

**AN EVALUATION OF JOB CRAFTING AS AN  
INTERVENTION AIMED AT IMPROVING WORK  
ENGAGEMENT**

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A mini thesis submitted in partial fulfilment of the requirements for the degree of Magister  
Commercii in the Department of Industrial Psychology, Faculty of Economic and  
Management Sciences, University of the Western Cape.

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January 2018

## KEYWORDS

Employee engagement

JD-R theory

Job crafting

Job crafting intervention

Job demands

Job resources

Personal resources

Proactive behaviour

Quasi-experimental study

Work engagement



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## ABSTRACT

The construction industry plays a crucial role in the South African economy. In this high-risk industry, a lack of engagement by employees can have serious and costly health and safety consequences. Because construction companies work under conditions of tight deadlines and stringent requirements, executives and managers are often unable to reduce the demands on their employees. Hence, if employees are to increase their own levels of work engagement (and so improve health, promote safety, and guard against burnout), they need to exert personal agency by recrafting their own jobs.

The term *job crafting* refers to proactive employee behaviours that seek to optimise the work environment, frequently by addressing the balance between job demands and job resource. Previous literature suggests that employees who use job crafting behaviours show higher work engagement, lower disengagement, more positive emotions, and better adaptive performance.

The aim of this quasi-experimental study was to evaluate whether a job crafting intervention could improve the work engagement of individuals employed in the construction industry by changing the balance of job demands and resources (e.g., increasing opportunities for development and organisational support, decreasing work overload and job insecurity). One group of employees ( $n = 33$ ) participated in a 1-day job-crafting training session, after which they worked towards self-set crafting goals for a period of 4 weeks. They completed a biographical questionnaire, the Job Crafting Scale, the Job-Demands Resources Scale, and the Utrecht Work Engagement Scale before the training session, and then again at the end of the intervention period (i.e., approximately 6 weeks later). A comparison group ( $n = 22$ ) only completed the measures, at the same intervals.

Inferential statistical analyses, using repeated-measures ANOVA and independent-samples *t*-tests, detected significant effects of the intervention on job crafting behaviour, certain aspects of job resources and demands, and work engagement. Of primary importance, perhaps, was that at the post-intervention measurement point, participants exposed to the intervention showed significantly higher levels of work

engagement than those in the control group. Across the entire sample, changes in work engagement were correlated with changes in job crafting behaviours but were not, however, correlated with changes in job demands and resources.

Overall, the current findings sit comfortably and consistently alongside a relatively rich literature which suggests that employees who take a proactive role in crafting their job-related tasks and environments tend to take on psychologically fulfilling activities and will be more engaged in their work. Although further research is needed to describe the exact mechanisms by which job crafting interventions work, the kind of intervention used here seems to have the potential to enable employees to proactively build a motivating work environment and to improve their own job satisfaction.

**January 2018**



## DECLARATION

I declare that “An Evaluation of Job Crafting as an Intervention Aimed at Improving Work Engagement” is my own work, that it has not been submitted before for any degree or examination in any other university, and that all the sources I have used or quoted have been indicated and acknowledged as complete references.

Full name: Emmarentia Carol Thomas

Date: January 2018

Signed: \_\_\_\_\_



## ACKNOWLEDGEMENTS

I would like to express my gratitude to my supervisor Dr Marieta Du Plessis. I appreciate your patience, encouragement, wisdom and thoughtful feedback. Thank you for sharing your knowledge with me and for providing guidance while allowing me to experience the pains and the joys of this journey. It was certainly a humbling experience.

To my friend, brother and sidekick, Donavon April. You have always been in my corner and supported my goals. Thank you for the late nights, treats, laughs and for walking this academic journey with me. What would I have done without you? I will always have your back.

Thank you to Noel Whitehead and Bolton Footwear for all the support and for investing in my tertiary education, enabling me to achieve my personal and academic goals.

To the construction company who participated in my study, I appreciate your participation and support.

To my children, who have given me much happiness. Each one of you is deeply loved in a unique way. My daughters, Kirsten Hannah Pillay and Jenna Catherine Pillay, who has grown up watching me study and juggle with family and work. James Scott Thomas, my baby boy, who always tries to do everything to make his presence felt. Each one of you have contributed immeasurably to family enjoyment in a special way. I hope I have been a good mother and that I have not lost too much during the tenure of my studies.

Finally, to my husband and best friend, Kevin Thomas. I cannot thank you enough for your constant support, patience, reassurance and unselfish love. You were always around at times I thought that it is impossible to continue, you helped me to keep things in perspective. Your talent and passion in all that you do, your endless curiosity inspires me every day. You have been my anchor throughout this journey, thank you for all the sacrifices you made for our family to allow me to pursue my dreams. Thank you for being my partner in this and in all the adventures we still have to come. I could not have done this without you. I love you.

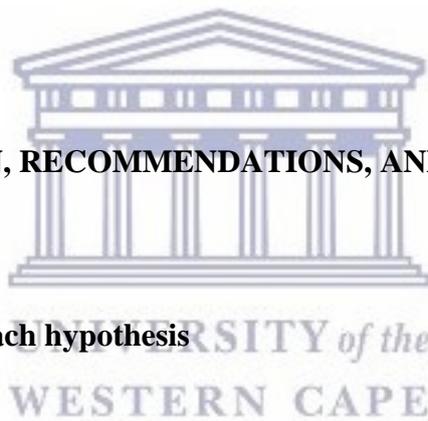
## TABLE OF CONTENTS

<b>Title Page</b>	<b>i</b>
<b>Keywords</b>	<b>ii</b>
<b>Abstract</b>	<b>iii</b>
<b>Declaration</b>	<b>v</b>
<b>Acknowledgement</b>	<b>vi</b>
<b>List of Tables</b>	<b>xi</b>
<b>List of Figures</b>	<b>xii</b>
<b>CHAPTER 1: INTRODUCTION</b>	<b>1</b>
<b>1.1 Introduction and Motivation for Study</b>	<b>1</b>
<b>1.2 Problem Statement</b>	<b>3</b>
<b>1.3 Research Aims and Questions</b>	<b>4</b>
<b>1.4 Definition of Key Terms</b>	<b>5</b>
<b>1.5 Outline of Chapters</b>	<b>6</b>
<b>CHAPTER 2: LITERATURE REVIEW</b>	<b>7</b>
<b>2.1 Introduction</b>	<b>7</b>
<b>2.2 Job Design: Historical overview</b>	<b>7</b>
<b>2.3 The Job Demands-Resources Model</b>	<b>10</b>
<b>2.4 Work Engagement</b>	<b>13</b>
<b>2.5 Job Crafting</b>	<b>15</b>
2.5.1 Job Crafting Interventions	18
2.5.2 Predictors of Job Crafting	21
2.5.3 Outcomes of Job Crafting	23

<b>2.6</b>	<b>Research Model and Hypotheses</b>	<b>24</b>
<b>2.7</b>	<b>Conclusion</b>	<b>27</b>
<b>CHAPTER 3: RESEARCH DESIGN AND METHODOLOGY</b>		<b>29</b>
<b>3.1</b>	<b>Introduction</b>	<b>29</b>
<b>3.2</b>	<b>Research Design</b>	<b>29</b>
<b>3.3</b>	<b>Population and Sample</b>	<b>30</b>
3.3.1	Population	30
3.3.2	Sample	30
3.3.4	Sample Characteristics	31
<b>3.4</b>	<b>Measurement Instruments</b>	<b>32</b>
3.4.1	Biographical questionnaire	32
3.4.2	The Utrecht Work Engagement Scale	32
3.4.3	Job Crafting Scale	34
3.4.4	Job Demands-Resources Scale	34
<b>3.5</b>	<b>Research Procedure</b>	<b>35</b>
3.5.1	Procedures for the intervention group	36
3.5.2	Procedures for the control group	38
<b>3.6</b>	<b>Data Management and Statistical Analysis</b>	<b>38</b>
<b>3.7</b>	<b>Ethical Considerations</b>	<b>39</b>
3.7.1	Consent and confidentiality	39
3.7.2	Risks and benefits	40
<b>3.8</b>	<b>Conclusion</b>	<b>40</b>
<b>CHAPTER 4: RESULTS</b>		<b>41</b>
<b>4.1</b>	<b>Introduction</b>	<b>41</b>
<b>4.2</b>	<b>Sample Sociodemographic Characteristics</b>	<b>41</b>



<b>4.3</b>	<b>Sample Employment Characteristics</b>	<b>43</b>
<b>4.4</b>	<b>Descriptive Statistics: UWES-17, JCS, and JDRS</b>	<b>47</b>
<b>4.5</b>	<b>Hypothesis Testing</b>	<b>47</b>
4.5.1	Hypothesis 1	47
4.5.2	Hypothesis 2	49
4.5.3	Hypothesis 3	50
4.5.4	Hypothesis 4	53
4.5.5	Hypothesis 5	53
4.5.6	Hypothesis 6	56
4.5.7	Hypothesis 7	58
4.5.8	Hypothesis 8	60
4.5.9	Hypothesis 9	62
<b>4.6</b>	<b>Conclusion</b>	<b>64</b>
<b>CHAPTER 5: DISCUSSION, RECOMMENDATIONS, AND CONCLUSION</b>		<b>65</b>
<b>5.1</b>	<b>Introduction</b>	<b>65</b>
<b>5.2</b>	<b>Overview: Status of each hypothesis</b>	<b>65</b>
5.2.1	Hypothesis 1	66
5.2.2	Hypothesis 2	67
5.2.3	Hypotheses 3-6	68
5.2.4	Hypothesis 7	70
5.2.5	Hypothesis 8	71
5.2.6	Hypothesis 9	72
<b>5.3</b>	<b>Overall Summary, Critical Reflections, and Future Research Directions</b>	<b>73</b>
<b>5.4</b>	<b>Limitations of the Study</b>	<b>75</b>
<b>5.5</b>	<b>Conclusion</b>	<b>77</b>
<b>6.</b>	<b>REFERENCES</b>	<b>79</b>



<b>7. APPENDIXES</b>	<b>90</b>
<b>Appendix A</b>	<b>90</b>
Biographical Questionnaire	90
<b>Appendix B</b>	<b>92</b>
The Utrecht Work Engagement Scale	92
<b>Appendix C</b>	<b>93</b>
The Job Crafting Scale	93
<b>Appendix D</b>	<b>94</b>
The Job Demands-Resources Scale	94
<b>Appendix E</b>	<b>96</b>
Informed Consent Documents	96
<b>Appendix F</b>	<b>100</b>
Job Crafting Intervention: Training workshop presentation	100



## LIST OF TABLES

Table 1.	Overview of the Current Job Crafting Intervention	37
Table 2.	Sample Sociodemographic Characteristics (N = 55)	42
Table 3.	Descriptive Statistics for the Study's Three Major Measures (N = 55)	47
Table 4.	Change in UWES-17 scores from pre- to post-intervention in the two groups (N = 55)	48
Table 5.	Change in JCS scores from pre- to post-intervention in the two groups (N = 55)	49
Table 6.	Change in three JDRS scores from pre- to post-intervention in the two groups (N = 55)	52
Table 7.	Change in two JDRS scores from pre- to post-intervention in the two groups (N = 55)	53
Table 8.	Correlation Matrix, Intervention Group: JCS subscales and three JDRS subscales (N = 33)	55
Table 9.	Correlation Matrix, Control Group: JCS subscales and three JDRS subscales (N = 22)	55
Table 10.	Correlation Matrix, Intervention Group: JCS subscales and two JDRS subscales (N = 33)	57
Table 11.	Correlation Matrix, Control Group: JCS subscales and two JDRS subscales (N = 22)	57
Table 12.	Correlation Matrix, Intervention Group: JCS and UWES-17 subscales (N = 33)	59
Table 13.	Correlation Matrix, Control Group: JCS and UWES-17 subscales (N = 22)	59
Table 14.	Correlation Matrix, Intervention Group: Three JDRS subscales and UWES-17 subscales (N = 33)	61
Table 15.	Correlation Matrix, Control Group: Three JDRS subscales and UWES-17 subscales (N = 22)	61
Table 16.	Correlation Matrix, Intervention Group: Two JDRS subscales and UWES-17 subscales (N = 33)	63
Table 17.	Correlation Matrix, Control Group: Two JDRS subscales and UWES-17 subscales (N = 22)	63

## LIST OF FIGURES

Figure 1.	The Job Demands-Resources model, original formulation.	10
Figure 2.	An updated version of the Job Demands-Resources model, incorporating a job crafting component.	12
Figure 3.	An administrative assistant's 'before sketch' (Part 1 of the Michigan Job Crafting Exercise).	20
Figure 4.	A three-session, six-step job crafting intervention design.	21
Figure 5.	Research model.	25
Figure 6.	Length of service (N = 55)	43
Figure 7.	Time in position (N = 55)	44
Figure 8.	Work Status: Intervention group and Control group	45
Figure 9.	Job classification: Intervention group and Control group	46



# Chapter 1: Introduction

## 1.1 Introduction and Motivation for Study

As contemporary organisations strive to adapt to the competitive needs of an ever-changing external work environment, employers increasingly expect their employees to be psychologically connected to their work (Breevaart, Bakker, Demerouti, and Hetland (2012). That is to say, organisations require employees to be *engaged*. An engaged employee is one who is dedicated and who identifies fully with his/her job requirements.

