SELF-EFFICACY AND LOCUS OF CONTROL AS PREDICTORS OF JOB SEARCH BEHAVIOUR AMONG UNEMPLOYED INDIVIDUALS ACTIVELY SEARCHING FOR EMPLOYMENT IN SOUTH AFRICA

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Submitted as a requirement for Master of Social Science (Psychology), College of Humanities, School of Applied Human Sciences (Discipline of Psychology)

Pietermaritzburg Campus, University of KwaZulu-Natal,

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DECLARATION

This dissertation was undertaken at the School of Applied Human Sciences (Discipline of Psychology), University of KwaZulu-Natal, Pietermaritzburg. Unless specifically indicated to the contrary in text, this dissertation is a product of the author's own work. This dissertation has not been submitted for any degree at any other higher education institution. All completed references have been indicated and properly acknowledged for all sources used.

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ACKNOWLEDGEMENTS

Most importantly, I thank the almighty for strength and for giving me the determination complete this work. Indeed, it has been a long journey.

I would like to thank my Supervisor, Prof K. Durrheim, for his patience, guidance, and support. He showed me what is achievable.

Thank you Prof D. Wassenaar for your guidance regarding the sometimes-complicated ethics processes.

Finally, I would also like to express my sincere gratitude to my family; my wife for her support and understanding while working on this project. Her question “how far are you with your work?” pushed me towards the end goal.
ABSTRACT

The observed increase in unemployment especially after the 2008 global recession saw an increased interest in, particularly, the antecedents of job search behaviour. Job search literature indicates that psychological factors such as self-efficacy and locus of control have positive relationship with and predict job search behaviour. Drawing a dataset from a sample of 151 active job seekers enrolled in job search workshops, the current study sought to determine whether self-efficacy and locus of control predict job search in South Africa. The results demonstrate that neither self-efficacy nor locus of control significantly predict job search behaviour. None of the demographic variables including length of unemployment was associated with job search behaviour.
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CHAPTER ONE: INTRODUCTION AND BACKGROUND

1.1 Introduction and background to the study

South Africa faces a serious challenge of unemployment which currently stands at 27.7% (Statistics South Africa, 2017). The Quarterly Labour Force Survey published by StatsSA (2017) defines unemployed persons as those who are between the age of 15 and 64 years who fall within the following four categories; firstly, those who were not employed in the reference week; and, secondly, were actively looking for employment or attempted to start a business during the four weeks before the survey interview; and, thirdly, were available to start work or a business in the reference week; or lastly, did not actively look for work in the past four weeks but were available and scheduled to start work or a business at a specific date. Unemployment is South Africa was compounded by the 2008 global economic meltdown which contributed to a dramatic increase in the number of people being unable to find employment and many consequential layoffs (Griep, Rothmann & De Witte, 2012; Lloyd & Liebbrandt, 2014; Wanberg, Zhu & van Hooft, 2010). In South Africa, unemployment affects mostly people with low levels of education, females and young Black Africans (StatsSA, 2017).

The negative consequences of unemployment are well documented in employment literature (De Witte, Rothmann & Jackson, 2012; Saks, Zikic & Koen, 2015; Wanberg, Basbug, Van Hooft & Samtami, 2012). At an individual level, unemployment increases hostility, anger, anxiety, social isolation, stress, lower levels of physical health, poor motivation, lower life satisfaction and poor self-esteem. At a family level, the negative effects include marital friction, family conflict, spousal abuse, and decreased family cohesion (De Witte et al., 2012).

Although it is important to study psychological experiences and consequences of unemployment, it is equally important to understand job search behaviour and the constructs associated with job search behaviour. This is because psychological variables have the potential to predict whether, and perhaps how, individuals engage in job seeking behaviour (De Witte, Hooge & Vanbelle, 2010). With the increase in the number of people struggling to find jobs, there has been an increased interest regarding the construct of job search behaviour, antecedents and predictors of job search behaviour (Manroop & Richardson, 2015).
Job search is a multidimensional, dynamic process characterized by an investment in time and effort aimed at getting information about and generating employment opportunities (Kanfer, Wanberg & Kantrowitz, 2001). Job search commences when an individual identifies an employment goal and makes a commitment to pursue it (Boswell, Zimmerman & Swider, 2012; Kanfer, Wanberg & Kantrowitz, 2001; Sun, Song & Lim, 2013). Job search is often characterized by setbacks and discouragement that job seekers encounter during the search process (Wanberg et al., 2012). As a result of these setbacks, job seekers tend to adjust the amount of effort exerted towards attainment of the employment goal, based on the assessment of their progress (Liu, Wang, Liao & Shi, 2014).

The population of job seekers and the contexts within which job search occurs has been examined in literature (Boswell et al., 2012). There are various categories of job seekers such as new entrant/job choice, job loser/unemployment and employed job seeker/turnover (Boswell et al., 2012; Wanberg, Basbug, van Hooft & Samtani, 2012).

Job search is an important aspect of people’s lives and an important research area in disciplines such as psychology, sociology, and economics. In psychology, job search behaviour is commonly assessed using two constructs and methods, i.e., job search effort and job search intensity. Job search effort refers to the amount of energy and the degree of persistence that a job seeker dedicates to their job search process whereas intensity reflects the frequency of job seeking (Manroop & Richardson, 2015; Van Hooft, Wanberg & Hoye, 2012). These were previously described in a meta-analytic review by Kanfer et al. (2001). Current academic research on job search behaviour continues to utilize these methods. Three dimensions of job search have been identified, namely, intensity-effort, content-direction, and temporal-persistence (Kanfer et al., 2001). The intensity-effort dimension has been the focus in academic research in comparison to the other two dimensions (Wanberg et al., 2012).

The conceptual description of job search requires identification of correlates and associated factors playing a role in the job search process. A number of factors have been identified in job search theory and research (Baay, de Ridder, Eccles, van der Lippe & van Aken, 2014; Georgiou, Nikolaou, Tomprou & Rafailidou, 2012; Kanfer et al., 2001; Liu, Huang, Liao & Shi, 2014; Liu, Wang et al., 2014; Manroop & Richardson, 2015; Sun et al., 2013; van Hooft et al., 2012; Petrucci, Blau & McClendon, 2015). Among the various correlates, self-efficacy
and locus of control have received considerable attention in job search behaviour (Kanfer et al., 2001; McGee, 2013; Saks, Zikic & Koen, 2015; Wanberg et al., 2012).

Duration of unemployment is another important factor that is associated with job search behaviour. Engaging in a prolonged job search without finding a job is known to demotivate unemployed individuals, thus leading to a reduction in job search behaviours over time (Faberman & Kudlyak, 2016). Individuals who have experienced longer unemployment periods tend to have lower job search confidence and expectations of finding employment (De Witte et al., 2010; Petrucci, Blau & McCledon, 2015).

1.2 Rationale for the study

Although studies have been conducted in Western, Asian, and other developed countries on the role of psychological variables on job search behaviour, findings have been inconsistent and inconclusive (Liu, Wang et al., 2014). Literature in South Africa has focused mainly on the experiences and the consequences of unemployment and less on how psychological variables influence job search behaviour. As described earlier, the importance of determining how psychological variables influence the process of job search cannot be overestimated. Differences exist among job seekers. There are job seekers who actively engage in job search; while some job seekers decide not to seek employment for various reasons including demotivation after long job search spells. However, there is limited literature on how these various job seeker categories engage in job search behaviour as well as the psychological variables that influence their job search. Literature on the influence of psychological variables such as self-efficacy and locus of control on job search, particularly among active job seekers, is limited- especially in the developing world context. Therefore, there is a need for guidance on the factors that predict job search behaviour in the context of South Africa. For organizations such as the South African Graduate Development Association (SAGDA), such studies are important for employment counselling and intervention development.

1.3 Ethical considerations

Ethics approval for this study was obtained from the Human Research Ethics Committee (non-medical) of the University of the Witwatersrand and reciprocal ethical clearance from the Humanities and Social Sciences Research Ethics Committee of the University of KwaZulu Natal. The study was conducted among unemployed individuals who were
attending job seeking skills workshops within Pretoria and Durban regions. Permission was sought from the organisation that assists unemployed people to find employment. Compliance to the ethical principles such as informed consent, voluntary participation, anonymity, and confidentiality was ensured. Further details about ethical consideration will be discussed in chapter three.

1.4 Outline of the dissertation

The dissertation will be structured into the following chapters:

Chapter 1 provides an introduction and background to the study,

Chapter 2 provides an overview of literature on job search behaviour, the motivation for, and aims of the study.

Chapter 3 provides a description of the research methodology, details of the research design, sampling procedures, the development of the questionnaire, data collection procedures, analysis techniques and ethical considerations.

Chapter 4 presents the results of the study.

Chapter 5 provides a discussion of the results.

Chapter 6 provides limitations, recommendations, and a conclusion.
CHAPTER TWO: THEORETICAL BACKGROUND AND LITERATURE REVIEW

2 Introduction

This chapter provides a review of literature on job search behaviour. The chapter begins with a broad overview of job search, followed by the theoretical approaches to job search. A review of predictors of and studies on job search behaviour is presented.

2.1 An overview and job searching

Over the past two to three decades and particularly after the global recession in 2008, the world experienced a dramatic increase in unemployment rates (Sun et al, 2013; Wanberg et al., 2010). In South Africa, the unemployment rate was 26.5% for the 4th quarter of 2016 and 27.7% in the first quarter of 2017 (Statistics South Africa, 2017). With the current economic situation, there has been an increase in research regarding job search behaviour. It has since been seen as a critical research area; garnering scholarly interest among disciplines such as psychology, economics, and sociology (Kanfer et al., 2001; Manroop & Richardson, 2015, Sun, Song & Lim, 2013). These disciplines have focused on the diverse aspects of job search behaviour. For instance, labour economic models now pay more attention to costs and benefits of job search methods. Sociological research view job search as a relational process which is closely related to the social context within which it occurs. Psychological research focuses attention to personal, motivational, and emotional dimensions of the job search process (Manroop & Richardson, 2015).

Due to the variation in these different disciplines, consistencies and inconsistencies have been observed in conceptually defining and operationalizing job search behaviour (Boswell et al., 2013). Much of the difficulties emanate from conceptualizing job search as a unidimensional construct. However, scholars and theorists have reached a general consensus in defining job search, viewing the concept as multi-dimensional (Bao & Luo, 2015; Boswell et al, 2012; Kanfer et al., 2001; Manroop & Richardson, 2015).
2.2 Definition of job searching

A widely accepted and used definition views job search as a dynamic, self-regulatory, self-directed, and typically self-motivated process aimed at obtaining successful employment outcomes (Kanfer et al., 2001; Sun et al, 2013). According to Kanfer et al. (2001), job search involves the process of identifying an employment goal and making a commitment to pursue that goal. Job search process commences when the employment goal has been identified (Kanfer et al., 2013).

Searching for a job involves a dynamic pattern of activities aimed at achieving the ultimate goal of finding employment (Kanfer et al., 2001; Bao & Luo, 2015). It is a behaviour that requires an investment of time and effort to attain information about labour market options and generate employment alternatives (Boswell et al., 2012). Job search is often a difficult, highly autonomous task that requires job seekers to use complex, multiple strategies, self-control, and self-regulation skills (Boswell et al. 2013; Kanfer et al., 2001; Sun et al, 2013; Wanberg et al., 2012) and is often associated with failure and disappointment which job seekers have to cope with (Bao & Luo, 2015; Dahling, Melloy & Thompson, 2013; Noordzij, van Hooft, Van Mierlo, Sun et al. 2013; Wanberg et al., 2010).

2.3 The context of job searching

Job search occurs in various contexts and the populations of job seekers differ remarkably. Boswell et al. (2012) identified three primary contexts to examine job search behaviour, namely, new entrants/job choice, job loser/unemployment and employed job seeker/turnover (Boswell et al., 2012).

‘New entrants/job choice’ population

Firstly, the new entrant/job choice category comprises of individuals who are seeking employment for the first time after completing their qualifications. This period is regarded as a critical period in the person’s life since it defines the person’s lifelong career trajectory (Guan et al., 2014). Among others, career planning and coping reactions (such as locus of control, job search self-efficacy, company recruitment efforts) are some of the antecedents that new entrants to the job seeking world employ. This category of job seekers tend to have less familiarity with the labour market; and therefore, are still developing their job seeking skills and refining their career objectives as they go along, thus reflecting a rather haphazard
job search process. Generally, this population does not represent a large proportion of the unemployed (Boswell et al., 2012). However, in South Africa the picture is different as individuals aged between 15-34 years remain vulnerable to unemployment at 37.1% in the 4th quarter of 2016 (Statistics South Africa, 2017).

