing about a vacancy
<input type="checkbox"/>	Launching advertisements by myself
<input type="checkbox"/>	Being approached by an employer
<input type="checkbox"/>	Contacting a public employment agency
<input type="checkbox"/>	Contacting a commercial employment agency
<input type="checkbox"/>	Enlisting the help of the careers/placement office of my institution of higher education
<input type="checkbox"/>	Enlisting the help of teaching staff at my institution of higher education
<input type="checkbox"/>	Establishing contacts while working during the course of study
<input type="checkbox"/>	Using other personal connections/contacts (e.g. parents, relatives, friends)
<input type="checkbox"/>	Starting my own business/self-employment
<input type="checkbox"/>	Other (please specify)

2. How important were the following for increasing your marketability in the workplace?

	Not at all important				Very important
Field of study	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Main subject / specialisation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Academic results	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Practical/work experience acquired during the course of study	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Practical/work experience acquired prior to the course of study	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reputation of the institution of higher education	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Work experience abroad	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
English proficiency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Additional language proficiency	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Computer skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Recommendations/references from third parties	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Personality and interpersonal skills	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

3. Continued Professional Development (CPD)...

	Disagree		Agree
Complements my work	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Addressed perceived gaps in my training	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Facilitates career improvement	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is important	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Takes up a lot of time	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Is expensive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Allows one to remain current in the field	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has been beneficial	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Facilitates developing professional connections	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assists in maintaining levels of knowledge, skills and ethical attitudes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Assists in acquiring new and updated levels of knowledge, skills and ethical attitudes	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Has a measurable benefit for professional practice	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Enhances and promotes professional integrity	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Programs or events are accessible	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ultimately benefits the patient	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### E. Most Recent or Current Employment

Please provide the following information about your most recent or current employment

1. What is your current dominant activity?

<input type="radio"/>	Employed
<input type="radio"/>	Self-employed
<input type="radio"/>	Not employed, seeking employment
<input type="radio"/>	Professional training
<input type="radio"/>	Advanced academic study
<input type="radio"/>	Child rearing, family care
<input type="radio"/>	Other (please specify)

2. In which field do you work/have you most recently worked?

<input type="radio"/>	Basic education
<input type="radio"/>	Higher education
<input type="radio"/>	Early child development
<input type="radio"/>	Policy
<input type="radio"/>	Corporate
<input type="radio"/>	Social services
<input type="radio"/>	Social development
<input type="radio"/>	Health
<input type="radio"/>	Other (please specify)

3. Which category does your current/most recent employer/institution fall?

<input type="radio"/>	Public employer
<input type="radio"/>	Non-profit organisation/NGO
<input type="radio"/>	Private employer
<input type="radio"/>	Self-employed
<input type="radio"/>	Other (please specify)

4. In which tax income bracket does your current annual income fall?

<input type="radio"/>	R0 - R181 900
<input type="radio"/>	R181 901 - R284 100
<input type="radio"/>	R284 101 - R393 200
<input type="radio"/>	R393 201 - R550 100
<input type="radio"/>	R550 101 - R701 300
<input type="radio"/>	R701 301 and above

5. How many employment positions have you held before being appointed to your current/most recent position?

Exclude:

- Positions held for less than 6 months
- Less than 50% part time employment
- Positions held prior to completion of most recent university training

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6. Regarding HPCSA registration, please indicate which is true for you:

<input type="radio"/>	Not eligible and not registered with the HPCSA
<input type="radio"/>	Eligible, but not registered with the HPCSA
<input type="radio"/>	Eligible and registered with the HPCSA

7. Which category of registration are you eligible for?

*Multiple responses possible*

<input type="checkbox"/>	Not applicable - I am not eligible for registration with the HPCSA
<input type="checkbox"/>	Student
<input type="checkbox"/>	Intern
<input type="checkbox"/>	Community service
<input type="checkbox"/>	Clinical
<input type="checkbox"/>	Research
<input type="checkbox"/>	Counselling
<input type="checkbox"/>	Other (please specify)