The importance of the work engagement concept, and factors that might affect it, have been of keen interest to both academics and practitioners in recent years (see, e.g., Bakker & Leiter, 2010). Current literature suggests that increased work engagement is related to important work outcomes such as reduced burnout (Maslach, Schaufeli, & Leiter, 2001), increased happiness (Field & Buitendach, 2011), better organizational commitment (Albdour & Altarawneh, 2014), decreased turnover intention (De Braine & Roodt, 2011), and increased job satisfaction (Barkhuizen & Rothmann, 2006). Furthermore, a highly engaged workforce can increase innovation, productivity, and bottom-line performance while reducing costs related to hiring and retention in highly competitive talent markets (Bhatnagar, 2007).

In terms of factors that might improve work engagement itself, industrial/organisational psychological research has, over the past several decades, developed a large literature examining the ways in which job characteristics and the work environment affect the degree to which employees engage with their jobs (Schaufeli & Bakker, 2004). In particular, empirical research has focused on the influence of *job demands* and *job resources* on work engagement, resulting in the formalisation of the Job Demands-Resources theoretical framework (Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004).

Numerous studies suggest that high job demands and low job resources (sometimes separately, but often in combination) have a negative effect on work engagement (Bakker & Demerouti, 2007; De Braine & Roodt, 2011; Karasek, 1979; Wrzesniewski & Dutton, 2001). Similarly, studies suggest that lower demands and higher resources (again, sometimes separately but often in combination) have a positive effect on work engagement (De Braine & Roodt, 2011; Rothmann & Jordaan, 2006). Of note here, however, is that a work environment characterised by few demands and excessive resources can lead to a lack of stimulation and, ultimately, employee disengagement via feelings of boredom, demotivation, and insecurity (Demerouti, Bakker, & Halbesleben, 2015).

Taken together, this evidence suggests that it is in the employer's best interests that an optimal balance be struck between job demands and job resources, so that work engagement is positively affected. To this end, several studies have described and evaluated various job redesign interventions. Most of those studies have focused on top-down approaches (i.e., approaches that emerge from a manager's [or other change agent's] redesign of the employee's job characteristics and work environment; Bakker & Leiter, 2010). Recently, however, alternative approaches to job redesign have been described and evaluated in the literature. These alternative approaches attempt to address an important criticism of top-down approaches: that they do not take into account the effects of a rapidly shifting job context that is highly sensitive to the effects of, for example, globalisation, technological advances, and macro-economic fluctuations (see, e.g., Demerouti & Bakker, 2014; Hornung, Rousseau, Glaser, Angerer, & Weigl, 2010). One specific form of these alternative approaches is job crafting.

The term *job crafting* refers to proactive employee behaviours that seek to optimise the work environment, frequently by addressing the balance between job demands and job resources (Demerouti, 2014). The key to this definition is the word 'proactive': Employees follow their own initiative, and act voluntarily, to affect their daily tasks, the scope of their assignments, and the characteristics of their work environment in such a way that the balance of job demands and job resources is shifted toward greater workplace engagement, satisfaction, and

feelings of efficacy and purpose (Lyons, 2008; Tims, Bakker, & Derks, 2012; Wrzesniewski & Dutton, 2001).

A small group of recently published studies (e.g., Brenninkmeijer & Hekkert-Koning, 2015; Petrou, Demerouti, Peeters, Schaufeli, & Hetland, 2012; Tims, Bakker, & Derks, 2014) suggest that job crafting has positive effects on work engagement (manifested by, for instance, reduced burnout and increased job satisfaction and employee wellbeing). However, most of those studies used cross-sectional survey methods, and few were conducted in low- and middle-income countries (LAMICs) such as South Africa. In LAMICs, the balance between job resources and job demands might be particularly uneven (Rothmann, Mostert, & Strydom, 2006) as workers have typically not been proactive in determining their job characteristics or shaping their work environment (Rothmann, 2003). Furthermore, these job contexts are quite different from those in high-income countries (HICs) such as the Netherlands and Australia, where much of the job crafting literature originates (Wrzesniewski & Dutton, 2001). Nonetheless, one of the few South African job crafting studies found, using a sample of high school teachers from the Gauteng province, that those who were allowed proactive opportunities to fashion their working practices (i.e., those whose work contexts were characterised by high levels of structural resources and challenging job demands) experienced increased work engagement (Peral & Geldenhuys, 2016). Hence, there is evidence suggesting that the positive effects of job crafting interventions might persist across different cultures, socioeconomic strata, and work contexts.

Hence, the proposed study seeks to add to the existing literature on job crafting by describing and evaluating the implementation of an employee-initiated job redesign intervention in an organisation in the South African construction industry.

## **1.2 Problem Statement**

There is a paucity of literature on the role job crafting plays in influencing work engagement. This paucity of literature is even more pronounced in LAMICs, because

most studies published in this area have emerged from high-income countries (HICs) in the global north. Furthermore, as noted above, most existing studies examining the job crafting-work engagement relationship have been of cross-sectional design. Hence, there is a research gap in the South African context, and any investigation attempting to fill that gap would be most useful if it was of (quasi)experimental design.

Because the construction industry is a crucial element of the South African economy, work engagement by employees in that industry is particularly important for improving health, promoting safety, and reducing the effects of organisational burnout (N. Bell, Powell, & Sykes, 2015; Olusa & Afolabi, 2017). Furthermore, a lack of such engagement by employees can have serious and costly health and safety consequences (Whiteoak & Mohamed, 2016). In recent years, several cases of collapsed buildings have made headlines. Although in most instances the source of the fault appeared to be substandard quality of materials, in at least a few instances construction workers have lamented the demanding, high-risk, and complex nature of the jobs they performed on the sites of the collapse (De Villiers, 2017; Evans, 2016; Potter, 2016). Furthermore, because construction companies work under tight deadlines and stringent requirements, and hence feel unable to reduce the demands on their employees, the latter need to exert agency in order to recraft their own jobs (Bowen, Edwards, Lingard, & Cattell, 2014).

### **1.3 Research Aims and Questions**

The primary aim of the proposed research is to evaluate the effectiveness of a job crafting intervention in improving levels of employee work engagement by changing the balance of job demands to job resources. The sample of interest is employees who work in the South African construction industry.

In essence, the study set out to answer this question: “Does a standardised job crafting intervention have a positive effect on the job demands and job resources, and hence on the work engagement, of employees in the South African construction industry?”

## 1.4 Definition of Key Terms

**Job crafting** refers to the physical and cognitive changes individuals make in the task or relational boundaries of their work (Demerouti, 2014; Demerouti & Bakker, 2014; Wrzesniewski & Dutton, 2001).

**Job demands** are physical, psychological, social, or organisational aspects of the job that need continued physical and/or psychological (cognitive and emotional) effort or skills, and are therefore related to certain physiological and/or psychological costs (Bakker & Demerouti, 2007).

**Job resources** are physical, social, and psychological aspects of the job that assist in achieving work goals, reducing job demands and the associated physiological and psychological costs, and stimulating personal growth and development (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001).

**Work engagement** is an affective-motivational, work-related state of mind in employees that is characterised by vigour, dedication, and absorption (Schaufeli & Bakker, 2004).

**Vigour** is defined as “high levels of energy and mental resilience while working, the willingness to invest effort in one’s work, and persistence also in the face of difficulties” (Schaufeli & Bakker, 2004, p. 295)

**Absorption** refers to individuals being fully concentrated on, and happily engrossed in, their work (Hakanen, Bakker, & Demerouti, 2005).

**Dedication** is defined as a “sense of significance, enthusiasm, inspiration, pride and challenge” (Schaufeli & Bakker, 2004, p. 295).

## 1.5 Outline of Chapters

**Chapter 1** provided an introduction and the motivation for the study. It also stated the research problem and described the research objectives from which the hypotheses will be developed.

**Chapter 2** provides a discussion of job crafting and work engagement by referring to previous, current, and possible future research. Specific reference is made to historical or traditional approaches to job redesign, and to how job crafting differs from such approaches. It further discusses the dimensions of work engagement, the Job Demands-Resources model, and previous job crafting intervention studies.

**Chapter 3** provides an overview of the research design used to execute the research. In particular, the chapter outlines the selection of the sample, data collection methods, the psychometric properties of the instruments used, a description of the intervention and the statistical techniques that were used.

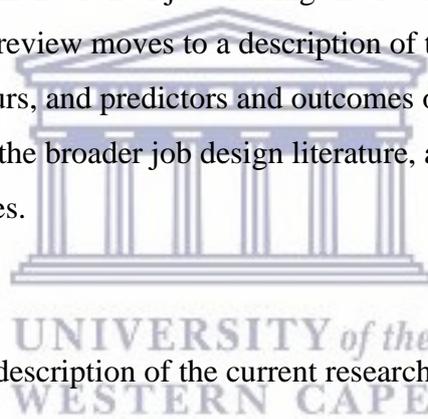
**Chapter 4** reports on the results detected by the statistical analyses used to test the hypotheses.

**Chapter 5** discusses the study's findings. In particular, it describes the conclusions that might be drawn from the most salient of the results. Then, the chapter describes limitations of the research design as well as implications of research findings. Finally, it presents recommendations that could benefit future researchers and relevant stakeholders.

## Chapter 2: Literature Review

### 2.1 Introduction

This chapter provides background information on, and a review of the literature surrounding, the major constructs on which the research focuses. The review starts with a historical overview of the job design literature, with particular focus on how job design approaches have evolved from top-down to bottom-up approaches. It then moves to a discussion of the Job Demands-Resources (JD-R) model, with particular focus on the impact of job demands and resources on work engagement. Subsequently, there is elaboration on the construct of work engagement (e.g., how it is distinct from similar constructs, such as workaholism and job satisfaction; how engaged employees might be distinguished from disengaged ones; and mechanisms linking the implementation of job crafting and resultant improvements in work engagement). From there, the review moves to a description of the concept of job crafting (including associated behaviours, and predictors and outcomes of job crafting), an explanation of how it fits into the broader job design literature, and a brief outline of previous job crafting intervention studies.



The chapter concludes with a description of the current research model and a presentation of the formal research hypotheses.