*Job loser/unemployment population*

This category of job seekers includes individuals who have lost their jobs, usually involuntary, and are seeking reemployment (Boswell et al., 2012). They experience various psychological effects associated with involuntary job loss. Much of job search literature on unemployment has focused on this category of job seekers (De Witte et al., 2012; Lim, Lent & Penn, 2016; Oluwajodu, Blaauw, Greyling & Kleynhaus, 2015; Zacher, 2013). Personality traits, demographics, self-regulatory behaviours and situational factors are some of the antecedents of job search among this category (Boswell et al., 2012).

*Employed job seeker/turnover population*

As the name suggests, this category comprises of employed job seekers who are seeking new employment opportunities due to reasons, for example, undesirable work environments. The antecedents of the employed job seeker’s job search process differs to other job seekers and is largely driven by turnover intentions, decisions to quit and evaluation of alternative employment comparative to their current job. Work attitude, perceptions of work environment and the external employment market are some of the antecedents to employed job seeker’s job search (Boswell et al., 2012).

The sample of participants in this current study comprised of new entrants/job choice and job loser/unemployed categories of job seekers. The convenience and the relative ease of finding these categories of unemployed individuals was the main reason for this choice.

2.4 Theories of job search behaviour

In job search literature, five major theoretical perspectives in the field of psychology have been used to understand job search behaviour and to guide the development of interventions. These include behavioural learning theory (Liu, Wang et al, 2014; Lim et al., 2016), social cognitive theory (SCT) (Bandura, 2012; Lim et al., 2016; Zikic & Saks, 2009), theory of planned behaviour (Ajzen 1991; Boswell et al., 2012; Ajzen & Sheikh, 2013), and coping
theory and the self-regulatory theory (Kanfer et al., 2001; Bao & Luo, 2015; Boswell et al., 2012; Manroop & Richardson, 2015; Sun et al., 2013; van Hooft et al., 2012; Wanberg et al., 2010). These theories are discussed briefly below.

**Behavioural learning theory**

The behavioural learning theory was developed using the principles of behavioural learning (Bandura, 1999). The theory suggests that behaviour modification is more effective when the desired behaviour is followed by timely reinforcement and feedback (Liu, Wang et al., 2014). In the context of job search, job seekers must engage in particular behaviours such as searching for and acquiring information about job openings, and preparing and sending job applications (Lim et al., 2016). In some cases, the job seeker may not be using job search behaviours effectively. Therefore, the persons’ job search should be modified through reinforcement of the desired behaviour. For example, if a job seeker uses networking as a job search method and subsequently receives invitations to interviews, that job search behaviour will perhaps be reinforced and repeated in future since it led to the desired outcome. Job search interventions have previously used this theory where feedback and reinforcement for good body language and expressions was provided during mock interviews (Liu, Wang et al., 2014).

**Social Cognitive Theory**

The Social Cognitive Theory regards “human functioning as a product of the interplay of intrapersonal influences, the behavior individuals engage in, and the environmental forces that impinge upon them” (Bandura, 2012, p.11). Of note here is that a human being is seen as an agent who determines one’s own functioning and life events by exerting intentional influence through action (Bandura, 2012).

In terms of the Social Cognitive Theory, goal setting, outcome expectations and self-efficacy are regarded as important elements (Lim et al., 2016; Zikic & Saks, 2009). Thus, in the context of job search, the Social Cognitive Theory regards job search as a process that involves goal-setting, planning, organizing and implementing behaviours seen as necessary to obtain paid employment (Lim et al., 2016; Liu, Wang et al., 2014). Outcome expectancy involves the job seeker’s ability to see a relationship between job search activities and the expected outcome regarding the job search process (e.g., job interviews and job offers).
together with self-efficacy, social support and the absence of barriers, are critical factors that moderate the relationship between goals and action. Employment goals are therefore likely to translate into action if a job seeker believes that he or she has the ability to search for the job, and has the necessary social support and resources to implement and sustain the job search process. Job searching interventions using the Social Cognitive Theory assist job seekers to set goals and ensure that they are able to see a connection between their job search activities and the expected outcome, thus increasing commitment to job search goal and process (Lim et al., 2016; Liu, Wang et al., 2014).

Theory of planned behaviour

The Theory of Planned Behaviour is a prominent theoretical perspective that has been widely used to predict job search behaviours (Boswell et al., 2012; Liu, Wang et al., 2014). This theory suggests that there are a few variables that must be considered in order to explain, understand, and predict any given behaviour. The likelihood of a behaviour occurring is determined by the presence of a strong intention to perform that behaviour, as well as having the necessary skills and abilities to engage in the behaviour and having no environmental constraints preventing the performance of the behaviour. The intention to perform behaviour is, in turn, predicted by the attitude held by an individual toward a given behaviour, the subjective norms associated with that behaviour and the individual’s perceived behavioural control. A person’s behavioural beliefs are what underlie their attitude towards performing a behaviour; their normative beliefs underlie their subjective norms; and their perceived control underlie their behavioural control (Ajzen, 1991; Ajzen & Sheikh, 2013).

The Theory of Planned Behaviour has been shown to significantly predict job search where the intention to seek for a job and the subsequent job search behaviours were determined by the job seeker’s attitude toward job search (e.g., how the job seeker feels about putting effort in their job search process), their subjective norms (i.e., whether the job seekers thinks that significant others think s/he must look for a job) and lastly, whether the job seeker feels s/he has control over their job search process (Fort, Pacaud & Gilles, 2015; Van Hoye, Saks, Lievens & Weijters, 2014). In other words, a job seeker is likely to engage in job search if s/he believes that searching for a job will lead to favourable outcomes (i.e., obtaining an income), believes that his or her family and friends think s/he should start searching for employment and if the job seeker believes in their control of the job search process.
Perceived behavioural control has been operationalized as self-efficacy in the theory of planned behaviour (Liu, Wang et al., 2014; Ajzen & Sheikh, 2013). To enhance job search, interventions using the theory of planned behaviour may target the development of intentions if the job seeker does not have already formulated intentions. However, if the job seeker has an intention to search for a job but is not acting on it, the focus of the intervention may be attitude change, altering the job seeker’s subjective norms through involving family and friends, and targeting the development of control beliefs and self-efficacy to search for a job (Liu, Wang et al., 2014).

Coping theory

Unemployment is known to have severe and negative psychological consequences for unemployed individuals (Solove, Fisher & Kraifer, 2015; Zacher, 2013). Job loss is regarded as an extremely stressful event that requires the use of coping strategies to deal with (Solove et al., 2015). For coping theory, the point of departure is the kind of environmental demands that challenge the person (e.g., unemployed individual) and how that person appraises the situation either as threatening or challenging (i.e., a primary appraisal) as well as which coping strategy to use in order to resolve the stressful situation (Liu, Wang et al., 2014).

When individuals appraise job loss and unemployment as a threatening situation (usually associated with a loss of income), physical and psychological symptoms are likely to occur. In response to that, an unemployed individual may either choose avoidance strategies such as denial of the situation or proactive strategies like contacting recruitment agencies and networking, aimed at resolving the situation. Proactive strategies are primarily problem-focused and are intended to mitigate or eliminate the stressor such as joblessness (Solove et al., 2015). Relocating to cities such as Cape Town, Durban and Johannesburg with better employment opportunities is an example of proactive strategy.

Although these four theories suggest and emphasise positive and possible ways to deal with issues of unemployment, a number of limitations have been noted. In particular, these theories are limited in describing either the primary competences required for effective job search, or the cognitive mechanisms involved in job search and how these mechanisms can be enhanced. Lastly, these theories have not specified the types of job search behaviours that
increase the likelihood of finding employment. In an attempt to provide an integrated model of job search, the self-regulatory theory has been proposed by Kanfer et al. (2001).

**Self-regulation theory**

Self-regulation is a learning process that involves self-generated thoughts and a planned cyclical set of actions that one can adopt to attain one’s goals. Self-regulation is deliberate, automatic and involves self-control of one’s attention, thoughts, affect and behaviour (van Hooft et al., 2012). Self-regulated behaviour also includes how one manages, controls and regulates their emotions and thoughts before, during and after the behaviour has been performed. It includes internal and transactional processes such as mechanisms which enable the guidance of goal-directed activities over time, in diverse and changing situations (Da Motta Veiga & Gabriel, 2015; Noordzij et al., 2013; van Hooft et al., 2012).

Self-regulation involves two core phases, i.e., goal choice and goal striving. Goal choice is a process of selecting goals while goal striving is a process whereby the chosen or existing goal is implemented through action and effort. Three interdependent activities or components of self-regulation support these core phases. The first component involves self-monitoring where a person observes their thoughts and actions towards the achievement of a goal. Self-evaluation is the second component and refers to the comparison that individuals make between their current performance and their desired goal. Lastly, on the basis of this evaluation, a person engages in self-reaction (such as self-satisfaction and self-efficacy) which are aimed at either revising and reallocating ones’ resources and effort expended to achieve the goal or withdrawal from the pursuit of set goals (Da Motta Veiga & Gabriel, 2015; Noordzij et al., 2013; van Hooft et al., 2012).

Self-regulation theory suggests that the attainment of distal goals involving lengthy processes requires the ability to regulate and manage ones’ emotions and cognitions. Self-regulation is particularly important in circumstances where goal attainment involves difficult, boring, and unpleasant tasks (such as job search) and less in tasks that are intrinsically motivating, pleasurable and interesting (Van Hooft et al., 2012).

Applied to job search, self-regulation theory views job search as a self-regulated process that commences when a person has identified and made a commitment to pursue an employment goal, which subsequently activates job search behaviour (Kanfer et al., 2001). The
identification of an employment goal creates a discrepancy between the goal and the desired outcome situation (i.e., finding paid employment). Job search is thus seen as a purposeful, volitional pattern of action which involves directing and maintaining of focus towards fulfilling the employment goal. It is characterized as an autonomous, self-directed, self-managed process that requires maintenance of motivation, effort, and intensity. Since the job search process involves a variety of activities (e.g., networking) and personal resources (such as time) designed to obtain information about job opportunities, self-regulatory theory sees job search as a long process characterized by fluctuating emotions and levels of effort and intensity (Bao & Luo, 2015; Boswell et al., 2012; Da Motta Veiga & Turban, 2014; Georgiou et al., 2012; Kanfer et al., 2001; Kanfer & Bufton, 2015; Manroop & Richardson, 2015; Sun et al., 2013; van Hooft et al., 2012; Wanberg et al., 2010). According to Kanfer et al. (2014), the effort and intensity expended in job search may change direction as the search process continues over time. This is due to the constant monitoring, self-reflection and environmental feedback regarding progress in job search which often leads into (re)adjustment of employment goals, job search strategies; as well as job search effort and intensity expended towards goal achievement (Kanfer et al., 2001; Kanfer & Bufton, 2015; Manroop & Richardson, 2015; Sun et al., 2013; van Hooft et al., 2012; Wanberg et al., 2010).

**Models of self-regulatory theory**

A number of models of self-regulatory theory have been proposed, including the multi-phased model, two phase model and the two-dimensional model (Van Hooft et al., 2012).

*Multi-phased model of Job Search*

Developed in the 1960s, this model is organized sequentially and cyclically. The model begins with the cognitive forethought of four phases, i.e., goal establishment, planning of goal pursuit, goal striving and reflection.

*Phase 1: Goal establishment*

The starting point in any self-regulated behaviour is the identification of goals and goal selection. Goal establishment represents the person’s desires and is a critical step in any self-regulatory process. In order to perform unlearned behaviours such as job search, which often occur within challenging and changing contexts, goal establishment is inherently an important step. Selecting a goal often involves choosing from diverse and conflicting
alternatives. Besides goal selection, development of dimensions such as goal commitment (i.e., degree of attachment to the goal) and importance (e.g., in providing a sustainable income), clarity (e.g., prospects for personal development), and whether the goal is entrenched in a person’s global hierarchy of goals is an important step in the self-regulatory process of job search (van Hooft et al., 2012). Presumably the development of these elements of goal establishment increases the determination and resilience to achieve established goals regardless of obstacles and setbacks.

*Phase 2: Goal pursuit*

Building from the goal establishment, this phase is characterized as a planning phase of the self-regulatory process. It involves a decision about behavioural strategies (e.g., when, how and how long one plans to engage in job search) and the sequence of job search activities while considering individual characteristics and the context of job search. For example, a job seeker may select a strategy of searching for jobs among internet search engines because he or she does not have financial resources and time to visit employment agencies and prospective employers.