## F. Retrospective Assessment of Study at XXX

Please assess your most recent experience of studying at XXX:

1. How do you rate the study provision and study conditions you experienced at XXX?

	Very bad				Very good	N/A
Assistance/advice for your final examinations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Opportunity for out of class contact with teaching staff	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Academic advice offered	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chances to participate in research project(s)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Teaching quality of lectures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Structure of degree program	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Testing/grading system of examinations	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Possibility for individual structuring of studies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Provision of supervised practical work experience	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Contacts with fellow students	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Chance for students to have an influence on university policies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Availability of technical equipment (PCs)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of equipment in laboratories/workshops	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Support of teaching material	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Equipment and stocking of libraries	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Accommodation facilities on the campus	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Quality of buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



2. Altogether: How do you rate the usefulness of your studies for...?

	Not at all useful				Very useful
Finding an adequate job after finishing your studies?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Fulfilling your present professional tasks?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Your future professional development/career?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The development of your personality?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
The economic development of your country?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### G. Comments / Suggestions

1. Do you have any further comments regarding the relationship between study program and employment?

### SURVEY COMPLETED

I thank you for your cooperation and time.

Due to difficulties compiling recent contact details of alumni, **I need your help:**

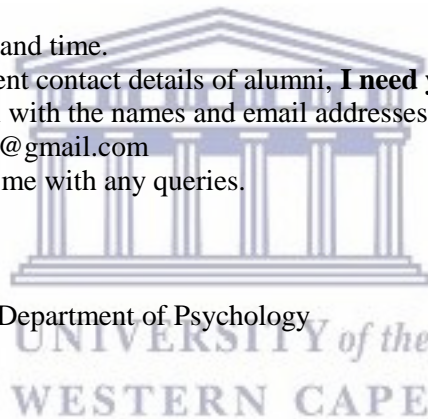
Please will you send me an email with the names and email addresses of any classmates you are still in contact with to: [janine.senekal@gmail.com](mailto:janine.senekal@gmail.com)

You are also welcome to contact me with any queries.

Kind regards,

Janine Senekal

University of the Western Cape, Department of Psychology



## Appendix D: Ethical clearance for conducting research


**OFFICE OF THE DIRECTOR: RESEARCH  
RESEARCH AND INNOVATION DIVISION**

Private Bag X17, Bellville 7535  
South Africa  
T: +27 21 959 2988/2948  
F: +27 21 959 3170  
E: [research-ethics@uwc.ac.za](mailto:research-ethics@uwc.ac.za)  
[www.uwc.ac.za](http://www.uwc.ac.za)

20 June 2016

Mrs JS Senekal  
Psychology  
**CHS Faculty**

**Ethics Reference Number:** HS/16/3/41

**Project Title:** Employment and employability of postgraduate alumni from a historically disadvantaged university.

**Approval Period:** 10 May 2016 – 10 May 2017

I hereby certify that the Humanities and Social Science Research Ethics Committee of the University of the Western Cape approved the methodology and ethics of the above mentioned research project.

Any amendments, extension or other modifications to the protocol must be submitted to the Ethics Committee for approval. Please remember to submit a progress report in good time for annual renewal.

The Committee must be informed of any serious adverse event and/or termination of the study.

A handwritten signature in black ink that reads 'Josias'.

*Ms Patricia Josias  
Research Ethics Committee Officer  
University of the Western Cape*

## Appendix E: Letter of permission to conduct research from Registrar



**STUDENT  
ADMINISTRATION**   
Administration Building, 1<sup>st</sup> Floor  
ashaikjee@uwc.ac.za, nschoeman@uwc.ac.za  
021 959 2110

**11 August 2016**

Dear Janine Senekal

**RE: PERMISSION TO CONDUCT RESEARCH AT THE UNIVERSITY OF THE WESTERN CAPE  
FOR STUDENTS T MTHEMBU, J JARVIS, J KUJINGA, J RUITERS AND F WILLIAMS**

As per your request, we acknowledge that you have obtained all the necessary permissions and ethics clearances and are welcome to conduct your research as outlined in your proposal and communication with us.