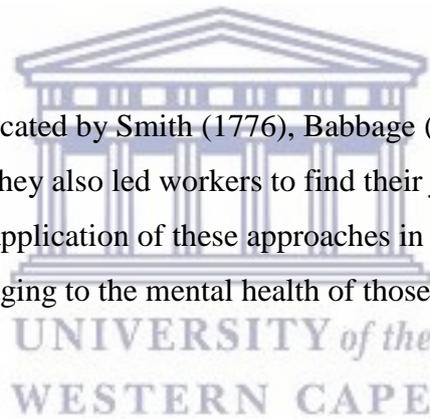
### 2.2 Job Design: Historical overview

The term *job design* refers to the way in which the content and processes of a job are changed and organised to optimize the performance, satisfaction, and motivation of each employee in an organization (Parker, Wall, & Cordery, 2001). The concept of job design originated with Adam Smith, around the time of the Industrial Revolution. He promoted the idea that job performance could be enhanced by breaking complex tasks down into simpler, easier-to-grasp, tasks (Smith, 1776). Charles Babbage (1835) supported and expanded on this idea,

stating that an advantage of job simplification was that a less skilled labour force could be employed, and that therefore labour costs could be greatly reduced.

Frederick Taylor (1911), sometimes termed the father of scientific management, built even further on this idea. He focussed primarily on determining the most efficient way to execute tasks, which involved simplifying job tasks in order to maximise worker efficiency. Taylor posited that because managers had the most knowledge about what output is required, they had to determine what the “One Best Way” was to do the job. They then had to design job tasks accordingly, so that workers could complete their tasks most efficiently. He further argued that if managers were to give workers rewards for increased productivity, this might inspire more hard-working behaviour but might also result in greater, and more rapid, fatigue because workers would not be familiar with the “right” way of doing the job. Hence, the crux of his proposition was that managers should take responsibility for designing workers’ jobs in such a way that they can do it the “best” way without getting exhausted (Zareen, Razzaq, & Mujtaba, 2013).

Although the approaches advocated by Smith (1776), Babbage (1835), and Taylor (1911) helped increase productivity, they also led workers to find their jobs repetitive, boring, tiring, and dissatisfying. Hence, the application of these approaches in factories and other industrial settings were potentially damaging to the mental health of those workers (Fraser, 1947; Walker & Guest, 1952).



The next era of job design research attempted to address these limitations. The focus of this era was job enrichment and autonomous work groups. The first major theory focusing on job enrichment was Herzberg’s (1966, 1976) Two-Factor Theory. Within this theoretical framework, Herzberg argued that jobs should be designed in such a way that they motivate employees and enhance employee growth across the domains of competence, achievement, recognition, and responsibility. Herzberg further postulated that the attitude of an employee towards work depends on *hygiene factors* (e.g., company policy, salary, working conditions, supervision, and other factors extrinsic to the work activities themselves) and *motivators* (e.g., achievement, recognition, the job itself, responsibility, and advancement). The theory then predicts that (a) although the presence of hygiene factors does not motivate or cause job satisfaction, their absence can create job dissatisfaction, whereas (b) the presence of

motivators can lead to job satisfaction, while their absence can lead to a lack of satisfaction (Herzberg, 1976).

Hackman and Oldman's (1976) Job Characteristic Model (JCM) offered a refinement of the Two-Factor Theory, proposing that well-designed jobs include five key features: autonomy, skill variety, task identity, feedback, and task significance. Empirical tests of the JCM suggest that when jobs are redesigned to increase the value of these features, one observes improved employee motivation, satisfaction, and performance (Parker et al., 2001).

Subsequent critiques and refinement of the JCM emerged from the changing context of organizational work. For instance, Oldham and Hackman (2010) noted that, when they published their initial research on job design, organizational work was generally structured as a linked set of specific jobs, performed by individuals who worked independently of one another in stand-alone companies. However, three decades after the original formulation of the JCM, this context is no longer dominant. Hence, the phenomena job design researchers study has been (and continues to be) transformed, and the field of job design is moving towards studying the relationship between people and the work they do (Bakker & Demerouti, 2014).

Consequently, studies within the job design literature have recognized that the 'one-size-fits-all' approaches described above are no longer defensible (Grant & Parker, 2009). Indeed, criticisms of traditional job design approaches have grown louder and more strident, arguing that they do not reflect and integrate the dramatic changes in organizational work contexts that have occurred over the past few decades (see, e.g., Humphrey, Nahrgang, & Morgeson, 2007; Tims & Bakker, 2010). Hence, a fundamental principle underlying contemporary job design approaches is that they integrate these changes in work contexts. Another foundation of these new approaches one that is critical to the current research: The individual employee is more actively involved in the job design process. That is to say, whereas classical job design approaches were top-down in nature, contemporary approaches identify the role of the individual employee as a proactive agent forming his/her own job and changing his/her own job characteristics. In other words, they integrate bottom-up and top-down approaches (Grant & Parker, 2009; Oldham & Hackman, 2010).

In conclusion, it is clear to see that recent research has begun to investigate proactive perspectives on job design. Otherwise stated, this research has begun to consider quite seriously that the individual employee can have an influence on developing or adjusting the boundaries of their tasks and the relational environments of their jobs (Grant & Ashford, 2008; Grant & Parker, 2009). One of these proactive approaches is job crafting, a process through which individuals adjust the number, type, and meaning of tasks that constitute their jobs, as well as their relationships with others in the workplace, to thereby redefine the meaning of their work and the workplace's social environment (Wrzesniewski & Dutton, 2001). Recent studies suggest that job crafting might be conceptualised as a key component of the theoretical framework provided by the Job Demands-Resources model. The next section describes that model in detail.

### 2.3 The Job Demands-Resources Model

The present study will use the Job Demands-Resources (JD-R) model as a theoretical framework to explain employees' wellbeing and work engagement (Bakker & Demerouti, 2007, 2014; Demerouti et al., 2001). As Figure 1 shows, in its original formulation the JD-R model attributes employee wellbeing to the characteristics of the work environment. Furthermore, the model assumes that, within the work environment, all characteristics of the job can be classed as either job demands or job resources (De Braine & Roodt, 2011).

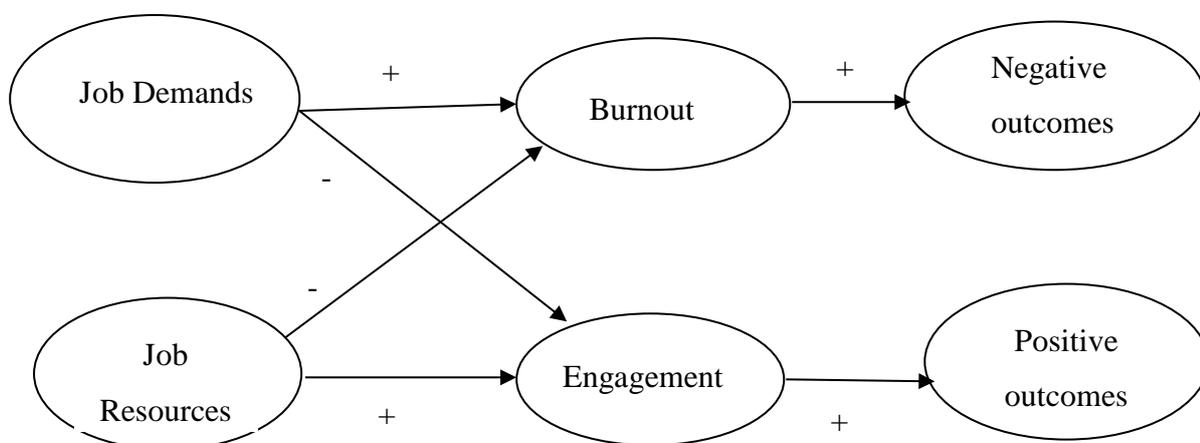
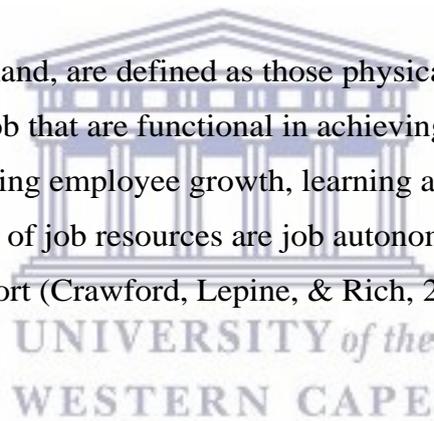


Figure 1. The Job Demands-Resources model, original formulation.

Within the model, *job demands* are defined as those physical, psychological (cognitive and emotional), social, or organizational aspects of a job that require sustained effort or skills, and that are therefore associated with certain physiological and/or psychological costs. Hence, most kinds of job demands (e.g., work overload, role conflict, ambiguity, and work-life conflict) are energy depleting. One strand of literature suggests, however, that not all job demands are depleting (see, e.g., Van den Broeck, De Cuyper, Luyckx, & De Witte, 2012). For instance, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009) reported that appropriate levels of workload and time pressure are positively associated with work engagement. It is clear to see, then, that any individual job demand can be either positive or negative, depending on the amount of effort needed to meet it (Bakker & Demerouti, 2007).

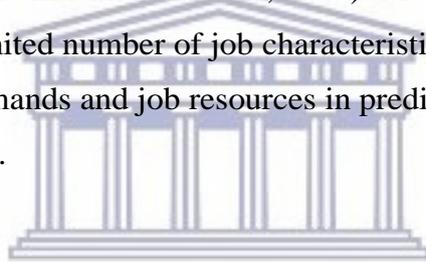
*Job resources*, on the other hand, are defined as those physical, psychological, social, or organizational aspects of a job that are functional in achieving work goals, in reducing job demands, and in stimulating employee growth, learning and development (Bakker & Demerouti, 2007). Examples of job resources are job autonomy, a positive workplace climate, and co-worker support (Crawford, Lepine, & Rich, 2010).



The model describes the relationship between job demands and job resources as being a balancing act: Too much of the former results in strain, whereas sufficient amounts of the latter result in high motivation. More specifically, the occurrence of job strain results from a depletion of energy caused by a situation where job demands are high and the employee is not provided with a sufficient amount of the needed job resources (Bakker & Demerouti, 2007). In contrast, when demands are high and an employee has sufficient resources, employees are motivated and engaged (Brenninkmeijer & Hekkert-Koning, 2015). In fact, the amount of job resources appears to be the strongest predictor of work engagement, especially in the presence of high job demands (Bakker, 2014; Rothmann et al., 2006).

An important corollary to the main JD-R theoretical framework postulates that job resources gain motivational potential when employees are confronted with highly challenging job demands (Bakker, 2011). Moreover, some researchers propose that job resources and personal resources affect each other bidirectionally, so that personal resources can also predict work engagement and job performance (see, e.g., Xanthopoulou et al., 2009).

The JD-R model is not the only published theory that attempts to explain the interacting effects of job demands and job resources on work engagement. It is, however, considered better than older models (e.g., the Jobs Demands Control Model (Karasek, 1979); the Effort Reward Imbalance Model (Siegrist, 1996); and the Comprehensive Burnout and Engagement (COBE) model (Schaufeli & Bakker, 2004)) because it can be used to predict employee wellbeing and work engagement within many different job contexts (De Braine & Roodt, 2011; Rothmann & Joubert, 2007). Moreover, whereas those older models considered only a limited number of job characteristics, the JD-R model considers all types of job demands and job resources in predicting work engagement (Bakker & Demerouti, 2007).



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Of particular relevance to the current research is that recent updates to the JD-R model incorporate, directly and particularly, the concept of job crafting (see Figure 2).