Strategy section is followed by selecting and forming intentions for various job search methods and information sources (van Hooft et al., 2012). In his conceptualization of job search process, Blau (1994) made a distinction between formal (e.g., employment agencies and the placement unit of the Department of Labour) and informal (e.g., asking family and friends) sources of job information. However, Kanfer et al. (2001) pointed out that the use of multiple sources is associated with an increased probability of finding employment.

Prioritizing, setting deadlines and forming implementation intentions are also important components of goal pursuit. Prioritizing refers to setting the order for the performance of job search activities (e.g., developing a curriculum vitae, writing an application letter and visiting employment agencies) and attaching deadlines to priority activities. Lastly, developing implementation intentions allows for the specification of where, when and how will the job search plan be implemented. These facilitate the initiation of job search; reduce task delay and procrastination (van Hooft et al., 2012).
**Phase 3: Goal striving**

This self-regulatory phase involves attempts to sustain behaviour performance through cognitive self-control, goal maintenance, self-monitoring and seeking feedback from the environment in order to adjust job search process. This phase is characterized by tracking of one’s job search behaviour (e.g., self-efficacy), monitoring of progress and identifying discrepancies between job search methods and the employment goal. Seeking external feedback from significant others about one’s job search process is often regarded as an important exercise. For example, a job seeker may believe that he or she is using good strategies (e.g., personally visiting potential employers) but through feedback from others, s/he may realize that the strategy is ineffective in the context of labour brokers in South Africa.

**Phase 4: Reflection**

In the context of self-regulatory theory of job search, reflection refers to the process of evaluating the effect of goal striving in the achievement of established goal(s). Reflection enables a cyclical review of the preceding phases and provides an opportunity to change, adapt and (re)adjust goals and strategies used in job search. It is through the process of reflection that job search effort and job search intensity changes direction as job search process continues over time (Kanfer et al., 2001; van Hooft et al., 2012).

**Two-dimensional model of job searching**

According to this model developed by Blau (1994), job search behaviour can be divided into dimensions; preparatory and active job search behaviour. Preparatory job search behaviour include sourcing or collecting information about the labour alternatives and opportunities (e.g., networking with family and friends) and identifying potential leads. Active job search behaviour involves engagement in actual job search activities such as responding to advertisements and attending interviews (Bao & Luo, 2015; Blau 1994; Chen & Lim, 2012; Schaffer & Taylor, 2012). Both preparatory and active job search behaviours are self-regulated, goal driven behaviours and are associated with finding employment (Chen & Lim, 2012; Schaffer & Taylor, 2012). In a study comparing internet versus traditional methods of job search, Kuhn and Skuterud (2000) found that unemployed individuals tend to use traditional methods such as asking friends and contacting employers directly. In South Africa,
personal networks are the most method of finding jobs followed by reading newspapers to find information about job openings (Kruss, 2016).

2.5 Dimensions guiding job searching research

A review of job search literature identified three dimensions that have guided job search research. These are *content-direction, effort-intensity, and temporal-persistence* (Kanfer et al., 2001). Content-direction dimension concerns the type and quality of activities a job seeker engages in. Effort-intensity dimension refers to how hard a job seeker tries to find employment and how often one engages in job seeking activities. Temporal-persistence dimension pertains to the level of persistence one has in job seeking (Manroop & Richardson, 2015). In studying job search behaviour, researchers would assess the persons’ job search behaviour by focusing on each of these dimensions and making a determination regarding the types of activities one uses, such as contacting family and friends, and the quality of these activities thereof. The amount of effort and frequency of such activities as well as how persistent the job seeker engages in the job search process would also form part of the assessment.

Studies examining job search commonly use the effort and intensity dimension and less of content-direction and temporal-persistence to assess job search behaviour. The focus in many of job search studies has been on assessing the general energy that one exhibits during the process of job search (i.e., effort) and how frequently one engages in job search activities such as sending applications, interviews with employers (Boswell et al., 2012). A meta-analytic study (Kanfer et al., 2001) and other studies (Kanfer & Bufton, 2015; McGee & McGee, 2016; Phillips, 2014; Saks et al., 2015) have shown that the amount of time and effort one expends in job seeking is associated with the amount of effort and time one expends in their job search process. However, as the process continues over time, there is likelihood that effort and intensity would fluctuate depending on the kind of feedback one receives from the environment. Therefore, in order to succeed in finding a job, job search intensity (an important determinant of job outcomes) must be maintained over time; and this is often difficult to do (Boswell et al., 2012; Kanfer et al., 2001; Manroop & Richardson, 2015; Van Hooft, et al., 2012; Wanberg et al., 2012). This concept is described in more detail below.
2.6 Job search intensity

Job search intensity is an important concept in job search literature. The concept job search intensity refers to the frequency and time a job seeker spends in job search activities trying to find employment during a reference period (Kanfer & Bufton, 2015). In addition to frequency, Zacher (2013) suggested that there must also be a focus on the scope of different job search activities. Measures of job search intensity are therefore targeted at capturing the intensity of job search by measuring the number of times a job seeker has used each alternative search methods and how many applications were made during a reference period, usually a four-week period (Van Hooye, 2013). Individual variations in job search intensity have been observed among individuals during job search process (Da Motta Veiga, 2014; Sun et al., 2013; Wanberg et al, 2012), suggesting the importance of discussing the antecedents of job search behaviour.

2.7 Antecedents of job search behaviour

The variations in job search behaviour and specifically job search intensity emerge from stable factors (such as personality) and transient factors (such as stress, emotions, and self-efficacy) (Da Motta Veiga & Turban, 2014; Faberman & Kudlyak, 2016; Kanfer et al., 2001). Job search intensity is determined by a number of factors including employment commitment, social support (Schaffer & Taylor, 2012; Solove et al., 2015), perceived control and locus of control (McGee, 2015; McGee & McGee, 2016; Caliendo, Cobb-Clark & Uhlendorff, 2015), self-efficacy (Bandura, 2012; Bao & Luo, 2015; Kanfer et al., 2001; Yeo & Neal, 2013), duration of unemployment and demographic factors such as education level, age and gender (Da Motta Veiga & Turban, 2014; Kanfer et al, 2001; Liu, Wang et al., 2014; Manroop & Richardson, 2012).

Self-efficacy, locus of control and duration of unemployment have been included in a number of the models mentioned in job search literature that is said to determine the antecedents of job search behaviour. These variables have been categorized into generalized expectancies and self-evaluations and they differ from broader personality traits (Kanfer et al., 2001; Schaffer & Taylor, 2012). This current study does not focus on the broader traits and other antecedents of job search behaviour, but, rather on locus of control and self-efficacy. Besides the fact that the role of these variables has been widely studied in job search literature (Boswell et al., 2012; Georgiou et al., 2012; Saks et al., 2015; ), it has been shown that they
are both closely linked to job search behaviour and job search outcomes (Saks et al., 2015). Further, as a highly autonomous activity, job search behaviour requires the ability to self-regulate and belief in the ability to effect change (Wanberg et al., 2012), which renders self-efficacy and locus of control crucial individual characteristics. Hence these two independent variables were chosen in this study. However, there is a dearth of literature regarding the role of self-efficacy and locus of control on job search in the South African context.

2.7.1 Self-efficacy

Self-efficacy refers to a person’s belief in their ability to mobilize one’s cognitive resources and the motivation necessary to perform behaviours and meet situational demands (Bandura, 2012). It encompasses a set of belief systems that a person has regarding their estimation of whether and how they can accomplish a behavioural goal and ultimately change a situation. Self-efficacy is also concerned with facilitating positive coping behaviours (Schaffer & Taylor, 2012). Social Cognitive Theory proposed that the effect of self-efficacy on behaviour is influenced by three dimensions. These are: (i) the magnitude or particular level of difficulty of a task, (ii) the certainty a person has about performing a given behaviour at a particular level of task difficulty and (iii) whether one can generalize their belief systems across situations and tasks (Chen, Gully & Eden, 2001).

As mentioned earlier, Social Cognitive Theory was founded on an agentic perspective which argued that human beings (seen as agents) are able to exert intentional influence on human functioning and events through actions (Bandura, 2012). In terms of this theory, human functioning is an outcome of the interplay between cognitive influences, behaviour and environmental forces or events; referred to as the triadic reciprocal causation (Bandura, 2012). However, Social Cognitive Theory does not see the environment as a universal force but varies across three types. Firstly, imposed environment exigently acts on the individual; however, a person can subjectively interpret and react to this environment. Secondly, selected environment only comes into being when selected or activated by the person. Therefore, the kind of life an individual follows is affected by their choice of environment and activities they choose to engage in. Lastly, the constructed environment is created by people (Bandura, 2012; Butz & Usher, 2015).
In terms of the Social Cognitive Theory, self-efficacy and goal setting are closely related concepts (Bandura, 2012). According to Luszczynska, Scholtz and Schwarzer (2005), self-efficacy beliefs indirectly affect behaviours through goal setting and goal intentions. Therefore goals that people set for themselves (together with outcome expectations and attributions for success and failure) play a pivotal role in the challenges people decide to focus on as well as how well they motivate themselves and persevere when facing difficulties (Bandura 2012; Luszczynska et al. 2005). Consequently, individuals who possess higher levels of self-efficacy tend to set higher goals and exert higher levels of effort in realizing their set goals. In contrast, individuals with lower levels of self-efficacy tend to lower their goals and reduce their levels of effort when they face challenges. In the context of job search behaviour, Lim et al. (2016) has shown that job search behaviours are best predicted by job search goals over a 3-month period. Goal setting elicits self evaluations (such as self-efficacy) and self-reactions which activate efforts towards achieving set goals (Bandura, 2012). Thus, the evaluation of progress towards goal attainment serves as a crucial platform to adjust one’s subsequent behaviour through the review of goals (Dahling, Melloy & Thompson, 2013; Lent & Brown, 2013; Liu, Wang et al., 2014).

Social Cognitive Theory identifies two mechanisms through which goal setting and self-efficacy influence motivation and behaviour performance, i.e., discrepancy production and discrepancy reduction (Sitzmann & Yeo, 2013; Yeo & Neal, 2013). Discrepancy production refers to situations where a person sets challenging goals that require a higher level of performance than previous behaviours. On the other hand, discrepancy reduction entails striving to eliminate the discrepancy between goals and performance (Sitzmann & Yeo, 2013; Yeo & Neal, 2013). A job seeker who sets higher employment goals (i.e., discrepancy production) is more likely to experience a gap between their set goal(s) and outcome(s). Through discrepancy reduction (and goal pursuit as a phase of self-regulatory theory) the job seeker will likely reduce or eliminate the gap between their goal(s) and outcome(s) (Sitzmann & Yeo, 2013; Yeo & Neal, 2013). Adjustment of one’s job search intensity becomes important when there is a gap between goals and performance (Liu, Huang et al., 2014).
Sources of self-efficacy

According to Bandura (2012), there are four ways through which self-efficacy develops. These are: (1) enactive mastery experience, (2) vicarious experience, (3) verbal persuasion, and (4) physiological and affective states.

Enactive mastery experience

In terms of enactive mastery experience, self-efficacy beliefs are a product of how people master their experiences. If a person only encounters difficult and challenging experiences, they learn to overcome obstacles through perseverance and continuous effort (Bandura, 2012; Prestwich et al., 2013). They also tend to expect that outcomes will come from hard work and are not easily discouraged by failure and setbacks; build resilience through mastery of experience and regard failure as informative rather than demoralizing (Bandura, 2012). On the other hand, people who experience easy successes tend to learn to expect quick and easy outcomes and tend to be easily discouraged by failure (Bandura, 2012). For example, a job seeker who has mastered their job search experiences and learned to manage failure and setbacks is more likely to become resilient and perseverant in their job search process as compared to a job seeker who has not mastered their experiences.

Vicarious experience

Self-efficacy also develops through vicarious experience or social modelling (Bandura, 2012; Prestwich et al., 2013). This is when individuals see people they perceive as similar to them succeed through, for instance, perseverance and effort. The experience of observing others succeed raises a person’s beliefs in their capacity to perform a given behaviour. Vicarious experience highlights the importance of role models (Bandura, 2012; Butz & Usher, 2015).

Verbal persuasion

Verbal persuasion is characterized by the types of messages people receive from others and whether they feel persuaded to believe in such messages (Bandura, 2012). Therefore, when a person feels persuaded by others’ messages, they are more likely to develop self-efficacy beliefs. They become more perseverant when they encounter difficulties and setbacks due to a belief in their capacity to perform a behaviour, thus increasing their chances of success (Bandura 2012, Butz & Usher, 2015).
Physiological and affective states

Physiological and affective states are feelings individuals experience when they think about or engage in an activity (Bandura, 2012; Prestwich et al., 2013). This is primarily about the physical and emotional states a person has when they judge their own beliefs about performing particular tasks. In order to strengthen efficacy beliefs, individuals must reduce anxiety, build physical strength, and correct any misreading of physical and emotional states. Hence self-regulatory theory of job search regards self-management and self-control as important attributes of self-regulated behaviour (Bandura, 2012; Butz & Usher, 2015).