Please note that while we give permission to conduct such research (i.e. interviews and surveys) staff and students at this University are not compelled to participate and may decline to participate should they wish to.

Should you wish to make use of or reference to the University's name, spaces, identity, etc. in any publication/s, you must first furnish the University with a copy of the proposed publication/s so that the University can verify and grant permission for such publication/s to be made publicly available.

Should you require any assistance in conducting your research in regards to access to student contact information please do let us know so that we can facilitate where possible.

Yours sincerely

A handwritten signature in black ink, appearing to read 'A. Shaikjee'.

DR AHMED SHAIKJEE  
MANAGER: STUDENT ADMINISTRATION  
OFFICE OF THE REGISTRAR

## Appendix F: Information sheet



## UNIVERSITY OF THE WESTERN CAPE

Department of Psychology  
 Private Bag X 17, Bellville 7535, South Africa  
 Tel: +27 21-959 2283, Fax: 27 21-959 3515  
 mrsmith@uwc.ac.za

### INFORMATION SHEET

**Project Title:** Employment and employability profiles of postgraduate psychology alumni from a historically disadvantaged university.

#### **What is this study about?**

This study will be conducted by Mrs Janine Senekal and Dr M. Smith from the University of the Western Cape. We are inviting you to participate in this research project because you completed postgraduate training in the psychology department at XXX and graduated between 2008 and 2013. The purpose of this research is to explore the employability attributes that might predict employment after graduation from a postgraduate course in psychology.

#### **What will I be asked to do if I agree to participate?**

You will be asked, as an alumnus from XXX's psychology department, to complete an online survey including demographic variables, current and past employment, as well as perceived relevance of training to current employment. This survey will take approximately 20 minutes to complete in an online forum called Survey Monkey.

#### **Would my participation in this study be kept confidential?**

The Survey Monkey website allows follow-up emails to be sent to uncompleted surveys without the researcher accessing the specific email address or details of the participants. This will further protect the anonymity of responses and privacy of participants. Findings will be treated confidentiality.

#### **What are the risks of this research?**

There are no known risks associated with the participating in this research project

#### **What are the benefits of this research?**

The benefits to you include:

- An opportunity to reflect on your training
- An opportunity to reflect on the relevance of your training to your employment
- If you successfully complete the survey, you will be entered into a lucky draw to win 1 of 3 Exclusive Books vouchers worth R150 each, throughout the time the survey is active, and a grand prize Exclusive Books voucher worth R500.

**Do I have to be in this research and may I stop participating at any time?**

Your participation in this research is completely voluntary. You may choose not to take part at all. If you decide to participate in this research, you may stop participating at any time. If you decide not to participate in this study or if you stop participating at any time, you will not be penalized or lose any benefits to which you otherwise qualify.

**Is any assistance available if I am negatively affected by participating in this study?**

Appropriate referrals will be made if unforeseen negative impacts arise.

**What if I have questions?**

This research is being conducted by Mrs Janine Senekal at the Department of Psychology at the University of the Western Cape. If you have any questions about the research study itself, you can contact:

Mrs Janine Senekal  
Dept. of Psychology, UWC  
021-9320453/0820599266  
Janine.senekal@gmail.com

Should you have any questions regarding this study and your rights as a research participant or if you wish to report any problems you have experienced related to the study, please contact:

Supervisor: Dr Mario Smith  
Dept. of Psychology, UWC  
021-9592283  
[mrsmith@uwc.ac.za](mailto:mrsmith@uwc.ac.za)

Head of Department: Dr M. Andipatin  
Dept. of Psychology, UWC  
021-9592283  
mandipatin@uwc.ac.za

Dean of the Faculty of Community and Health Sciences:  
Prof J. Frantz  
University of the Western Cape  
Private Bag X17  
Bellville 7535  
021-959 2631  
[jfrantz@uwc.ac.za](mailto:jfrantz@uwc.ac.za)