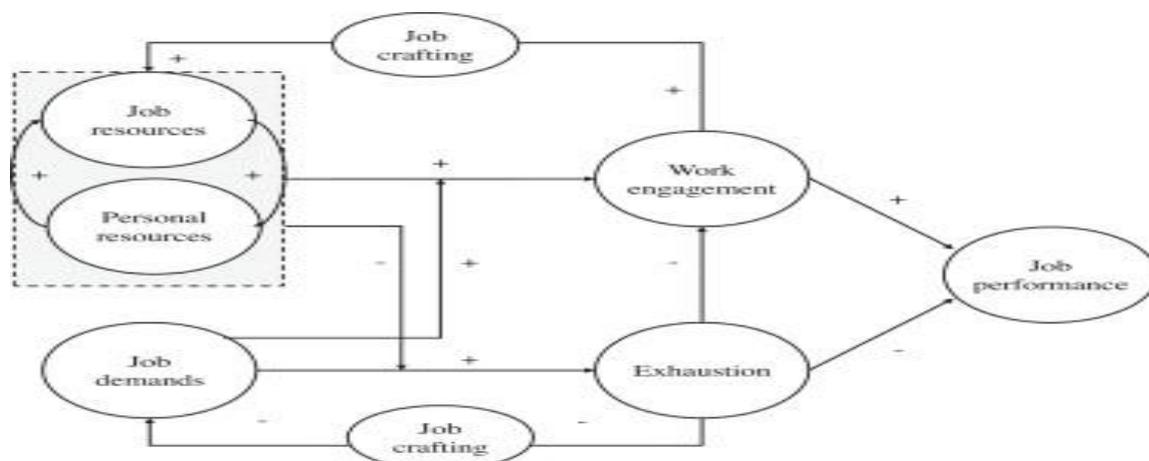


Figure 2. An updated version of the Job Demands-Resources model, incorporating a job crafting component. (From Bakker and Demerouti (2014, p. 10)).

Specifically, these updated versions of the model predict that job crafting, which involves the bottom-up moulding of the most important job demands and job resources by employees themselves, can have positive effects (both directly and indirectly) on both job performance and work engagement (Bakker & Demerouti, 2014; Tims et al., 2012).

## 2.4 Work Engagement

*Work engagement* is defined as a positive, fulfilling work-related state of mind that is characterized by three primary components: vigour (e.g., being highly energetic), dedication (e.g., being highly involved), and absorption (e.g., showing high levels of concentration at work; Bakker & Demerouti, 2007). This definition of work engagement corresponds to the focus of this research study (i.e., employees' experience of work) because it focuses on the work activity or the work itself (Schaufeli, Bakker, & Salanova, 2006). In contrast, other conceptualizations of engagement focus on personal engagement in the work role or on the creation of a committed community within the workplace (May, Gilson, & Harter, 2004; Sahoo & Mishra, 2012).

Furthermore, the psychological construct of work engagement is distinct from similar constructs, such as workaholism and job satisfaction. For instance, whereas workaholics appear to be motivated by an irresistible inner compulsion, engaged employees appear to thrive off the challenge of work, and choose to work hard because they find such activity to be pleasurable (van Beek, Hu, Schaufeli, Taris, & Schreurs, 2012). Moreover, whereas work engagement suggests an active, energetic, and dynamic state, and can be measured by affective variables such as enthusiasm, alertness, excitement, and elation, job satisfaction is a more passive and satiated condition that is associated more strongly with contentment, calmness, serenity, and relaxation (Schaufeli, 2012). Additional support for this distinction emerges from studies suggesting that engaged employees outperform satisfied employees (Rich, Lepine, & Crawford, 2010).

Finally with regard to the definitional boundaries of work engagement, some researchers (see, e.g., Mostert, Peeters, & Rost, 2011) suggest it can be the result of either a top-down process (i.e., reflecting something that managers or employers encourage in employees), or a bottom-up process (i.e., reflecting cognitive, behavioural, and affective ways in which employees respond to aspects of their work environment). Thus, when ways that people think, act, and feel reflect commitment to the job and the workplace, they are more likely to take advantage of learning opportunities and to perform more efficiently (Albert & Hallowel, 2013; Conchie, Moon, & Duncan, 2013; Demerouti & Cropanzano, 2010).

The literature suggests that engaged employees demonstrate several distinct, measurable characteristics: they are proactive and tend to take initiative; they set higher goals; they feel competent; they are intrinsically motivated; they show pro-social behaviour and tend to be friendly and cooperative; they experience positive emotions and process information better; and, finally, they are healthy and present (Schaufeli, Salanova, González-Romá, & Bakker, 2002). The presence of such characteristics is associated with better work performance (Bakker, Tims, & Derks, 2012; Locke & Latham, 2002). In contrast, disengaged employees tend to have negative work-related attitudes, and are prone to fatigue and burnout. Consequently, there is increased turnover and absenteeism when work engagement is low, meaning organisations must face the cost implications associated with such conditions (Conchie et al., 2013; Mostert et al., 2011).

As noted in the previous section, the JD-R model predicts that the level of an individual's work engagement is influenced by the balance between job demands that are motivational and those that are health-impairing, and by the balance between sufficient and inadequate job resources (Schaufeli & Bakker, 2004). In other words, when there is a mismatch between available resources and job demands (e.g., when the employee feels too little control over her work environment, and workload is too high while rewards are too low, and community values are incongruent with personal ones), there is a risk of burnout and disengagement (Maslach et al., 2001).

As also noted in the previous section, recent iterations of the JD-R model have included a job crafting component. A developing literature has examined, directly, the effects of job crafting interventions on work engagement. For instance, Petrou et al. (2012) reported that employees were more engaged on days when they undertook activities to increase job resources. They also found that all aspects of job crafting but one (hindering job demands) were positively related to work engagement. Similarly, Bakker et al. (2012) reported that employees who crafted their own levels of job demands and resources were more engaged with their work and, in turn, delivered better performance.

An extension of this developing literature specifies mechanisms linking the implementation of job crafting and consequent improvements in work engagement. For instance, Parker and Collins (2010) suggested that exposure to job crafting principles and ideas activates positive affect (e.g., enthusiasm, alertness, interest) in employees, and hence promotes proactive behaviour (e.g., in terms of aligning work conditions to their own needs and abilities, and organising job resources to create a challenging and rewarding work environment). Such behavioural tendencies allow employees to see more problem-solving possibilities, to think more innovatively, and ultimately, to perform better (see also Bakker, 2011; Bindl & Parker, 2011; Tims & Bakker, 2010).

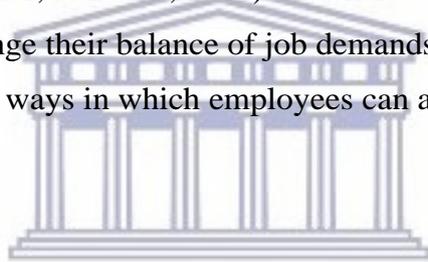
## **2.5 Job Crafting**

Previous sections have mentioned the concept of job crafting as it relates to the JD-R model and to work engagement. This section goes beyond those cursory mentions to more in-depth definitions of, and considerations surrounding, the concept.

Formally, *job crafting* is said to happen when employees are allowed to change the boundaries and conditions of job tasks and job relationships, and the meaning of the job (Wrzesniewski & Dutton, 2001). Within this definition, the term “boundaries”

encompasses task boundaries (i.e., type or number of activities), cognitive boundaries (i.e., how one sees the job), and relational boundaries (i.e., with whom one interacts at work). For instance, a sales representative may take on additional tasks at work, such as organising the year-end function; an engineer may reconceptualise his role as being a provider of homes for a community, rather than as merely a technical expert; and an academic may seek out cross-disciplinary collaborations rather than working on projects alone.

Hence, individuals who are engaged in job crafting actively strive to mobilise resources to fulfil their needs and to thrive at work, and they actively fashion a work environment that (a) allows, or even encourages, them to use their skills; (b) gives them opportunities to grow; and thereby (c) increases their wellbeing and their work engagement (Bakker & Demerouti, 2007; Tims, Bakker, & Derks, 2013). In other words, when employees use job crafting strategies to change their balance of job demands and job resources, this reflects proactive, bottom-up ways in which employees can alter the tasks and boundaries of their jobs.



Set within the framework of the JD-R model, job crafting may be conceptualized as the changes employees make to balance their job demands and resources with their personal abilities and needs. Specifically, then, job crafting within that context might be said to consist of three conceptually different dimensions: (1) increasing job resources (e.g., requesting more autonomy and asking for feedback); (2) increasing challenging job demands (e.g., starting new projects); and (3) decreasing hindering job demands, along both cognitive and emotional dimensions (Tims & Bakker, 2010; Tims et al., 2012).

Several studies demonstrate direct relationships between job crafting, as captured by the three dimensions listed above, and work engagement (see, e.g., Bakker, Oerlemans, & Ten Brummelhuis, 2013; Tims et al., 2013). For instance, Lee, Shin, and Baek (2017) showed, using cross-sectional survey-based methodology and a sample of part-time business school students who worked in several different South Korean private-sector

companies ( $N = 172$ ), that (a) the extent to which participants engaged in job crafting behaviours was positively associated with work engagement, and (b) three distinct types of job-crafting behaviour (task, cognitive, and relational job crafting) fully mediated the relationship between job resources and work engagement. Similarly, Sakuraya et al. (2017) reported, based on data from a sample of employees from a Japanese manufacturing company ( $N = 894$ ), that (a) increasing structural job resources is associated with higher work engagement and lower psychological distress, and (b) increasing both social job resources and challenging job demands is associated with higher work engagement.

Wrzesniewski and Dutton (2001) suggested that employees' motivation for job crafting arises from three basic individual needs: (1) the need to control certain aspects of their work in order to avoid negative consequences; (2) the need to enable a positive sense of self to be expressed, and to be confirmed by others; and (3) the basic human need for connection to others. Taken together, this trio of needs motivates individuals to craft their jobs so that they might experience enhanced meaning of work and a positive work identity (Berg, Dutton, & Wrzesniewski, 2013; Wrzesniewski & Dutton, 2001). Relatedly, Petrou et al. (2012) argued that individuals are motivated to craft their jobs so that they might create conditions under which they can work healthily and with motivation.

Although an employee proactively initiating changes is a core feature of job crafting, an employer might be able to stimulate job crafting by creating an inspiring and encouraging work environment. One way to create such an environment is to give employees insight into how they can influence the way their work aligns with their strengths, preferences, motives, and passions – in other words, to use a job crafting intervention.

### 2.5.1 Job Crafting Interventions

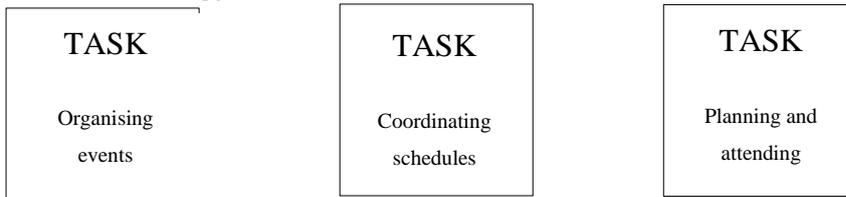
The present study describes the implementation and evaluation of a formal and standardised job crafting intervention, and asks whether that intervention is an effective tool to improve work engagement. The particular intervention was launched at the organizational level (i.e., it was provided to employees by management), and it was based on the JD-R theoretical framework (i.e., it aimed to optimize the balance between job demands, job resources, and personal resources in a bid to improve work engagement). This section first describes the intervention upon which that of the current study is modelled upon, and then goes on to describe some other forms of formal job crafting interventions.