Effect of self-efficacy on human functioning

According to Bandura (2012), self-efficacy affects human functioning through affective, cognitive, motivational, and decisional processes. Beliefs about self-efficacy contribute to personal change and self-development by affecting options people consider as well as the choices they make at crucial points in their lives (Bandura, 2012; Prestwich, 2013). Efficacy beliefs have an influence on whether individuals think optimistically or pessimistically; in a manner that is self-enabling or self-debilitating (Bandura, 2012). It also affects how well people motivate themselves when they encounter challenges. In the face of difficulties, people motivate themselves through their set goals, their expected outcomes, and the attributions they attach to their successes and failures (Bandura, 2012). Lastly, the beliefs a person has about their coping abilities are crucial in the regulation of their emotional state. This affects their emotional life and susceptibility to stress and depression (Bandura, 2012).

Bao & Luo (2015) proposed that self-efficacy strongly affects an individual along four domains. Firstly, it affects individuals’ choices and their adherence to their goals. Secondly, it affects the amount of effort they are willing expend as well as their attitude towards challenges encountered during behaviour performance. Thirdly, self-efficacy affects how a person thinks; and lastly, the efficiency of a behaviour. This conceptualization of self-efficacy indicates that human beings have some degree of perceived and/or actual behavioural control (Bandura, 2012; Guan et al., 2013).

In the context of job search, exposure to job search skills that are often provided to unemployed job seekers by organizations such as SAGDA provide an opportunity for job seekers to learn how to master their job search process and experience. They are often
exposed to individuals who have experienced success and failure in their job search, can perhaps learn from them and are verbally persuaded to actively engage in job search. It is often these characteristics that distinguish active job seekers from passive job seekers. Therefore, this study targeted active job seekers to determine whether their efficacy beliefs could predict their job search intensity.

Measurement of self-efficacy

Self-efficacy is commonly understood and conceptualized either as a task specific or domain specific construct (Guan et al., 2014; Saks et al., 2015). However, another perspective that views self-efficacy as a generalized construct exists. This perspective regards self-efficacy as a rather broad and stable sense of personal competence to deal with various challenging situations in the environment. Self-efficacy is seen as a primary predictor of a variety of behaviours rather than specific behaviour (Luszczynska et al., 2005). Generalized self-efficacy refers to the person’s perception of their ability to perform across a spectrum of achievement situations (Chen et al., 2001). Regardless of how one conceptualizes self-efficacy, Bandura (2012) argues that sound conceptual specification of what determines the performance in a particular behaviour is required.

General self-efficacy is commonly measured using a general self-efficacy scale that taps into self-efficacy as a general characteristic of a person or broad beliefs about personal competency (Luszczynska et al., 2005). Conversely, domain specific self-efficacy is commonly measured using domain specific or task specific scales targeting specific behaviours (Artino, 2012; Saks et al., 2015).

Job search behaviour involves a number of activities, such as preparing a resume, networking, contacting and/or visiting potential employers and employment agencies as well as searching for job openings online. These activities are categorized as preparatory and active behaviours (Blau, 1994) and may be regarded as specific tasks or domains. Each specific task comes with its own challenges. As suggested by Luszczynska et al. (2005), self-regulation of cognitions such as attention and cognitions for specific domains may be related to general self-efficacy. Therefore the general self-efficacy scale may be a suitable tool to measure job search behaviour where a number of tasks within specific domains must be conducted in order to find employment. Further, job search self-efficacy scales used in
previous research have been inconsistent and lacked consensus due to varying measures used. The reliability of job search self-efficacy scales has also been questioned (Saks et al., 2015).

2.7.2 Locus of control

Locus of control was developed by Julian Rotter in 1966 as part of the social learning theory based on the understanding that people inherently seek positive stimulation and/or reinforcement and avoid unpleasant situations (April, Dharani & Peters, 2012). Central to social learning theory and Rotter’s conceptualization of locus of control is the notion of control of reinforcement (April et al., 2012; Caliendo et al., 2015). The concept of reinforcement refers to a situation where the likelihood of a response is increased or decreased in the future depending on whether the outcome is favourable or unfavourable; positive or negative reinforcement, respectively. Reinforcement plays a direct role in strengthening a person’s anticipation that a particular behaviour or event will likely lead to similar reinforcement. So, when a person develops an expectation of a possible reinforcement, s/he also learns to discriminate or make a link between behaviour and outcomes, thus formulating their locus of control (April et al., 2012; Cobb-Clark, 2015; Lefcourt, 2014; Rotter, 1966).

Locus of control also refers to the belief that an individual has about the relationship between their actions and consequences in life and reflects a perception about their control over life events, for example a belief that expending more effort in one’s job search process may lead to better job search outcomes (April et al., 2012; Cobb-Clark, 2015; McGee & McGee, 2016; Lefcourt, 2014). Rotter (1966) suggested that locus of control has two opposing dimensions that reflect the degree to which an individual believes that what happens in their lives is either within or beyond their control. These dimensions represent belief systems in a form of an internal as well as external locus of control (April et al., 2012).

On one hand, internal locus of control individuals tend to see outcomes in their lives as influenced and determined by their abilities, decisions, effort, and actions (Caliendo et al., 2015; McGee, 2013). Internal individuals believe that the reinforcement they receive from the environment is a result of their own doing. This belief reflects a strong positive connection between their actions and the consequences of their actions (April et al., 2012; Rotter, 1966).

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Therefore, job seekers who have an internal locus of control are more likely to exert effort and intensity in their search process because they believe that their actions will lead to finding employment (Caliendo et al., 2015).

In contrast to internal individuals, individuals with an external locus of control (i.e., external individuals) believe that outcomes in their lives are primarily influenced by external forces such as chance, luck, and other people (April et al., 2012; Caliendo et al., 2015; Lefcourt, 2014). They believe they have no control over life events and that their actions will not result in positive outcomes. For these individuals, there is no association between effort and outcomes (April et al., 2012; Caliendo et al., 2015; Lefcourt, 2014; McGee, 2013; McGee & McGee, 2016).

There are underlying beliefs that distinguish an internal from an external locus of control. These are control by powerful others, chance or being lucky, fate, and a belief in the unpredictability of the world. Thus, during times of success, individuals with external locus of control do not see their actions as influencing their success but they attribute their success to the assistance by powerful others, the ease of a task or having luck. Internal individuals have an underlying belief that their actions are the primary determinant of their outcomes (April et al., 2012; Rotter 1966).

A debate on the distinction between attribution of causality and the two control dimensions has been made by Lefcourt (2013). The debate centres on how outcome attribution causality is assigned to the external environment or internal attribution. Rotter (1966) equated internal attribution with internal control and external attribution with external locus of control. For instance, as the job search process continues, a job seeker with internal locus of control may believe that their success in finding employment depends on their effort, whereas a job seeker with external locus of control may think that labour market forces hamper job search success and possibly re-adjust or reduce their search intensity.

**Measurement of locus of control**

As a pioneer in the concept of locus of control, Rotter (1966) developed a 23-item scale to assess whether people think that life events are controlled by their own efforts or by external influences. This is a binary scale that requires a respondent to choose from either an internal or external interpretation of the situation or the event (better known as the internal-external
locus of control scale. It provides some predictability of a person’s interpretation across all domains, thus seeing control belief system as a personality trait (Rotter, 1996).

In terms of scoring of the Rotter’s Internal-External locus of control scale, items reflecting internal locus of control are allocated a score of one and items reflecting external locus of control allocated zero. Scores on each item are then added to obtain a total score. The final score can range between zero and 23. High scores on the scale indicate internal locus of control while lower scores indicate external locus of control (Rotter, 1966).

2.7.3 Duration of unemployment

Duration of unemployment is operationally defined as the number of days a person has been unemployed for (Lim et al., 2014). This construct plays an important role in the job search process. Inconclusive and inconsistent findings about the relationship between duration of unemployment and job search intensity have been reported in job search literature (Kanfer et al., 2001; Krueger & Mueller, 2010; Lim et al., 2014; Manroop & Richardson, 2015; Zacher, 2010). Lim et al. (2014) suggest that job seekers who have been unemployed for longer periods often do not benefit from job search interventions. This is because unemployed individuals tend to isolate themselves from the social environment, lose the support of their family, friends, and other associates, and experience a decline in writing and reading ability and self-control of emotions and motivation- that is regarded as crucial characteristics in self-regulatory theory of job search. A meta-analysis conducted by Kanfer et al. (2001) found that there was a significant negative relationship between duration of unemployment and job search intensity; where the longer a person is unemployed, the less intense their job search will be. Faberman and Kudlyak (2016) also found that a reduction in job search behaviour (in terms of the number of applications sent per week) is associated with the longer search duration. Comparing eligible and ineligible unemployment insurance individuals, Krueger and Mueller (2010) found that job search intensity remained steady throughout the unemployment period among ineligible individuals. However, there were fluctuations in job search intensity among insurance eligible individuals where job search intensity increased sharply between four and six months of unemployment. This is consistent with the study by Faberman and Kudlyak (2016).
2.8 Empirical studies on self-efficacy, locus of control and job search behaviour

The influence of self-efficacy, locus of control and demographic factors in job search behaviour has been reported in job search literature (Bao & Luo, 2015; Boswell et al., 2012; Saks et al., 2015). This section provides an overview of these studies.

Self efficacy and job searching

According to Saks et al. (2015) the role of job search self-efficacy has been widely studied and reported as one of the most commonly discussed variables in the job search literature. Self-efficacy is positively related to, and is a robust predictor of, job search behaviour and successfully find employment (Bao & Luo, 2015; Boswell et al., 2012; Georgiou et al., 2012; Guan et al., 2013; Liu, Wang et al., 2014; Saks et al., 2015; Schaffer & Taylor, 2012). A study conducted among individuals who had been unemployed for an average of nine months showed that self-efficacy accounted for 27% of the variance in active job search behaviour (Schaffer & Taylor, 2012). This is consistent with the previous meta-analytic review conducted by Kanfer et al., (2001). These findings indicate that self-efficacy is an important factor in job search behaviour. Liu, Wang et al. (2014) showed that interventions targeted at boosting self-efficacy, positive results in job search behaviour were observed. This study showed that the odds of finding employment were 3.25 times higher among the intervention group compared to the control group of job seekers. The odds dropped to 1.73 times higher when the self-efficacy was not boosted (Liu, Huang et al., 2014).

Other studies however, have reported that self-efficacy is not related to job search behaviours (Bao & Luo, 2015; Noordzij et al., 2013). Testing for the effects of cognitive self-regulation variables such as learning goal orientation training, job search intentions and self-efficacy on employment status, Noordzij et al. (2013) found that all the variables except self-efficacy had a significant effect on job search. Lim et al. (2016) found that self-efficacy was not directly related but was only linked to job search behaviours through job search goals. In other words, whether a job seeker had high levels of self-efficacy did not matter; but rather when a person had clear job search goals, did self-efficacy play a role in job search behaviour. This is consistent with self-regulation theory which suggested that the job search process only commences when an employment goal has been identified and a commitment to pursue it has been made (Kanfer et al., 2001). Therefore, without an employment goal, a job seeker may not be expected to commence job search.
Locus of control and job searching

According to Caliendo et al. (2015), there is an assumption in standard job search theory that unemployed people possess some control regarding the possibility of finding employment through their job search effort. As clearly spelt out by McGee and McGee (2016), the primary goal of these studies was to establish the influence of locus of control on job search behaviour by focusing on the relationship between one’s effort and outcomes in job search. Of importance, are the perceptions of control individuals have, i.e., believing that one can control the outcome of the job search process may be a positive belief that bolsters an individuals’ ability to successfully perform job search behaviours (Lim et al., 2016). For instance, in situations where an unemployed job seeker is uncertain about whether their search effort will likely result into (re)employment, the decisions about the regulation of their job search behaviours are perhaps influenced and informed by their locus of control (McGee, 2013).