The intervention used in the current study is modelled upon that described by Van den Heuvel, Demerouti, and Peeters (2012). They implemented their job crafting intervention in a police department. The intervention included training workshops, goal-setting exercises, longitudinal action plans, and reflection. The first training workshop, which lasted one day, introduced the process of job crafting by asking participants to reflect on and consider various aspects of their current job performance. Thereafter, the workshop leaders explained the essence of job crafting, and asked participants to complete some job crafting exercises. At the end of the day, each participant had written a personal crafting plan. Over the next four weeks, employees put this job crafting plan into practice; this was the action phase of the intervention. The intervention phase concluded after that four-week period, and immediately thereafter employees met with the researchers to discuss their job crafting experiences. This meeting, which constituted the reflection phase of the intervention, helped identify successes, problems, and solutions. Upon evaluation, the authors concluded that the job crafting intervention had a positive impact on work engagement (e.g., participants reported experiencing improved relationships with their superiors, with a better two-way flow of communication). Using a similar study design and intervention, but applying them to employees of a healthcare organisation, Gordon et al. (2017) found that job crafting can improve employee well-being and job performance.

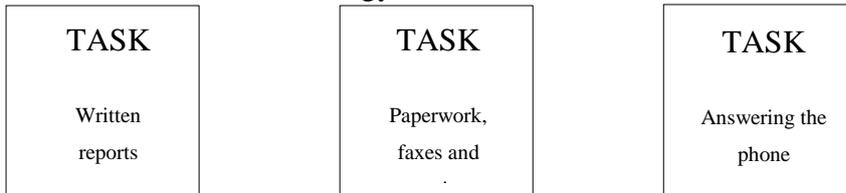
An alternative form of job crafting intervention is described by Berg et al. (2013). Their Michigan Job Crafting Exercise is designed to allow employees to craft their jobs to cultivate meaningfulness and to stimulate positive work attitudes. The overall aim of the intervention is to encourage the employee to see his/her job as a flexible set of building blocks, as opposed to being a monolithic structure. The logic is that, if the employee perceives flexibility in job structure, then it is easier for him/her to take active steps to make the job a better personal fit.

The Exercise begins by having participants visualise their own person-job fit. A key element of this step is the requirement to make a list of all current tasks and then rank them in order of amount of time spent completing them (least time to medium time to most time; see Figure 3). The second step requires participants to create a diagram of the ideal version of their jobs. This diagram provides them with an image of opportunities that can assist them to craft their job to be more meaningful. Next, participants consider their motives, strengths, and passions as they create a new set of task blocks that indicate how they would like to spend their time, energy, and attention in the future (i.e., that suggest what they perceive as their ideal job). They then create role frames around groups of tasks that they see as serving a common purpose. The final step of the Exercise involves formulating an action plan consisting of meaningful, personal changes in the work situation that will improve the person-job fit. In other words, the participant is asked to define specific goals and strategies that will be used to make the ideal version of the job, as described in the previous step, a reality.

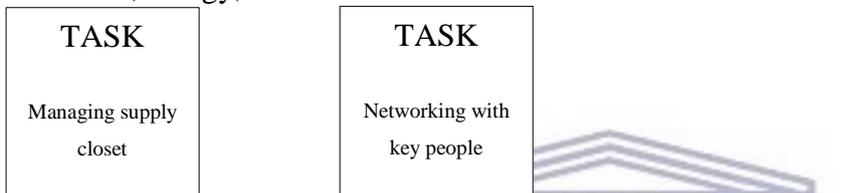
Most time, energy, and attention:



Moderate level of time, energy, and attention:



Least time, energy, and attention:



*Figure 3.* An administrative assistant's 'before sketch' (Part 1 of the Michigan Job Crafting Exercise). (From Berg et al. (2013, p. 31)).

Recently, Van Wingerden, Derks, and Bakker (2017) described a job crafting intervention based on the original Michigan Job Crafting Exercise and operationalized using principles of the JD-R model (i.e., the intervention consisted of exercises and goal setting aimed at increasing social and structural job resources and increasing challenging job demands). The intervention consisted of three training sessions, held over a period of six weeks. The first two sessions took place on one day, and the third (half-day) session took place four weeks later (see Figure 4). Within this intervention, participants are told that the goals they set at the end of Session 2 should be proactive, feasible, geared toward short-term outcomes, and based on their Session 1 and 2 visualizations of how well aspects of their current job situation fit their motives, strengths, and passions. These generally formulated goals are then refined and discussed in a group setting during Session 2. Toward the end of Session 2, specific job-crafting activities are proposed to each participant (planning). Between the end of Session 2 and the beginning of Session 3, participants put the plans into action in order to achieve their goals (striving).

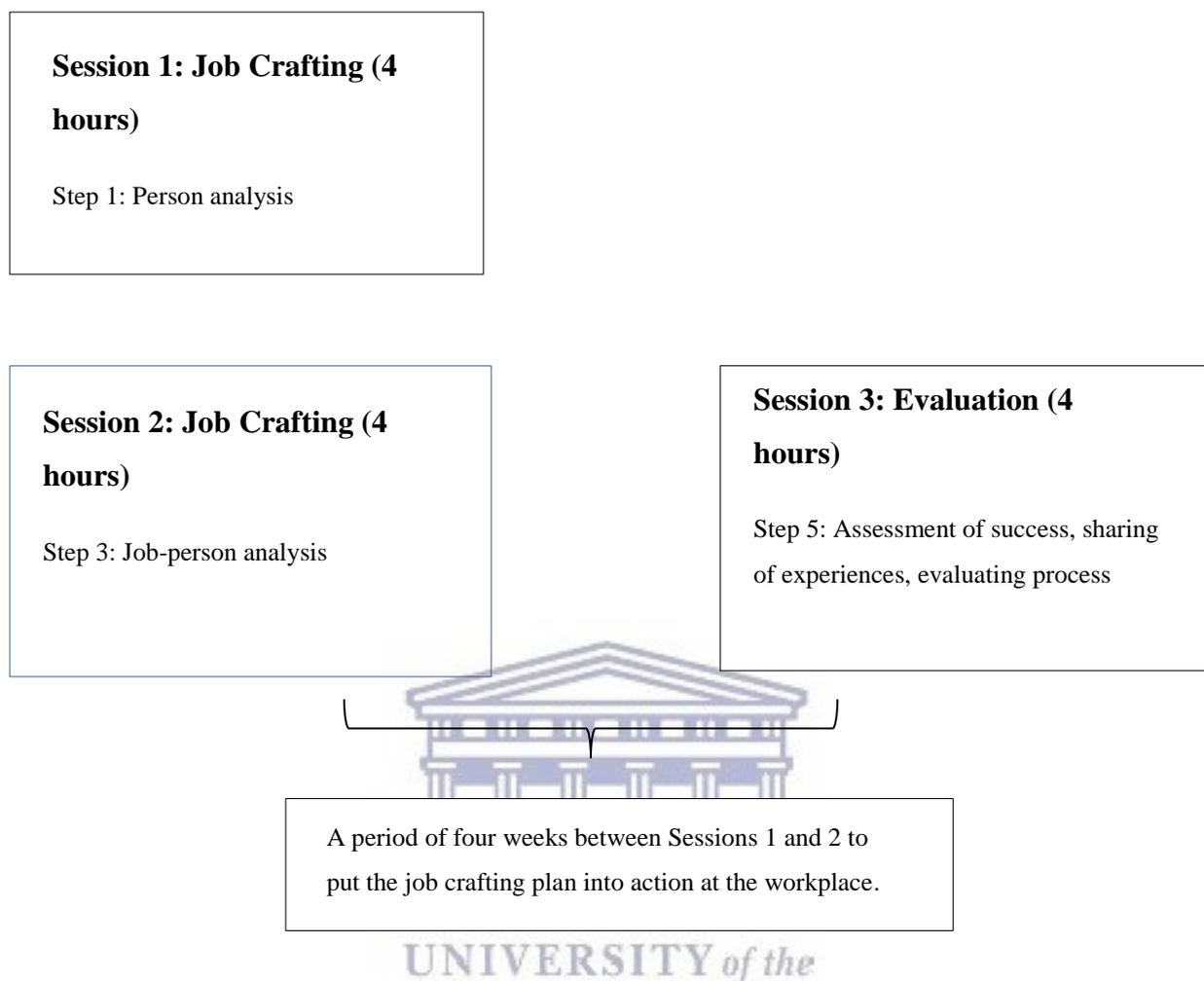


Figure 4. A three-session, six-step job crafting intervention design. (From Van Wingerden, Derks, et al. (2017, p. 168)).

## 2.5.2 Predictors of Job Crafting

Individual differences in job crafting behaviours are related to particular personal and contextual factors (Demerouti et al., 2015; Petrou et al., 2012). Regarding these personal factors, the key notion is that people are not passive recipients of environmental pressures. Instead, they actively influence their own environment. This relatively stable tendency to effect environmental change is defined, within one theoretical framework, as a *proactive personality* (Bateman & Crant, 1993; Crant, 1995). Individuals with such a personality type are more likely to identify opportunities, to take consequent action, and to thereby bring about meaningful change (Crant, 1996, 2000). Bakker et al. (2012) provided empirical evidence for the proactive personality theory, showing that individuals with such a

personality type engaged in more job crafting activities and were more likely to ask for help and feedback. Hence, they proactively enriched their work environment and were therefore more engaged with their work.

Similarly, Bell and Njoli (2016) provide empirical evidence in support of the Big Five personality factors as predictors of job crafting propensity. They reported that administrative employees of a tertiary institution who self-reported being conscientious, agreeable, open to experience, and neurotic engaged more strongly in job-crafting behaviours (i.e., they increased structural job resources, decreased hindering job demands, increased social job resources, and increased challenging job demands).

Regarding contextual factors that influence individual differences in job crafting behaviours, demanding aspects of a job such as task complexity and job challenges have been found to be positively related to job crafting, and to stimulate proactive crafting behaviour (Berg, Wrzesniewski, & Dutton, 2010). Similarly, the seminal diary study by Petrou et al. (2012) showed that, on days when work pressure and autonomy were both high, individuals showed higher resource-seeking and lower demand-reducing behaviours. Numerous other studies have confirmed that job autonomy, alongside decision latitude (i.e., the amount of discretionary behaviour afforded the employee in the work context), are positively associated with the presence of, and might actually stimulate, job crafting behaviours (Leana, Appelbaum, & Shevchuk, 2009; Lyons, 2008; Wrzesniewski & Dutton, 2001).

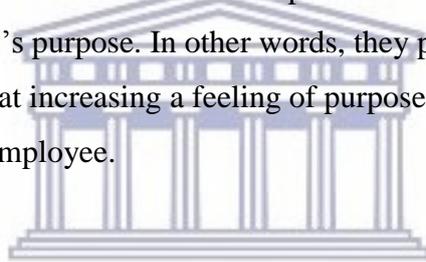
Another important contextual factor is employee rank. Berg et al. (2010) examined how employees of different ranks described the execution of their job crafting behaviour. Their results suggested that although rank was related to how employees perceived the challenge to craft their job, it was unrelated to the occurrence of job crafting efforts. Where the higher-ranking employees viewed the challenges presented in job crafting as part of their own expectations of how they and others should use their time, lower-ranking employees viewed those challenges as part of their given jobs and others' expectations of them. The study also found that higher-ranking employees adapted their own expectations and behaviours to get

along with opportunities to job craft at work, whereas lower-ranking employees adapted the expectations and behaviours of others to create opportunities to job craft.

### **2.5.3 Outcomes of Job Crafting**

Although research on the outcomes of job crafting is still in its infancy, the existing literature suggests there may be positive products, for both the employee and the organisation, of implementing such interventions.

For instance, Wrzesniewski and Dutton (2001) found that job crafting may positively affect employee work identity and the meaning they attribute to their work. They proposed that these effects may arise because, when job crafting involves the shaping of tasks and relationships at work, this allows the individual to experience their work in a different way, and therefore reframe their job's purpose. In other words, they predict that any individual employee action that is aimed at increasing a feeling of purpose at work is likely to change the meaning of work for that employee.



Subsequent studies have provided data supporting that prediction. For instance, Ghitulescu (2007) reported a positive link between job crafting and organizational commitment, and Lyons (2008) found significant positive correlations between episodes of work modification and measures of self-image, perceived control, and readiness to change.

A separate set of studies suggests that job crafting has a positive impact on individual employee outcomes. For instance, Nicholson (1984) found that role development (i.e., when an individual attempts to change role requirements so that they better match his/her needs, abilities, and identity) has the potential to increase individual satisfaction and capacity on-the-job learning. More recent studies, focused specifically on job crafting, have found that individuals who play an active part in shaping their work environment are more likely to experience better well-being, probably because they may feel they have more control over their environment (see, e.g., Tims et al., 2012). Similarly, Kristof-Brown, Zimmerman, and

Johnson (2005) found that engaging in job crafting may lead to an increase in person-job fit and that this, in turn, may lead to higher levels of individual job satisfaction and positive organisational outcomes, such as organisational commitment and employee retention.

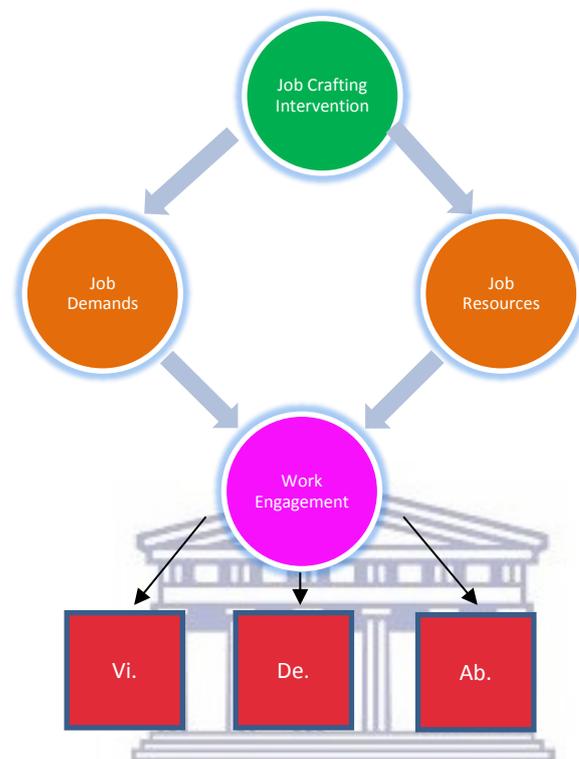
Other studies have also found positive effects of job crafting on organisational performance. For instance, Worline, Wrzesniewski, and Rafaeli (2002) stated that the manner in which individuals carried out their jobs could predict smooth work and project completion, and thus enhance broader organizational goals. They based this statement at least partly on an example of a graphic designer courageously telling her superiors that their planned direction for packaging and advertising of the product was not good, and then subsequently deciding to change the design – a change that impacted positively on the company’s performance. Similarly, Fletcher (1998) reported that design engineers engaging in additional tasks (e.g., taking on extra work and responsibility in order to get a task done, connecting people to resources) and improving relationships with others were able to create a smoother workflow and to move their projects toward completion more rapidly.

In South Africa, Peral and Geldenhuys (2016) showed that high school teachers who engaged in job-crafting behaviours displayed increased levels of subjective well-being (i.e., psychological meaningfulness and work engagement). The latter may, in turn, lead to a number of positive organisational outcomes (e.g., increased productivity, and employees who are more satisfied, engaged, and committed).

## **2.6 Research Model and Hypotheses**

Figure 5 provides a diagrammatic description of how the JD-R model predicts that job crafting affects work engagement. Specifically, the figure shows that the job crafting intervention is predicted to increase the experience that (a) job resources are more plentiful, and (b) job demands have changed so that those that hinder have been removed while those that remain are challenging but not overwhelming. These changed experiences are then

predicted to increase the level of work engagement, a change that is measured by the indicators vigour, dedication, and absorption.



*Figure 5.* Research model. The indicators of work engagement are vigour (Vi.), dedication (De.), and absorption (Ab.).

In other words, based on the literature reviewed above, I formulated the following major hypothesis to be tested in the present study:

There is a positive relationship between job crafting and work engagement amongst employees working in a South African construction company. Specifically, relative to participants in a non-intervention control group, participants who receive a job crafting intervention will, because of their changed experiences relating to job resources (higher) and job demands (lower), demonstrate higher levels of vigour, dedication, and absorption (i.e., higher levels of work engagement) at post-intervention measurement than at pre-intervention measurement.

This overall hypothesis can be broken down into several sub-hypotheses, with each reflecting a predicted pattern of scores on the particular factors, scales, or subscales within the UWES-17, the JCS, or the JDRS.

H1: Levels of work engagement (as indexed by UWES-17 measures of vigour, dedication, and absorption) will (a) statistically significantly increase from pre- to post-intervention in the Intervention group but not in the Control group, and (b) be statistically significantly higher at post-intervention in the Intervention group than in the Control group.

H2: Levels of job crafting (as indexed by JCS measures of increasing social job resources, increasing structural job resources, increasing challenging job demands, and decreasing hindering job demands) (a) statistically significantly increase from pre- to post-intervention in the Intervention group but not in the Control group, and (b) be statistically significantly higher at post-intervention in the Intervention group than in the Control group.

H3: Levels of JDRS-measured growth opportunities, organisational support, and advancement will (a) statistically significantly increase from pre- to post-intervention in the Intervention group but not in the Control group, and (b) be statistically significantly higher at post-intervention in the Intervention group than in the Control group.

H4: Levels of JDRS-measured overload and job insecurity will (a) statistically significantly decrease from pre- to post-intervention in the Intervention group but not in the Control group, and (b) be statistically significantly lower at post-intervention in the Intervention group than in the Control group.

H5: In the Intervention group, but not in the Control group, there will be a statistically significant positive correlation between pre- to post-intervention changes in the JCS indices (increasing social job resources, increasing structural job resources, increasing challenging job demands, and decreasing hindering job demands) and pre-

to post-intervention changes in the JDRS indices of growth opportunities, organisational support, and advancement.

H6: In the Intervention group, but not in the Control group, there will be a statistically significant negative correlation between pre- to post-intervention in the JCS indices (increasing social resources, increasing structural job resources, increasing challenging job demands, and decreasing hindering job demands) and pre- to post-intervention changes in the JDRS indices of overload and job insecurity.

H7: In the Intervention group, but not in the Control group, there will be a statistically significant positive correlation between pre- to post-intervention changes in the JCS indices (increasing social job resources, increasing structural job resources, increasing challenging job demands, and decreasing hindering job demands) and pre- to post-intervention changes in the UWES-17 indices (vigour, dedication, and absorption).

H8: In the Intervention group, but not in the Control group, there will be a statistically significant positive correlation between pre- to post-intervention changes in the JDRS indices of growth opportunities, organisational support, and advancement and pre- to post-intervention changes in the UWES-17 indices (vigour, dedication, and absorption).

H9: In the Intervention group, but not in the Control group, there will be a statistically significant negative correlation between pre- to post-intervention changes in the JDRS indices of overload and job insecurity and pre- to post-intervention changes in the UWES-17 indices (vigour, dedication, and absorption).

## **2.7 Conclusion**

This chapter provided a historical overview of the literature on job design, and then described the Job Demands-Resources model and how it relates to work engagement. It then discussed the job crafting literature, with specific focus on how job crafting fits into the JD-R model, different types of job crafting interventions, and predictors and outcomes of job crafting. The chapter ended with an overview of the research model and a statement of the hypothesis

tested in the present study. The next chapter details the research methods used to test that hypothesis.



## Chapter 3: Research Design and Methodology

### 3.1 Introduction

This chapter describes the research methods followed in the execution of the research project. Hence, the description includes details of the research design, sampling, data collection (including particulars about the instruments used and specifics about the way the intervention was conducted), data capturing, and statistical analyses. The chapter concludes with a section about ethical considerations relevant to the study.

### 3.2 Research Design

The *research design* is a set of guidelines and instructions to be followed in addressing the research problem (Mouton, 1996). Within that broad definition, the term *experimental design* refers to studies that seek to determine, using particular methods, whether a treatment, programme, or intervention had an intended causal effect on participants. The three key components of an experimental study design are (1) measures of the outcome both before (*pre-test*) and after (*post-test*) participants are exposed to the treatment, programme, or intervention (this is referred to as a *pre-post test design*), (2) the comparison of a group of participants who are exposed to the treatment, programme, or intervention (this is the *experimental group*) against a matched group not exposed to the treatment, programme, or intervention (this is the *control group*), and (3) *random assignment* of participants to one of the two groups. A *quasi-experimental design* is similar to an experimental design in that it tests causal hypotheses and identifies a comparison group that is as similar as possible to the treatment group in terms of baseline (pre-intervention) characteristics, but it lacks the key ingredient of random assignment (Shadish, Cook, & Campbell, 2002, p. 14).

The current study used a quantitative quasi-experimental research design. Participants from two research sites ( $n = 30$ ) were assigned to the control group, and participants from two

other research sites ( $n = 34$ ) to the intervention group. The job crafting intervention consisted of a training workshop, a personal crafting plan, and reflective exercises, all following those described by Van den Heuvel et al. (2012). Outcome measures (all based on self-report questionnaires) were taken before and after the intervention was implemented.

### 3.3 Population and Sample

#### 3.3.1 Population

In this context, the term *population* refers to the entire group of people, events, or things of interest that the research wishes to investigate (Sekaran & Bougie, 2013). Hence, the population for this study was employees of the Western Cape division of a national construction company. The rationale for sampling from this population is that this company is one of the five biggest South African construction corporations. For reasons of confidentiality, the identity of the company is not in this report.

#### 3.3.2 Sample

In this context, the term *sampling* refers to the process of selecting a portion of the population to represent the entire population (Foxcroft & Roodt, 2006). A *sample*, then, is a subset of the population. It comprises some people, events, or things selected from the population, so that some, but not all, elements of the population form the sample (Sekaran & Bougie, 2013). Hence, for this study, the sample was some employees of the construction company referred to above.

Generally, research methods textbooks (e.g., Mouton, 1996; Sekaran & Bougie, 2013) identify two major forms of sampling methods: probability and non-probability sampling. *Probability sampling* refers to a controlled, randomised procedure that assures that each population element is given a known non-zero chance of selection. In contrast, *non-probability sampling* means that the probability of any particular member of the population being chosen is unknown. The three major types of non-probability sampling techniques are (a) *convenience sampling*, which refers to a technique where the sample is selected based

purely on availability, and the most easily accessible people, events, or things are chosen as subjects of the study; (b) *judgement sampling*, which refers to a technique where the sample is selected on the basis of expertise in the topic under investigation; and (c) *quota sampling*, which refers to a technique where the sample is selected based on particular characteristics (e.g., age, gender, socioeconomic status). The current study used convenience sampling. Advantages of this technique are that, because participants are recruited on a voluntary basis, it is generally quick, convenient, economical, and practical (Rosenthal & Rosnow, 2007).

In the current design, participants in the intervention group were sampled from two different construction sites, whereas those in the control group were sampled from two other construction sites. This aspect of the design meant that the effect of contamination was limited (i.e., the design limited the risk of the experience of participants in one condition affecting that of participants in the other condition).

Regarding eligibility criteria for participation, the sample was intended to include employees from all levels, ranging from semi-skilled workers to professionals. The lowest-level employee allowed to participate had to have a literacy level adequate to allow for valid completion of the study instruments and procedures.