Job search literature shows that there is a positive correlation between locus of control and job search behaviours (Caliendo et al., 2015; Cobb-Clark, 2015; McGee, 2013; McGee & McGee, 2016; Van Hooft & Crossley, 2008). These studies suggest that an individuals’ internal or external locus of control influence their job search behaviours differently. Internal locus of control is associated with an increased probability of finding (re)employment (Caliendo et al., 2015) and seeking out of more complex jobs with higher earnings (Cobb-Clark, 2015). Individuals with internal locus of control tend to set higher employment goals, are more optimistic, exert more effort in their job search and persevere when they encounter challenging situations (Caliendo et al., 2015). They also tend to believe that their job search effort will largely result in successful employment outcomes. Internal individuals are generally better at job search, have shorter unemployment duration spells after job loss and often tend to create self-employment (Caliendo et al., 2015; Cobb-Clark, 2015). In contrast to internal individuals, individuals with external locus of control usually avoid uncertain and challenging situations where they might be unable to cope (Caliendo et al., 2015; Cobb-Clark, 2015) and are more likely to quit a job as compared to their internal counterparts (McGee & McGee, 2016).

A prior meta-analytic study found that there was a small but positive association between internality and job search intensity (Kanfer et al., 2001). Consistent with this review, recent
Studies have shown that individuals with an internal locus of control search more intensively and they send more applications than external individuals (Caliendo et al., 2015; McGee, 2013; McGee & McGee, 2016). Internal individuals were also shown to have a 13% higher probability of finding jobs as compared to their counterparts. They were 57% more optimistic about finding and taking up a job in the next 6 months compared to external individuals who reported 42% optimism. This study also showed that an increase in internality by one standard deviation was associated with an increase of over 19% in hours spent searching for a job (McGee, 2013). Although differences were observed regarding job search behaviour, internal individuals were not better in converting the increase in job search intensity into job offers compared to external individuals, regardless of job search activities (McGee, 2013). Caliendo et al. (2015) found internal individuals to have a 13% higher monthly probability of finding jobs as compared to their counterparts. These studies did not show any gender differences (McGee, 2013). Although these studies found a generally small but positive associations between locus of control and job search behaviour, these were generally not significant.

Notwithstanding these statistically non-significant and inconclusive results, these studies indicate an important association between internal locus of control and job search behaviours. Prior studies conducted in the 1980’s and 1990’s found generally weak or no relationship and were generally inconclusive about the relationship between locus of control and job search behaviour (Feather & O’Brien 1987; Friedrich, 1987; Saks & Ashforth, 1999).

Demographic factors and job searching

Literature on the association between demographic factors and job search intensity is sparse (Wanberg, Kanfer, Hamann & Zhang, 2016). A meta-analysis conducted by Kanfer et al. (2001) found that age had a negative relationship with job search intensity. Older job seekers had less job search behaviour compared to their younger counterparts (Kanfer et al., 2001; Manroop & Richardson, 2015) and took longer to find employment. Older individuals had lower intentions to engage in job search (r = -0.06), had significantly lower job search self-efficacy (r= -0.08) and had lower levels of job search intensity (r = -0.08) than younger individuals (Wanberg et al., 2016). These large negative correlation coefficients indicate an interesting (and expected) relationship between age and job search intensity. It indicates that the older the unemployed person is, the less likely their job search intensity (Zacher, 2013).
According to Zacher (2013) the relationship between age and job search intensity is influenced by occupational future time perspective (i.e., perceived amount of time remaining in the occupational context) which changes with chronological age. According to this conceptualization, younger job seekers tend to see their future time perspective as broad and expansive whereas, the older job seekers often see their future time perspective as limited. This concept is believed to influence job seekers’ job search intensity through reduction of job search activities.

Kanfer et al. (2001) found a positive relationship between gender, level of education and job search intensity. Male job seekers who had higher levels of education were found to engage in more job search activities than females with less education. Consistent with this finding, Manroop and Richardson (2015) found that females with lower levels of education were less likely to engage in active job search compared to males with higher levels of education. In a study comparing individuals who were eligible for unemployment insurance with ineligible individuals, Krueger and Mueller (2010) found that there was no significant relationship between demographic factors and job search intensity.

2.9 Conclusion

This chapter presented an overview of job search and theories of job search. In particular, it presented studies on self-efficacy, locus of control and demographic factors as variables that influence job search effort and intensity. Although marginal variances were reported, studies indicate that there is a positive relationship between self-efficacy and job search behaviours (i.e., effort and intensity). Non-significant, weak, and positive associations were reported between locus of control and job search behaviour. Length of unemployment and age is negatively related to job search intensity. These results are important for the development of future interventions. It is important to note that the majority of these studies were conducted in countries outside of South Africa. There is a dearth of literature on studies that are specifically aimed at investigating the relationship between self-efficacy and locus of control in South Africa. It is for this reason that this study is deemed important.

2.10 Motivation for the study

The upward trend in unemployment in the world fuelled by the 2008 global recession, has led to an increase in the interest in the construct job search behaviour (Manroop & Richardson,
2015). Although studies have been conducted in Western, Asian, and other developed countries on the role of psychological variables on job search behaviour, findings have been inconsistent and inconclusive (Liu, Wang et al., 2014). In South Africa, job search literature has focused mainly on experiences and consequences of unemployment (De Witte, Rothmann & Jackson, 2012; Saks, Zikic & Koen, 2015; Wanberg, Basbug, Van Hooft & Samtami, 2012) and less on the influence of psychological variables such as self-efficacy and locus of control. Studies in other countries have included self-efficacy and locus of control in models of job search behaviour (Bao & Luo, 2015; Caliendo, Cobb-Clark & Uhlendorff, 2015; McGee & McGee, 2016; Kanfer et al., 2001; Yeo & Neal, 2013). However, there is a dearth of literature on the antecedents of job search behaviour in South Africa. Studies aimed at determining factors that influence job search behaviour are therefore required to guide employment counselling and job search interventions.

2.11 Purpose of the study

The purpose of the current study was to determine whether self-efficacy and locus of control predicted job search behaviour as well as the effects of demographic variables on the relationship between self-efficacy, locus of control and job search behaviour. The study targeted a population of unemployed job seekers who were enrolled in workshops in Pretoria and Durban. The latter was based on the assumption that participants who are actively looking for jobs by enrolling and taking part in workshops are probably more self-efficacious than other more passive job seekers. The study will contribute knowledge to job search literature from a sample of job seekers actively involved in the job search process.

2.12 Research questions

The study was guided by the following questions:

(i) Does self-efficacy and locus of control predict job search effort and job search intensity?

(ii) If the possible effect of age, gender, education, and length of unemployment is controlled for, do these variables still able to predict job search effort and job search intensity?

2.13 Study hypotheses

The following hypotheses guided this study:
Hypothesis 1: Locus of control predicts job search effort and job search intensity.

Hypothesis 2: Self-efficacy predicts job search effort and job search intensity.

Hypothesis 3: When the effect of age, gender, education, and length of unemployment is controlled for, locus of control and self-efficacy predict job search effort and job search intensity.

Null hypothesis
Locus of control and self-efficacy does not predict job search effort and job search intensity even when the effect of age, gender, education, and length of unemployment is control for.
CHAPTER THREE: METHODOLOGY

3.1. Introduction

This chapter presents an overview of the research methodology used in this study. It outlines the research design, sampling of study participants, research instrument, data collection and analysis.

3.2. Research design

Research design refers to the strategic framework of scientific enquiry where the researcher specifies how to bridge the gap between specified research questions and the best way to implement the research. It is often regarded as a blueprint (Durrheim, 1999). Research design is a plan that specifies how the intended research will be conducted. Therefore it is important to carefully think about the adequacy of the research design since each design has its own advantages and disadvantages (Babbie, Mouton, Vorster & Prozesky, 2011; Durrheim, 1999).

A quantitative cross-sectional design was adopted in this study to address the research questions and objectives. A cross-sectional design allows researchers to study a phenomenon of interest by selecting a cross-section of the phenomenon at one specific time (Babbie et al., 2011). While cross-sectional designs attempt to understand phenomena, an inherent problem with them is that their conclusions cannot be generalized to other times or instances of that phenomena, because that phenomena are sampled from a specific cross-section (Babbie et al., 2011). The advantage of a cross-sectional study design however, is that it allows for data collection from participants with different backgrounds at one time, thus reducing the time and resource constraints.

In this study, self-efficacy, locus of control, length of unemployment, education level, age and gender were the independent variables in this study. Job search effort and job search intensity were dependent variables.

3.3. Research setting

According to Statistics South Africa (2017), an unemployment rate of 27.75% was observed in 1st quarter of. The Western Cape province had the lowest unemployment rate (23%) while other provinces ranged from 33.3% to 41.2%. Black African and Coloured population groups
with matric (Grade 12 and below) are the most affected by unemployment. Generally, more women than men are unemployed. In South Africa, some individuals seek the assistance of organizations such as the SAGDA for assistance in finding employment while others do not. In particular, SAGDA has a database of unemployed job seekers who have completed various levels of education. The organization supports the unemployed through employment counselling, training, and development, work integrated learning and internship placement, making the unemployed populations distinct.

**Study population**

The study population comprised of unemployed individuals registered with SAGDA, a non-governmental organization. This organisation has its head office in Johannesburg but has working relationships with other organizations in other provinces. SAGDA supports, specifically, unemployed graduates and interns placed in various companies and government departments through graduate development and training programmes. These programmes focus on topics such as self-worth, motivation, attitude and other technical skills such as dress code and behave professionally in a work environment. Participants in the training programmes are selected based on the availability and funding. Predominantly, Black Africans are registered with SAGDA. Even though the organisation’ website describes graduates as their target, members registered in the database comprised of individuals with various levels of education, including individuals who have not completed any post-matric education. Given the challenge of unemployment and the associated need for support during job search, one would expect that the organisation will not be dismissive to individuals who do not meet the specified membership criteria.

**3.4. Study sample**

Newman (2006) defines sampling as a procedure used to make decisions about which people, settings, contexts, and social processes will be included in the study. Generally, probability and non-probability sampling techniques exist in research methods literature (Babbie et al., 2011; Terre Blanche & Durrheim, 2006). In this study, a non-probability convenience and purposive sampling technique was used to select the study participants. This type of sampling, nonprobability sampling refers to a sampling procedure where study elements are not selected based on the principles of random selection. It is a technique that allows the selection of participants who are available at the time of the study and are willing to
participate in the study (Terre Blanche and Durrheim (2006). Convenient sampling strategy was used because it was easy and less expensive to access participants. Ideally, systematic sampling strategy would have ensured that every unemployed graduate had equal opportunity of participating in this study, thus increasing the generalisability of the results. However, this was not possible given the limited resources.

The sample comprised of individuals who were attending workshops in Durban and Pretoria arranged by the SAGDA. Besides the identified need identified among members on the database, SAGDA does not have any other specific criteria for the selection of workshop participants. Any registered member who was available on the day of the workshop is welcome to attend workshops. All of the job seekers present during the workshops were invited to participate in the study.

The study sample comprised mainly of Black Africans who were predominantly new entrants to the job market as they had completed their education within a 3-year period. A total of 154 unemployed job seekers participated in the study. Of these, 129 were between 20-29 years old while 22 were between 30-39 years old; 79 were females and 72 were males. One hundred and fifty were Black African and one coloured person. One may argue that workshop participants, and by extension this study sample, were similar in that they all had a specific reason; to develop their job search skills. They were assumed to be different to unemployed individuals who are not attending workshops because registering in the database and attending workshops indicate that they were actively involved in changing the situation of unemployment.

3.5. **Research instruments/measures**

A self-administered questionnaire (appendix A) was used to collect data. The questionnaire was easy to understand and suitable for participants with various levels of education to complete. The researcher distributed and collected questionnaires and was available to answer questions. The questionnaire consisted of sub-sections measuring different aspects of the study. The sub-sections were as follows.
Section A: Demographic information

This section comprised of demographic information including age, gender, marital status, race, highest level of education completed, year of completion of studies, field of study and period of time unemployed since completing highest level of education.

Section B: Rotter’s Internal-External Locus of Control (LOC) Scale.

This scale was developed by Rotter (1966) and largely based on social learning theory. The scale has 6 unscored filler items. The scale requires a person to choose between two opposing statements, each representing either an internal or external interpretation of events and situations (April et al., 2012; Stocks, April & Lynton, 2012). Rotter’s locus of control scale is binary and designed to measure a person’s interpretation across domains. This scale has been used extensively in research and validated in many cross-cultural environments (April et al., 2012; Lefcourt, 2014; Stocks, April & Lynton, 2012). In the current study, the scale was reverse scored with high scores reflecting internal locus of control. It has been shown to have good reliability coefficients of 0.70 and above in South Africa (Scheepers, 2005).

Section C: General Self-Efficacy (GSE) Scale.