### **3.3.4 Sample Characteristics**

Sixty-four individuals comprised the initial sample. Of these, 33 (5 women, 28 men) were assigned to the intervention group, 31 (5 women, 26 men) were assigned to the control group. Across the course of the study, 8 individuals in the control group (1 woman, 8 men) dropped out – the woman because she went on maternity leave, three men because they resigned from the company's employ, and four other men because they went on annual leave. Another man in the control group did not complete all of the questions on the post-intervention measures.

Hence, the final sample for data analysis was constituted thus: Intervention group = 33 (5 women, 28 men), control group = 22 (4 women, 18 men). The general job classification of

each individual was either administrative (e.g., health and safety clerk), managerial (e.g., contracts manager), operational (e.g., foreman), or technical (e.g., engineer).

Chapter 4 provides further description and analysis of the sample characteristics.

### **3.4 Measurement Instruments**

The instruments were a biographical questionnaire and three standardised measurement scales: (1) the Utrecht Work Engagement Scale, (2) the Job Crafting Scale, and (3) the Jobs Demands-Resources Scale.

#### **3.4.1 Biographical questionnaire**

This questionnaire collected sociodemographic information (e.g., age, gender, level of education, home language, and marital status; see Appendix A). It also enquired about details of the participant's employment at the company (e.g., number of years s/he had been working for the organisation). All of this information was used purely for statistical purposes.

#### **3.4.2 The Utrecht Work Engagement Scale**

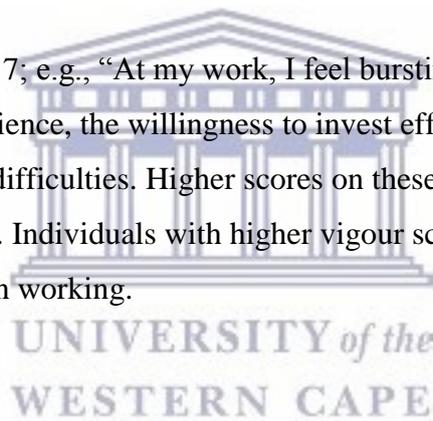
The most well-known of the several available self-report instruments that measure work engagement is the Utrecht Work Engagement Scale (UWES; Schaufeli et al., 2002; see Appendix B). Although this scale was designed primarily to measure the individual employee's level of engagement in his/her work, it can also be used to determine the possible causes and consequences of engagement (Schaufeli & Bakker, 2004).

Different research studies have used different versions of the UWES (see, e.g., Nerstad, Richardsen, & Martinussen, 2010; Schaufeli & Bakker, 2003; Seppälä et al., 2009). The primary feature distinguishing these different versions is length: The full length version

includes 17 items, whereas the shortened version includes 9 items. This study used the full-length version, the UWES-17.

On the UWES-17, items are scored on a seven-point Likert-type scale with response options ranging from 0 (*never*) to 6 (*always*). All items are scored positively (i.e., no item is phrased in such a way that reverse scoring is necessary). Schaufeli and Bakker (2004) established that the scale measures three underlying dimensions of work engagement: vigour (six items, with Cronbach alphas ranging from .75 to .82); dedication (five items, with Cronbach alphas ranging from .88 to .90); and absorption (six items, with Cronbach alphas ranging from .70 to .75). Internal consistency and reliability for the three subscales ranges between .68 and .91 (Coetzee & Rothmann, 2005; Field & Buitendach, 2011).

*Vigour* (items 1, 4, 8, 12, 15, 17; e.g., “At my work, I feel bursting with energy”) refers to high levels of energy and resilience, the willingness to invest effort, not being easily fatigued, and persistence in the face of difficulties. Higher scores on these items generate higher scores on the UWES vigour subscale. Individuals with higher vigour scores have higher levels of energy, zest, and stamina when working.



*Dedication* (items 2, 5, 7, 10, 13; e.g., “I am enthusiastic about my job”) refers to a sense of pride, and feelings of significance and enthusiasm, in one’s work, as well as feeling the work is positively challenging. Higher scores on these items generate higher scores on the UWES dedication subscale. Individuals with higher dedication scores tend to identify more strongly with their work because they experienced it as being meaningful, inspiring, and challenging.

*Absorption* (items 3, 6, 11, 14, 16.; e.g., “When I am working, I forget everything else around me”) refers to being totally and happily immersed in one’s work, and having difficulty detaching oneself from it so that time passes quickly and one forgets everything else that is around. Higher scores on these items generate higher scores on the UWES absorption subscale.

Overall, then, higher levels of vigour, dedication, and absorption suggest the respondent reports experiencing higher levels of work engagement.

Regarding psychometric properties when applied to South African samples, the UWES has been proven valid for use in this country (Rothmann & Jordaan, 2006). For instance, using data from a sample of South African Police Service employees ( $N = 2396$ ), Storm and Rothmann (2003) confirmed that the UWES-17 maintained its three-factor structure, and reported internal consistency alpha coefficients of .78 (vigour), .89 (dedication), and .78 (absorption) for the three subscales.

### **3.4.3 Job Crafting Scale**

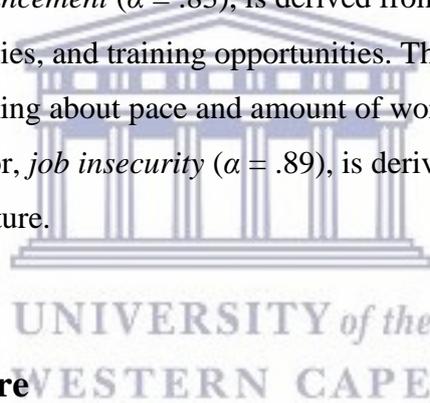
The Job Crafting Scale (JCS; Tims et al., 2012; see Appendix C) consists of 21 items, each scored on a five-point Likert-type scale, with response options ranging from 1 (*never*) to 5 (*very often*). The developers report that the scale measures four independent factors, each with a reliability coefficient considered to be at least adequate. The first factor, *increasing social job resources*, is measured using five items (e.g., “I ask others for feedback on my job performance”), with  $\alpha = .78$ . The second factor, *increasing structural job resources*, is also measured using five items (e.g., “I make sure that I use my capacities to the fullest”), with  $\alpha = .71$ . The third factor, *increasing challenging job demands*, is also measured using five items (e.g., “When there is not much to do at work, I see it as an opportunity to start new projects”), with  $\alpha = .69$ . The fourth factor, *decreasing hindering job demands*, is measured using six items (e.g., “I make sure that my work is mentally less intense”), with  $\alpha = .73$ .

### **3.4.4 Job Demands-Resources Scale**

The Job Demands-Resources Scale (JDRS; Rothmann et al., 2006; see Appendix D) was developed to measure competing job demands and resources that might affect experience of engagement with work. The original version (Jackson & Rothmann, 2005) comprised 40 questions, each scored on a four-point Likert-type scale, with response options ranging from 1 (*never*) to 4 (*always*). Items relate to pace and amount of work, mental load, variety in work, opportunities to learn, independence in work, relationships with colleagues,

relationships with immediate supervisor(s), ambiguities about work, information, communications, participation, contact possibilities, uncertainty about the future, remuneration, and career possibilities. Rothmann et al. (2006) modified the original JDRS slightly, including two additional questions, after they validated the instrument for use with South African samples. This study used that modified 42-item version.

Rothmann et al. (2006) reported that their modified JDRS measures five independent factors, each with a reliability coefficient considered to be at least adequate. The first factor, *growth opportunities* ( $\alpha = .86$ ), is derived from items that ask about having enough variety, opportunities to learn, and independence in the job. The second factor, *organisational support* ( $\alpha = .92$ ), is derived from items that ask about the relationship with supervisors and colleagues, flow of information, communication, role clarity, and participation in decision-making. The third factor, *advancement* ( $\alpha = .83$ ), is derived from items asking about remuneration, career possibilities, and training opportunities. The fourth factor, *overload* ( $\alpha = .76$ ), is derived from items asking about pace and amount of work, mental load, and emotional load. The fifth factor, *job insecurity* ( $\alpha = .89$ ), is derived from items asking about uncertainty regarding work future.



### 3.5 Research Procedure

All procedures took place at the participant's site of work. The researcher administered all procedures. Administrative staff otherwise unaffiliated with the research assisted by distributing and collecting questionnaires. With the permission of their line managers, participants completed questionnaires and other study-related activities during work hours.

To prepare for the pre-intervention phase of the procedure, the researcher delivered a sealed envelope containing a packet of questionnaires to the contract manager at each of the study sites. The researcher also ensured that, at each site, there was a box in the site

administrator's office where participants could drop off their completed questionnaires. The pre-intervention phase involved the participants reading and signing an informed consent document (see Appendix E), and then completing the biographical questionnaire, the UWES-17, the JCS, and the JDRS, in that order. They then deposited the completed documents into the drop-off box. The researcher collected those documents shortly thereafter.

To prepare for the post-intervention phase of the procedure, the researcher again delivered a sealed envelope containing a packet of questionnaires to the same contract manager as before. Participants completed only the UWES-17, the JCS, and the JDRS, in that order. As before, they deposited the completed documents into the drop-off box, and the researcher collected those documents shortly thereafter.

The pre- and post-intervention phases were separated by 6-8 weeks for each participant, with variation dependent on the work schedules at each site.

### **3.5.1 Procedures for the intervention group**

For participants assigned to this group, the job crafting intervention began 2-4 weeks after completion of the pre-intervention measurements, with variation dependent on the work schedules at each site.

Regarding the intervention itself, it was modelled on that described by Van den Heuvel et al. (2012). The choice of that particular form of job crafting intervention was based on the fact that it is congruent with the JD-R model, and hence seeks to make participant employees aware of that model's three key strategies for changing job demands and resources (i.e., increasing resources, increasing challenging job demands, and decreasing hindering job demands). Hence, the intervention consisted of a training workshop, a personal crafting plan, and a reflection exercise, which took place over a period of 4 weeks (see Table 3.1).

Table 1  
*Overview of the Current Job Crafting Intervention*

Phase				
Pre	Intervention			Post
	Training workshop	Personal crafting plan	Reflection exercise	
Week 1	Week 2	Week 2	Week 5	Week 6

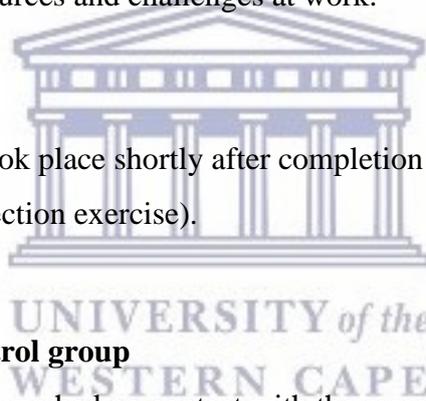
Each *training workshop* was presented to a group of between six and eight participants. It took the format of a presentation (see Appendix F) and subsequent focus-group discussions and exercises. The presentation began with a discussion on work engagement and what it means to be engaged with your work. Thereafter, the researcher explained the JD-R model before launching into descriptions of (a) what job crafting means, (b) success stories of past job-crafting behaviours, and (c) case study examples. At the conclusion of the presentation, participants were divided into groups of two. The researcher instructed each participant to write down what their job demands were, what job resources they had available to them, how they could decrease the former and increase the latter, and then how they could use increased resources to further reduce demands. Each group of two then presented to the larger group what they had written down, and the researcher invited discussion around the identified issues and challenges. Subsequently, participants were asked to discuss which things they could change in their work to increase social job resources, structural job resources, and challenging job demands. Overall, the aim of this goal-setting exercise was to stimulate participants to (a) proactively optimize their own job demands and resources, (b) gain an understanding of how job crafting can be applied to any job, and (c) reflect on their current work performance.