This scale was used to measure general self-efficacy beliefs. The scale was developed to measure a person’s general beliefs in his/her ability to react successfully to difficult and challenging situations (Keyes, Wissing, Potgieter, Temane, Kruger & van Rooy, 2008). Respondents were required to read the statement and then decide how much it describes them by choosing among four response categories. Studies have reported a moderate to high internal consistency of the general self-efficacy (i.e., 0.76 to 0.89) (Chen et al., 2001; Weber, Ruch, Littman-Ovadia, Lavy & Fai, 2013). A South African study reported a consistency of 0.66 (Keyes et al., 2008).

Section D: Job Search method (JSM)

This is a 10-item binary scale that taps into the various methods (e.g., asked family and friends, read newspaper advertisements, posted your CV on a job search engine) used by participants to search for job openings using the past four weeks as a reference period. Six of the scale items measure preparatory activities while the remaining items measure active job search behaviour. This breakdown is in line with the two-dimensional measure of job search behaviour proposed by Blau (1994).
Section E: Job Search Intensity or Frequency of Job Searching method (FJSM)

A 10-item scale was used that measures how frequently job seekers searched for jobs in the past four weeks. The scale was adapted from the Job Searching Behaviour Index (Kopelman, Rovenpor & Millsap, 1992). This is a Likert-type scale (like Lim et al., 2016) that requires respondents to indicate the frequency of their job search ranging from never (0 times) to very frequently (at least 10 times). The scores are added to produce a combined score of overall job search intensity. Adequate reliability and validity estimates ranging from .80 to .89 have been reported (Blau, 1994; Bretz, Boudreau & Judge, 1993; Lim et al., 2016; Vansteenkiste, Lens, De Witte & Feather, 2005).

3.6. Data collection and procedures

Permission to conduct the study was sought from SAGDA during their pre-arranged workshops in Pretoria and Durban. Ethics approval was granted by the Human Research Ethics Committee of the University of the Witwatersrand (protocol number 03-11-06). Further ethical procedures that were followed are described in section 3.8 below. Once permission was obtained, the researcher contacted the workshop facilitators to arrange convenient time slots for data collection. This enabled a smooth and effective data collection process. On the day of the workshop, the researcher introduced the purpose of the study at the beginning of the workshop when introductions and the program were presented. Individuals who were interested in participating in the study were asked to speak to the researcher during breaks where the study was further discussed with each individual. Informed consent documents were then signed by each person once they had indicated willingness to participate in the study. Self-administered questionnaires were given to participants to complete during the lunch break and return to a box located outside the workshop venue. The researcher was available to assist participants. Although the questionnaire was primarily in English, participants did not report any difficulties in understanding the questions. At the end of the workshop, the researcher collected the questionnaires from the box outside the workshop venue. This data collection procedure was convenient and economical.

3.7. Data analysis

Data was entered into an excel spreadsheet, cleaned, and exported into the Statistical Package for the Social Sciences (SPSS) for further analysis. Using SPSS 21, the preliminary analyses included descriptive statistics and the assessment of scale reliabilities. Zero-order correlations
were run to test for correlations between variables. Step-wise univariate regression analysis and multivariate regression analysis using a general linear model was performed. Finally, path analysis was performed using MPlus 7.2 (Muthén & Muthén, 2012).

3.8. Ethical considerations

This study was conducted as a requirement for a Master’s Degree in Research Psychology at the University of the Witwatersrand. Ethics approval was originally issued by the Human Research Ethics Committee of the university (Appendix B). However, as the study was halted and data lay dormant, further ethics approval was requested and granted by the Humanities and Social Sciences Research Ethics Committee (HSSREC) at the University of KwaZulu Natal (UKZN) when the study was transferred to UKZN (protocol reference number: HSS/1564/016M – Appendix C).

All the participants were verbally informed about the purpose of the study, what was expected from them and duration of the study. They were also given an information sheet (Appendix D) for further information. They were informed that the study was voluntary and confidentiality was guaranteed. Participants were encouraged to ask any questions about the study. They were assured that they can withdraw from the study at any time if they wished to do so without any consequences. Participants who indicated willingness to participate signed an informed consent document (Appendix E). The informed consent document was read to each participant in their preferred language. No participant identifiers were required in the questionnaire and they were informed that a composite report would be prepared without any identification of participants, thus ensuring confidentiality.

3.9. Conclusion

This chapter provided an overview of the research methods used in this study. The methods used enabled the researcher to answer the research question and meet the objectives of the study. The chapter also presented the research design, sampling, data collection and analysis and a description of ethical issues considered in the study.
CHAPTER FOUR: RESULTS

4.1. Introduction

This chapter presents the results where descriptive statistical analysis, zero-order correlations, step-wise univariate regression, and general linear model (multiple regression) using SPSS 21 were performed. Path analysis using MPlus 7.2 was used to test the model fit.

4.2. Characteristics of study participants

The sample consisted almost entirely of 20-29-year-old, single, Black Africans. The sample was 53% female. Level of education ranged from those who had not matriculated to honours level qualification.

![Level of Education](image)

Figure 1: Level of education

Figure 1 shows that 49% of the sample had grade 12 as the highest qualification, and 11.9% did not complete high school (i.e., had grade 11 and below). The most frequently reported year of completion was 2005. The majority of the participants had specialised in business, commerce, and management qualifications. Most of the sample had studied at Vocational Education and Training (TVET) (formerly Technical Colleges) institutions. Only 1.3% of the sample had qualifications from traditional Universities.
As seen in figure 2, the period of unemployment among the sample varied. Among those who provided their duration of unemployment, the majority of the sample (53.6%) had been unemployed for more than a year. One year and above was the most frequent length of time of unemployment.

Table 1: Duration of unemployment by gender

<table>
<thead>
<tr>
<th>Gender</th>
<th>1 year and above</th>
<th>7 to 11 months</th>
<th>Less than 6 months</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>40</td>
<td>13</td>
<td>16</td>
<td>69</td>
</tr>
<tr>
<td>Female</td>
<td>41</td>
<td>7</td>
<td>29</td>
<td>77</td>
</tr>
</tbody>
</table>

Table 1 reflects an equal distribution of length of unemployment for both males and females. A chi-square test was performed and there was no observed relationship between gender and length of unemployment, $X^2(3, N=151) = 5.45, p = .14$. 

Figure 2: Length of unemployment
Figure 3: Job searching method used

Figure 3 shows the job search methods used by study participants. In terms of preparatory job search behaviours, most participants read newspapers advertisements, followed by asking family and friends and enquiring at workplaces. Actual job search behaviours used, were responding to advertisements, followed by posting their curriculum vitae on websites.

4.3. Scale descriptives and reliability

Reliabilities of the four scales used in the current study were assessed. The locus of control scale was reliable (Cronbach’s $\alpha = .98$, ICC=.63, p<.001). The general self-efficacy (GSE) scale was moderately reliable (Cronbach’s $\alpha = .66$, ICC=.18, p<.001) after removing item GSE2, which did not significantly contribute to the scale. The job search Method (JSM) scale was computed as the sum of the methods used by each participant. The scale was moderately reliable (Cronbach’s $\alpha = .55$, ICC=.15, p<.001), after removing JSM1, JSM4, and JSM7, which did not significantly contribute to the scale. The search intensity scale (FJSM) had high reliability (Cronbach’s $\alpha = .80$, ICC=.28, p<.001).
Average locus of control score was 0.58 (SD=.15) with zero as the lowest possible score and 23 as the highest possible score. The average general self-efficacy was 2.25 (SD=.48); and the range was 10 to 40 points. The average number of job search methods used was 5 (SD=1.83) with a range of zero to 10. The average intensity of job search (FJSM) was 1.98 (SD=.90). The lowest possible score on the job search intensity scale is zero and the highest possible score is 50. The means of the scales used in the current study are based on adjusted scales, i.e., after unreliable items were removed from the scales.

4.4. Association between self-efficacy, locus of control and job search behaviour

The Pearson’s correlation coefficient and p-statistic was obtained for all the possible relationships between the variables of interest using SPSS 21. No correlations were significant at the p<.05 level except for the moderate association between search method diversity and search effort and intensity (r=.64, p<.001; see Table 3 below).
Table 2: Correlations between variables of interest

<table>
<thead>
<tr>
<th>Variable</th>
<th>LOC</th>
<th>GSE</th>
<th>JSM</th>
<th>FJSM</th>
</tr>
</thead>
<tbody>
<tr>
<td>LOC</td>
<td>1</td>
<td>.105</td>
<td>-.063</td>
<td>-.004</td>
</tr>
<tr>
<td>GSE</td>
<td>.105</td>
<td>1</td>
<td>.016</td>
<td>.015</td>
</tr>
<tr>
<td>JSM</td>
<td>-.063</td>
<td>.016</td>
<td>1</td>
<td>.637**</td>
</tr>
<tr>
<td>FJSM</td>
<td>-.004</td>
<td>.015</td>
<td>.637**</td>
<td>1</td>
</tr>
</tbody>
</table>

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

4.5. Effects of self-efficacy and locus of control on job search effort and intensity

Univariate step-wise regressions were conducted to assess the effects of the two independent variables (IV’s), i.e., locus of control and general self-efficacy, on the two dependent variables (DV’s) job search effort and job search intensity (Appendix F and G, respectively). As covariates, the first block of variables consisted of: length of time unemployed, field of study, gender, age, highest level of education, and year of completion. The second block of predictors consisted of locus of control and general self-efficacy. Neither block produced a significant R squared change; and neither independent variable was a significant predictor for either of dependent variables.
A multivariate model was constructed to assess the effects of self-efficacy and locus of control simultaneously as well as independently, and to account for any interaction between general self-efficacy and locus of control. Due to the skewness and lack of variance in the demographics, specifically for race, field of study, age, and highest level of education, these were removed from the analysis, and length of time unemployed, gender, and year of completion, which had more variance were left as covariates in the model. Results showed that no variable was a significant predictor of the overall model or of either dependent variable separately (Appendix H).

4.6. Covariance between self-efficacy and locus of control

A path analysis with bootstrapped samples (5000 iterations) was conducted in MPlus 7.2 to account for the small sample size and to explore indirect effects and account for IV covariance. The models fitted well; \( \chi^2(4) = 3.135, p=0.54, \) RMSEA<.001, p-close=.69, CFI=1.00, TLI=1.03). However, results indicated no association, direct or indirect, between the IV’s and DV’s (see Appendix H). However, the two DV’s were significantly associated with each other (\( \beta=.59, p<.001 \)).

4.7. Conclusion

In summary, the sample of this study comprised of mostly 20-29-year-old single Africans who have matric/grade 12 as the highest level of education. Most of them had been unemployed for more than a year and they used “read newspapers adverts” and “responded to newspaper adverts” as job search methods. The scales used in the study had Cronbach alpha’s ranging from .55 to .98. Correlation among variables was non-significant. The independent variables did not significantly predict job search behaviour; failing to reject the null hypothesis.
CHAPTER FIVE: DISCUSSION

There is a dearth of literature on the predictors of job search in the context of South Africa, therefore, the aim of this current study was to determine the predictive value of self-efficacy and locus of control on job search behaviour and thus contribute to the job search literature with findings from a South African sample. The study sample comprised mainly of unemployed job seekers who were actively involved in the job seeking process. These individuals were attending job search skills development workshops in two major South African cities- Durban and Pretoria. Generally, the majority of participants were young Black Africans who had completed matric and had been unemployed for more than a year. Although this study sample was not representative of unemployed individuals and the fact that it was limited by the geographical location and how workshop participants were recruited, it does provide limited support to findings from Statistics South Africa (2017) which shows that unemployment in South Africa disproportionately affects young Black Africans with lower levels of education.

The results show that traditional job search methods such as reading and responding to newspaper adverts, enquiring at workplaces and asking friends and family about job openings were still popular methods among the study sample. Consistent with prior studies (Kuhn & Skuterud, 2000), using traditional job search methods remained prominent. Although Kuhn and Skuterud (2000) reported that internet job search – a non-traditional job search method – was associated with longer unemployment during the period 1998/2000, Kuhn and Mansour (2011) found that internet job search method was associated with a 25% reduction in unemployment durations in the United States of America. However, it must be noted that job search methods scale used in this study included a restricted range of job search methods that job seekers could possibly use. The scale included predominantly traditional methods which are arguably associated with lower education levels and socio-economic backgrounds.

Overall, correlational and regression analysis between independent variables and dependent variables produced non-significant results. Based on the results of this study, we fail to reject the null hypothesis. The study findings also show that there was no correlation between self-efficacy and job search behaviour. The results also did not show the effect of self-efficacy on
job search behaviour. This is inconsistent with prior studies which found self-efficacy to be one of the best predictors of job search behaviour (Bao & Luo, 2015; Boswell et al., 2012; Kanfer et al. 2001; Schaffer & Taylor, 2012). This finding could be due to use of general self-efficacy scale instead of job search self-efficacy scale which is domain specific. Bandura (2012) cautioned against the use of general measures of self-efficacy because such measures conceptualize and operationalize self-efficacy as a general personality trait when in fact it is domain specific. As discussed under the measurement of self-efficacy, job search behaviour was regarded as a task that comprises of multiple tasks categorised as preparatory and active job search behaviours. Each of these tasks requires self-regulation and attention. Furthermore, although the job search self-efficacy scale has been used frequently in job search research, there has been little consensus and consistency on how to measure job search self-efficacy. Different job search self-efficacy scales have been used varying from single item measures to ten items measures. This has been a major problem in terms of reliability. The nature of items in the different job search efficacy scales, with some items measuring knowledge of job search, confidence in performing job search activities and behaviours while others measure confidence in one’s job search abilities and confidence in obtaining job search outcomes (Saks et al., 2015). It is for these reasons that a generalised measure of self-efficacy was opted for in this study. However, looking at the results, there is a possibility of finding different results using job search self-efficacy scale.

It is also possible that the relationship between self-efficacy and job search behaviour was affected by length of unemployment. As shown above, most participants had been unemployed for over a year and as highlighted by Faberman and Kudlyak (2016), job search behaviour decrease as the period of unemployment increases over time.

In line with the conceptualisation of locus of control proposed by Rotter (1966), it was hypothesised that one’s internal locus of control would predict job search behaviour. In this study, an average of 0.58 in locus of control indicated that participants had external locus of control. However, the results show that there was no significant relationship between locus of control and job search behaviour. Consistent with Caliendo et al. (2015); Kanfer et al., (2001), McGee (2013), Feather & O’Brien (1987) and Saks & Ashforth (1999), the results of this study did not show the effect of locus of control in predicting job search behaviour.
In order to test for the indirect effects of self-efficacy and locus of control, path analysis was used. The analysis yielded non-significant results, indicating that no evidence of collinearity existed between self-efficacy and locus of control. Schaffer and Taylor (2012) showed that other variables such as positive coping consistently mediated the relationship between self-efficacy and job search behaviour. It is possible that variables such as social support, financial support and need, may mediate the relationship between the variables of interest. Perhaps the current study findings on the role self-efficacy were influenced by a theoretically narrow model; hence the results were not significant.

Labour market demands may be at play in how self-efficacy and locus of control influence job search behaviour. According to Lim et al. (2016) job search behaviour is not only influenced by personality factors but it is also affected by non-agentic factors and macro-level boundary conditions such as economic and labour market conditions (Lim et al., 2016). For example, because South Africa has a high unemployment rate, there is generally more competition for the limited number of jobs. Not only do unemployed job seekers compete for the few available jobs, but they also compete with employed job seekers. In such situations, the role of demographic and psychological factors (such as self-efficacy and perceived control beliefs) would not be sufficient to predict job search behaviour. One finds that job seekers with higher levels of education may at times compete for lower level menial jobs, due to the rate of unemployment. Perhaps this indicates the role of market demands in job search behaviour. According to Van Hooft et al., (2012), it is generally when the labour market demand is high that such factors play an important role in job search behaviour.

As shown in the literature review, the role of demographic factors on job search behaviour is inconclusive and generally sparse. The current study did not find any significant relationship between age, gender, and level of education. However, the characteristics of the sample, where and how workshop participants were selected as well as the sample size affected the power, in general and the ability to test for the role of demographic variables. Therefore, the results found are not. Perhaps the two independent variables and demographic factors may influence job search behaviour at a more global/national level, where there is more variation in the sample.
CHAPTER 6: LIMITATIONS, RECOMMENDATIONS, AND CONCLUSION

6.1. Introduction

This section discusses the conclusions drawn from the findings from the current study and the limitations of the study. Recommendations for future research are highlighted.

6.2. Limitations

A number of limitations in the current study are worth noting. Firstly, the small, convenient sample size is a major limitation. Perhaps a bigger sample size with bigger variance in the independent variables would have reduced chances of a type 2 error occurring. Further, the fact that the study participants were drawn from a pre-arranged workshop introduced a bias. Information about where and how workshop participants were selected was unknown. However, the study is distinct in that it constituted of individuals who were actively engaged in the job search process who can be regarded to be similar.

Secondly, the results may be affected by the use of unreliable or unsuitable measures. A general self-efficacy scale was used in this study despite Bandura’s (2012) caution against the use of general measures of self-efficacy; arguing that self-efficacy beliefs should not be treated as a general trait because people differ in their self-efficacy both across and within an activity domain. Therefore, global measures of self-efficacy should be avoided since the use of such measures do not only have problems with predictiveness but are also seriously confounded. This led to the development of specific measures of self-efficacy such as academic self-efficacy (Sagone & De Caroli, 2014). However, inconsistency and lack of consensus in using job search self-efficacy (Saks et al., 2015) must be taken into consideration.

Additionally, locus of control was measured using Rotter’s internal-external locus of control scale. Critiques have highlighted the nature of scale items as problematic in that they do not discourage respondents from providing socially desirable answers since the forced choice format potentially holds equal social desirability. It is argued that filler items in the original internal-external locus of control scale prevented the empirical test of the bipolarity
assumption built into the scale (Halpet & Hill, 2011; Üzümçeker, 2016). Likert type scales which enable respondents to rate how well each statement applies to their own thinking about the relationship between action and outcomes are proposed (Halpert & Hill, 2011).

6.3. Recommendations

If future studies pursue this line of research, a wider sample range in race, age, field of study, highest level of education and duration of unemployment is recommended. Otherwise hypotheses should be restricted to narrower populations who are briefly unemployed.

A scale for locus of control with a range of response categories, rather than binary (yes/no) scale is also recommended in order to improve the variance in the test. The use of the job search efficacy scale is also recommended. Domain specific scales increase the predictiveness of the construct and are less confounded (Bandura, 2012).

If there is separate interest in the construct/variable, a follow-up analysis of the reliability of the job search methods scale is recommended, as it does not seem to be unidimensional. Three items did not contribute to the rest of the scale; therefore, it may be of interest to conduct an exploratory factor analysis assessing the dimensionality, invariance, and structure of the scale in the South African context, or selecting another scale for the purpose.

Lastly, as recommended by Manroop & Richardson (2015), future research should investigate how different demographic groups, particularly in South Africa, approach job search. Such a study should also identify both the relational and situational conditions that influence job seeker’s expectations and subsequent behaviour because as note above, labour market conditions present a situational conditions that potentially influence individuals’ job search expectations and behaviour.

6.4. Conclusion

The current study aimed at determining the predictive value of self-efficacy and locus of control on job search behaviour in a sample of active unemployed job seekers. Gender was equal distributed and a large proportion had been unemployed for over a year. Overall, the current study did not find any significant relationships between the variables of interest in this specific sample. However, these results should be interpreted with caution, given the number
of limitations relating to sample size, sampling bias and the use of unreliable and unsuitable measures.
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Appendix A: Questionnaire

SECTION A

BIOGRAPHIC DETAILS

Please tick the box that applies to you.

Age: 18-29  □  30-39  □  40-49  □  50 and above □
Gender: Male □ Female □

Marital status: Single □ Married □ Widowed □ Living with partner □

Race: African □ Coloured □ Indian □ White □

Highest Level of education completed
Grade 12 □ National Diploma □ Bachelor Degree □
B.Tech □ Honours □ Masters □
PhD □

Higher Education institution attended (if any, please specify)

Field of study:
□ Manufacturing, engineering and technology
□ Health Sciences and Social Services
□ Business studies, commerce and management
□ Physical, mathematical, life and computer sciences
□ Education and training, human and social studies, communication studies
□ Other, please specify

When did you complete your studies?
Year_____________
Time unemployed since completion of studies

☐ Less than 6 months
☐ 7 to 11 months
☐ 1 year and above

SECTION B

*Please read each statement and choose the statement that you feel applies to you by ticking (a) or (b)*

1. a) Children get into trouble because their parents punish them too much.
   b) The trouble with most children nowadays is that their parents are too easy with them

2. a) Many of unhappy things in people’s lives are partly due to bad luck.
   b) People’s misfortunes result from the mistakes they make.

3. a) One of the main reasons why we have wars is that people don’t take enough interest in politics.
   b) There will always be wars, no matter how hard people try to prevent them.

4. a) In the long run people get the respect they deserve in the world.
   b) Unfortunately, an individual’s worth often passes unrecognized no matter how hard they try.

5. a) The idea that teachers are unfair to students is nonsense.
   b) Most students don’t realize the extent to which their grades are influenced by accidental happenings.

6. a) Without the right breaks once cannot be an effective leader
   b) Capable people who fail to become leaders have not taken advantage of their opportunities.

7. a) No matter how you try some people just don’t like you.
   b) People who can’t get others to like them don’t understand how to get along with others.

8. a) Heredity plays the major role in determining one’s personality.
   b) It’s one experiences in life which determine what they’re like.

9. a) I have often found what is going to happen will happen.
   b) Trusting to fate has never turned out as well for me as making a decision to take a
definite course of action.

10. a) In the case of the well prepared student there is rarely, if ever, such thing as an unfair test.
    b) Most times exam questions tend to be so unrelated to course work that studying is really useless.

11. a) Becoming a success is a matter of hard work. Luck has little or nothing to do with it.
    b) Getting a job depends mainly on being in the right place at the right time.

12. a) The average citizen can have an influence in government decisions.
    b) The world is run by a few people in power, and there is not much the little guy can do about that.

13. a) When I make plans, I am almost certain that I can make them work.
    b) It is always wise to plan too far ahead because many things turn out to be a matter of good or bad fortune anyway.

14. a) There are certain people who are just no good.
    b) There is some good in everybody

15. a) In my case getting what I want has little or nothing to do with luck.
    b) Many times we might just as well decide what to do by flinging a coin.

16. a) Who gets to the boss depends on who was lucky enough to be in the right place.
    b) Getting people to do the right thing depends upon ability, and luck has little or nothing to do with it.

17. a) As far as the world affairs are concerned, most of us are the victims of forces we can neither understand nor control.
    b) By taking an active part in political and social affairs, the people can control world events.

18. a) Most people don’t realize the extent to which their lives are controlled by accidental happenings
    b) There is really no such thing as “luck”.

19. a) One should always be willing to admit mistakes.
    b) It is usually best to cover up one’s mistakes.

20. a) It is hard to know whether or not the person really likes you.
    b) How many friends you have depends upon how nice a person you are.

21. a) In the long run the bad things that happen to us are balanced by the good ones.
b) Most misfortunes are the result of lack of ability, ignorance, laziness or all three.

22. a) With enough effort we can wipe out political corruption.
   b) It is difficult for people to have much control over the things politicians do in office.

23. a) Sometimes I can’t understand how teachers arrive at the grades they give.
   b) There is a direct relationship between how hard I study and the grades I get.

24. a) A good leader expects people to decide for themselves what they should do.
   b) A good leader makes it clear to everybody what their jobs are.

25. a) Many times I feel that I have little influence over the things that happen to me.
   b) I do not believe that chance or luck plays an important role in my life.

26. a) People are lonely because they don’t try to be friendly.
   b) There is not much use in trying too hard to please people, if they like you they like you.

27. a) There is too much emphasis on athletics in high school.
   b) Team sports are an excellent way to build character.

28. a) What happens to me is my own doing.
   b) Sometimes I feel that I don’t have enough control over the direction my life is taking.

29. a) Most of the time I can’t understand why politicians behave the way they do.
   b) In the long run the people are responsible for bad government on a national as well as local level.

SECTION C

Please read the following statements and put a cross in the box that applies to you.

<table>
<thead>
<tr>
<th>I can always manage to solve difficult problems if I try enough</th>
<th>Not at all true</th>
<th>Hardly true</th>
<th>Moderately true</th>
<th>Exactly true</th>
</tr>
</thead>
<tbody>
<tr>
<td>If someone opposes me, I can find the means and ways to get what I want</td>
<td>Not at all true</td>
<td>Hardly true</td>
<td>Moderately true</td>
<td>Exactly true</td>
</tr>
<tr>
<td>It is easy for me to stick to my ideas and accomplish my goals</td>
<td>Not at all true</td>
<td>Hardly true</td>
<td>Moderately true</td>
<td>Exactly true</td>
</tr>
<tr>
<td>I am confident that I could deal efficiently with unexpected events</td>
<td>Not at all true</td>
<td>Hardly true</td>
<td>Moderately true</td>
<td>Exactly true</td>
</tr>
<tr>
<td>Thanks to my resourcefulness, I know how to handle unforeseen situations</td>
<td>Not at all true</td>
<td>Hardly true</td>
<td>Moderately true</td>
<td>Exactly true</td>
</tr>
<tr>
<td>I can solve most problems if I invest the</td>
<td>Not at all true</td>
<td>Hardly true</td>
<td>Moderately true</td>
<td>Exactly true</td>
</tr>
</tbody>
</table>
necessary effort | true | true | true
---|---|---|---
I can remain calm when facing difficulties because I can rely on my coping abilities | Not at all true | Hardly true | Moderately true | Exactly true
When I am confronted with a problem, I can usually find solutions | Not at all true | Hardly true | Moderately true | Exactly true
If I am in trouble, I can usually think of a solution | Not at all true | Hardly true | Moderately true | Exactly true
I can handle whatever comes my way | Not at all true | Hardly true | Moderately true | Exactly true

SECTION D

Please read the following and respond by ticking either YES or NO.

In the past four weeks, I used the following method to find a job:

1. Asked friend/family
   
2. Went to enquire at workplaces
   
3. Contacted private employment agencies
   
4. Read newspaper advertisements
   
5. Searched the internet for job postings
   
6. Contacted public placement services (e.g., the Department of Labour)
   
7. Placed an advert in a newspaper
   
8. Responded to job advertisements
   
9. Wrote to/called companies of interest
   
10. Posted CV on a job website

How frequently have you engaged in the following behaviours or use the following sources in your job search in the past four weeks? Please tick as follows

1. Asked friend/family | 1 2 3 4 5 6 7
Went to enquire at workplaces | 1 2 3 4 5 6 7
Contacted private employment agencies | 1 2 3 4 5 6 7
Read newspaper advertisements | 1 2 3 4 5 6 7
<table>
<thead>
<tr>
<th>Method</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Searched the internet for job postings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Contacted public placement services (e.g., the Department of Labour)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Placed an advert in a newspaper</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Responded to job advertisements</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wrote to/called companies of interest</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Posted CV on a job website</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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</table>
Appendix B: Letter acknowledgement from the University of the Witwatersrand

Human Research Ethics Committee (Non-Medical)

Research Office: Senate House Room SH 10004, 10th floor.
Tel No. 011 717 1408

06 September 2016

Mr X Xaba
UKZN

Dear Mr Xaba

HREC (non-medical) letter of acknowledgment

I wish to confirm that the following has been acknowledged and noted by the HREC (Non-Medical) Ethics Committee at the University of the Witwatersrand, Johannesburg:

1) Mr Xaba collected data with Wits HREC ethics approval (Protocol number 03-11-06) several years ago while registered for a Wits Masters degree.
2) For personal reasons Mr Xaba did not finish that degree nor analyse the data set.
3) He has now decided to use the data for a Masters degree at UKZN.
4) He has obtained written (.emailed) permission from the Wits Head of Psychology (Prof G Finchiescu) to use and analyse this data for a UKZN Masters degree.
5) We advised Mr Xaba, as a courtesy, to notify the HREC at Wits that the data collected under their approval is now to be used for a UKZN Masters degree.
6) The proposed UKZN Masters using the original data will also be submitted to a registered UKZN REC for review (or exemption) although no new data is being collected.

Please feel free to contact me should further information in this regard be required.

Yours Sincerely,

[Signature]

Lucille Mooragan
HREC Non-medical and Animal Ethics Committee Secretariat

E-Mail: Lucille.Mooragan@wits.ac.za
Appendix C: UKZN ethics approval

23 September 2016

Mr Xolani Xaba (942425744)
School of Applied Human Sciences – Psychology
Pietermaritzburg Campus

Dear Mr Xaba,

Protocol reference number: HSS/1164/016M
Project title: Self-efficacy, locus of control as predictors of job search behaviour among unemployed individuals who are searching for employment

Full Approval – No Risk / Exempt Application

In response to your application received on 21 September 2016, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted FULL APPROVAL.

Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.

PLEASE NOTE: Research data should be securely stored in the discipline/department for a period of 5 years.

The ethical clearance certificate is only valid for a period of 3 years from the date of issue. Thereafter Recertification must be applied for on an annual basis.

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully

Dr Shamila Naidoo (Deputy Chair)

/sms

Cc Supervisor: Professor Kevin Durheim
Cc Academic Leader Research: Dr Jean Steyn
Cc School Administrator: Ms Ayanda Khanyile
Appendix D: Information sheet
Hello, my name is Xolani Xaba. I am a student at the School of Psychology, University of the Witwatersrand. I am conducting a study on job seeking behaviour.

What we are doing
I am conducting a study so that I can understand how people who are not employed go about seeking employment.

Your participation
I am asking you to participate in the study by completing a questionnaire. This will take about 20 minutes of your time.

Your participation is voluntary and you are not being forced to take part in this study. The choice of whether to participate or not, is yours alone. If you choose not to take part in this study, you will not be affected in any way whatsoever.

If you agree to participate, I will ask you to sign an informed consent document. However, please note that you may stop participating in the study at any time, should you feel you no longer want to participate. If you do this, there will be no penalties and you will not be prejudiced or affected in any way.

Confidentiality
You are not required to write your name in the questionnaire. Therefore, it will not be known who completed the questionnaire. Consent forms will be stored separately from the questionnaires. They will be kept in a locked filing cabinet at the University.

Risks/discomforts
There are no anticipated risks of participation to the study. However, if by answering the questions you feel you need professional help, I have arranged with a Psychologist in the School of Psychology who will gladly assist you.

Benefits
There are no immediate benefits to you from participating in this study. However, this study will be helpful in providing knowledge which can be used to plan programs to assist people who are looking for employment.

**Who to contact if have any concerns**

This research has been approved by the Human Research Ethics Committee (HREC) of the University of Witwatersrand. If you have any complaints about ethical aspects of the research or feel that you have been harmed in any way by participating in this study, please contact the Chairperson of HREC on 011 717 1252/2700/1234/2656.
Appendix E: Informed consent

CONSENT

I hereby state that I have been informed about the study on job seeking behaviour. I understand that my participation is free and I am not forced in any way to participate.

I also understand that I can stop participating at any point should I not want to continue and that this decision will not in any way affect me negatively. I understand that this is a research project whose purpose is not necessarily to benefit me personally in the immediate or short term. I understand that my participation will remain confidential.

........................................

Signature of participant       Date:.........................

........................................

I understand that the information that I provide will be stored electronically and will be used for research purposes now or at a later stage.

........................................

Signature of participant       Date:.........................

Human Research Ethics Committee (Human) at the University of the Witwatersrand can be contacted on telephone (011) 717-1252/2700/1234/2656
Appendix F – Step-wise univariate regression on JSM – Full Results

Variables Entered/Removed* 

<table>
<thead>
<tr>
<th>Model</th>
<th>Variables Entered</th>
<th>Variables Removed</th>
<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Length of time unemployed, Marital Status, Highest level of education, Age, Gender, Field of study, Year of completion</td>
<td></td>
<td>Enter</td>
</tr>
<tr>
<td>2</td>
<td>GSEminusgse2, LOC</td>
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<td>Enter</td>
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</table>

a. Dependent Variable: JSM
b. All requested variables entered.

Model Summary

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<th>Adjusted R Square</th>
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<td>2.05565</td>
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</table>

a. Predictors: (Constant), Length of time unemployed, Marital Status, Highest level of education, Age, Gender, Field of study, Year of completion
b. Predictors: (Constant), Length of time unemployed, Marital Status, Highest level of education, Age, Gender, Field of study, Year of completion, GSEminusgse2, LOC

ANOVA*

<table>
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<th>Model</th>
<th>Sum of Squares</th>
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<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
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</tr>
<tr>
<td>Total</td>
<td>173.478</td>
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<tr>
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<td>Residual</td>
<td>152.125</td>
<td>36</td>
<td>4.226</td>
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<tr>
<td>Total</td>
<td>173.478</td>
<td>45</td>
<td></td>
<td></td>
<td></td>
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</tbody>
</table>

a. Dependent Variable: JSM
b. Predictors: (Constant), Length of time unemployed, Marital Status, Highest level of education, Age, Gender, Field of study, Year of completion
c. Predictors: (Constant), Length of time unemployed, Marital Status, Highest level of education, Age, Gender, Field of study, Year of completion, GSEminusgse2, LOC
### Coefficients

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
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<tbody>
<tr>
<td></td>
<td>B</td>
<td>Std. Error</td>
<td>Beta</td>
<td></td>
</tr>
<tr>
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<td>Field of study</td>
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<td>Year of completion</td>
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**Model:** 1

**Excluded Variables**

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**Model:** 2

**a.** Dependent Variable: JSM

**b.** Predictors in the Model: (Constant), Length of time unemployed, Marital Status, Highest level of education, Age, Gender, Field of study, Year of completion
Variables Entered/Removed*  

<table>
<thead>
<tr>
<th>Model</th>
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<th>Method</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Enter</td>
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<tr>
<td>2</td>
<td>GSEminusgse2, LOC</td>
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</table>

a. Dependent Variable: FJSM  
b. All requested variables entered.

Model Summary  

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<th></th>
<th></th>
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a. Predictors: (Constant), Length of time unemployed, Field of study, Gender, Age, Highest level of education, Year of completion  
b. Predictors: (Constant), Length of time unemployed, Field of study, Gender, Age, Highest level of education, Year of completion, GSEminusgse2, LOC

ANOVA*  

| Model | Sum of Squares | Df | Mean Square | F | Sig. | | |
|-------|----------------|----|-------------|---|------|| |
|       | Regression     | 4.102 | 6 | .684 | .886 | .515a |
| 1     | Residual       | 27.775 | 36 | .772 |    |    |
|       | Total          | 31.877 | 42 |    |    |    |
|       | Regression     | 4.261 | 8 | .533 | .656 | .726b |
| 2     | Residual       | 27.615 | 34 | .812 |    |    |
|       | Total          | 31.877 | 42 |    |    |    |

a. Dependent Variable: FJSM  
b. Predictors: (Constant), Length of time unemployed, Field of study, Gender, Age, Highest level of education, Year of completion  
c. Predictors: (Constant), Length of time unemployed, Field of study, Gender, Age, Highest level of education, Year of completion, GSEminusgse2, LOC

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### Coefficients\(^a\)

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\(^a\) Dependent Variable: FJSM

### Excluded Variables\(^a\)

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\(^a\) Dependent Variable: FJSM

\(^b\) Predictors in the Model: (Constant), Length of time unemployed, Field of study, Gender, Age, Highest level of education, Year of completion
### Appendix G – General linear model – Full Results

#### Multivariate Tests

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<tr>
<th>Effect</th>
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- **a.** Design: Intercept + Gender + Yearofcompletion + Lengthoftimeunemployed + LOC + GSEminusgse2 + LOC * GSEminusgse2
- **b.** Exact statistic
- **c.** The statistic is an upper bound on F that yields a lower bound on the significance level.
The table below shows the tests of between-subjects effects:

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<th>Mean Square</th>
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a. R Squared = .775 (Adjusted R Squared = -.186)
b. R Squared = .740 (Adjusted R Squared = -.369)
Appendix H – Path analysis – Full results

SUMMARY OF ANALYSIS

Number of groups 1
Number of observations 148

Number of dependent variables 4
Number of independent variables 2
Number of continuous latent variables 0

Observed dependent variables
Continuous
YEARS OF COMP LENGTH OF TIME JSM FJSM

Observed independent variables
LOC GSE

Estimator ML
Information matrix OBSERVED
Maximum number of iterations 1000
Convergence criterion 0.500D-04
Maximum number of steepest descent iterations 20
Maximum number of iterations for H1 2000
Convergence criterion for H1 0.100D-03
Number of bootstrap draws
Requested 5000
Completed 5000

Input data file(s)
C:/Users/FBZ/Desktop/xolanimplus.csv

Input data format FREE

SUMMARY OF DATA

Number of missing data patterns 6

COVARIANCE COVERAGE OF DATA
Minimum covariance coverage value 0.100

PROPORTION OF DATA PRESENT

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THE MODEL ESTIMATION TERMINATED NORMALLY

MODEL FIT INFORMATION

Number of Free Parameters 21

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Chi-Square Test of Model Fit

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RMSEA (Root Mean Square Error Of Approximation)

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CFI/TLI

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Chi-Square Test of Model Fit for the Baseline Model

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**Means**

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Residual Variances

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STANDARDIZED MODEL RESULTS

StdYX

Estimate

FJSM ON

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JSM ON

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FJSM WITH

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JSM WITH

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LOC WITH YEAROFCOMP 0.058
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