The second part of the training workshop consisted of an individual exercise that resulted in a *personal crafting plan*. This exercise involved each participant describing the job crafting goals and actions they would undertake, based on the previous exercise and discussions. The researcher instructed the participant to set two goals for increasing job resources and one goal for decreasing job demands. For each goal, the participant had to identify pathways to achievement and possible obstacles to completion. Before the workshop concluded, the

researcher reminded participants that they should aim to set one goal, and to achieve that goal, during each of the three weeks following the training.

The *reflection exercise* took place 3 weeks after the training workshop. This exercise took place within the context of focus-group sessions, each featuring 6-8 participants. During these group discussions, the researcher guided reflection on challenges the participants had experienced in attempting to achieve their job-crafting goals, what had worked well during the intervention phase, and whether they had succeeded in accomplishing their goals. The participants were also encouraged to discuss what they would need in the future to maintain the fit between their personal competencies, their preferences, and their job. Ultimately, the aim of these reflection discussions, and the intervention overall, was to teach participants what they could do to change elements of their jobs and their relationships with others in order to increase their job resources and challenges at work.

The post-intervention phase took place shortly after completion of the intervention phase (i.e., within a week of the reflection exercise).



### **3.5.2 Procedures for the control group**

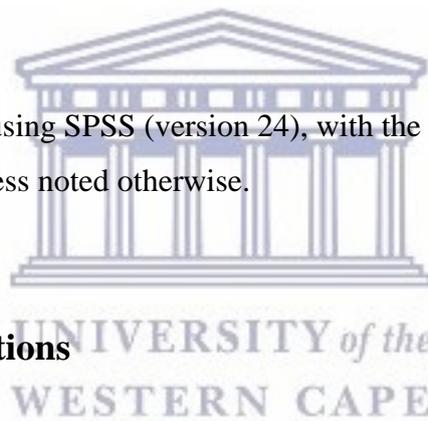
Participants assigned to this group had no contact with the researcher, and were involved in no study-related activities, between the pre- and post-intervention phases.

## **3.6 Data Management and Statistical Analysis**

Analysis of the collected data proceeded across seven broad steps. First, after collecting the questionnaires from the participants' work sites, all raw data were entered into a Microsoft Excel spreadsheet. Second, outcome variables of interest (i.e., scores on each of the UWES-17, JCS, and JDRS subscales) were derived by adding together the appropriate item scores (Rothmann et al., 2006; Schaufeli & Bakker, 2004; Tims et al., 2012). Third, a complete set of descriptive statistics was generated for (a) each key sample sociodemographic

characteristic (age, gender, highest level of education), (b) each key sample employment characteristic (length of service at the construction company, length of time in current position, current work status (full-time versus contract), and current job classification (administrative, managerial, operational, technical, or other), and (c) each outcome variable. These descriptive statistics allowed examination of the data distributions and the assumptions underlying subsequent inferential analyses. Fourth, a series of chi-square tests of independence assessed between-group differences with regards to each key sample sociodemographic characteristic. Fifth, a similar series of chi-square tests of independence assessed between-group differences with regards to each key sample employment characteristics. Sixth, a series of 2 (Time: pre-intervention, post-intervention) x 2 (Group: Intervention, Control) repeated-measures ANOVAs and independent-samples *t*-tests tested the predictions made by Hypotheses 1-4. Seventh, a series of bivariate correlational analyses (using Pearson's *r* correlation coefficient) tested the predictions made by Hypotheses 5-9.

All analyses were completed using SPSS (version 24), with the threshold for statistical significance ( $\alpha$ ) set at .05, unless noted otherwise.



### **3.7 Ethical Considerations**

#### **3.7.1 Consent and confidentiality**

All individuals enrolled in the study were required to read and sign an informed consent document (see Appendix E). That document (a) explained the aims and purposes of the study, (b) ensured that the participant knew that participation was voluntary, and that s/he could withdraw from the study at any point, with no penalty, (c) indicated who would have access to the data, and (d) outlined the risks and benefits of participation. The document also gave the name and contact details of me and my supervisor, so that we could be reached easily if there were any concerns.

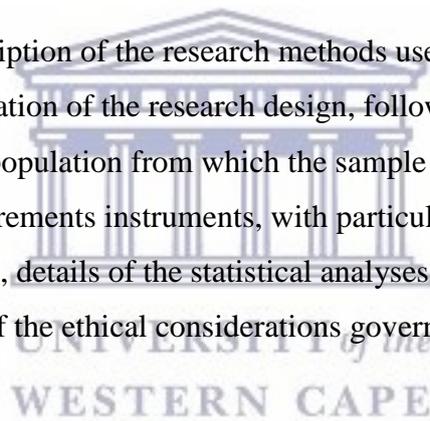
To ensure participant anonymity and the confidentiality of their data, the researcher assigned a unique code to each participant. This code was used on all pre- and post-intervention questionnaires. The key to the code is held in a password-protected file on the researcher's personal computer, and only she and her supervisor have access to it.

### **3.7.2 Risks and benefits**

There were no social, psychological, and physical risks for participation in the study. No participant was paid to participate in the study, and hence there were no immediate and direct benefits of participation.

## **3.8 Conclusion**

This chapter presented a description of the research methods used in the present study. The chapter started with an explanation of the research design, followed by an overview of the sampling procedures and the population from which the sample was drawn. Next, a major subsection outlined the measurements instruments, with particular focus on their psychometric properties. Then, details of the statistical analyses were discussed. The chapter concluded with an overview of the ethical considerations governing the data collection process.



## **Chapter 4: Results**

### **4.1 Introduction**

The objective of this chapter is to present the statistical analyses that were performed to test the hypotheses, as described in chapter three. Firstly, the sample sociodemographic and employment characteristics are presented. Followed by the research findings obtained based on the descriptive statistics for the measuring instruments which were utilized. Lastly, an analysis of each hypothesis tested is presented.

### **4.2 Sample Sociodemographic Characteristics**

Table 2 presents information describing the basic biographical characteristics of the sample, and the results of the relevant between-group comparisons. Although the analyses detected no significant between-group differences with regard to sex distribution across the groups, they did detect significant age- and education-related differences. Specifically, participants in the Intervention group were, on average, significantly younger and more highly-educated than those in the Control group.

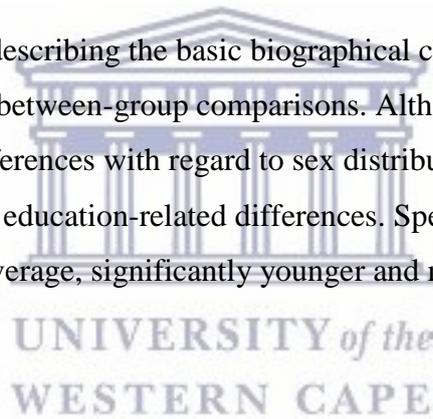


Table 2  
*Sample Sociodemographic Characteristics (N = 55)*

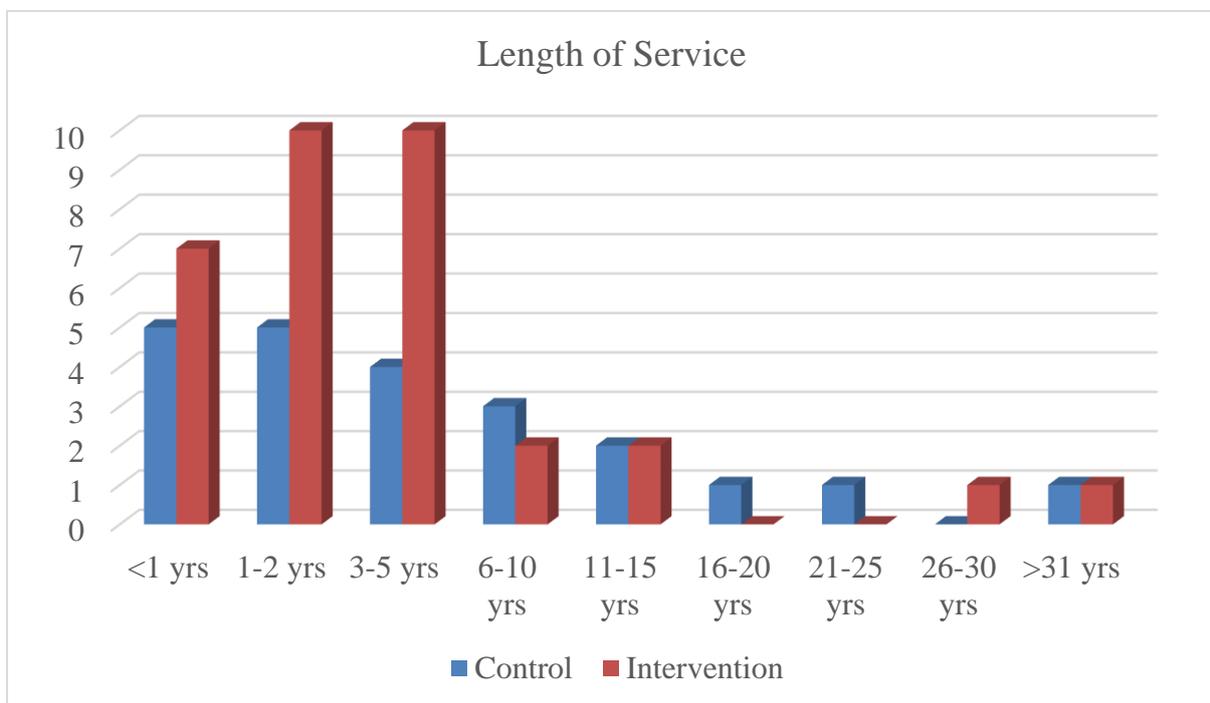
Variable	Group		$\chi^2$	<i>p</i>	ESE
	Control ( <i>n</i> = 22)	Intervention ( <i>n</i> = 33)			
Age (years) <sup>a</sup>			5.24	.02*	.31
< 20	0	1			
20-29	4	15			
30-39	9	9			
40-49	5	6			
50-59	2	1			
60-69	2	1			
Gender			.08	.77	.04
Male	18	28			
Female	4	5			
Highest level of education <sup>b</sup>			6.54	.01*	.38
≤ Grade 11	4	1			
Grade 12	9	8			
Post-matric diploma	3	7			
Bachelor's degree	0	8			
Postgraduate degree	2	3			

*Note.* Data provided are raw counts. <sup>a</sup>Statistical analyses are presented for those younger than 30 years versus those 30 or older. <sup>b</sup>Statistical analyses are presented for those who completed 12 years (matric) or less of education versus those with post-matric qualifications. Note that four data points were missing for the Control group, and six for the Intervention group. ESE = effect size estimate (in this case, Cramer's *V*).

\**p* < .05. All *p*-values are two-tailed.

### 4.3 Sample Employment Characteristics

Figure 6 presents information, broken down by group, regarding variation in participants' length of service at the construction company (i.e., with their current employer). Analyses detected no significant between-group differences in terms of those who had been with the company for 5 or fewer years and those who had been with it for longer,  $\chi^2(1) = 2.30$ ,  $p$  (two-tailed) = .13, Cramer's  $V = .20$ . In both groups, most participants had been employed at the construction company for fewer than 6 years.



*Figure 6.* Number of years employed by the current construction company ( $N = 55$ ). The bars reflect the number of participants in each of the Control and Intervention groups with a particular length of service.

Figure 7 presents information, broken down by group, regarding variation in participants' length of time in their current position within the construction company. Analyses detected no significant between-group differences in terms of those who had been in their current position for 2 or fewer years and those who had been in it for longer,  $\chi^2(1) = 1.93$ ,  $p$  (two-tailed) = .17, Cramer's  $V = .19$ . In both groups, most participants had been employed in their current position for fewer than 3 years.

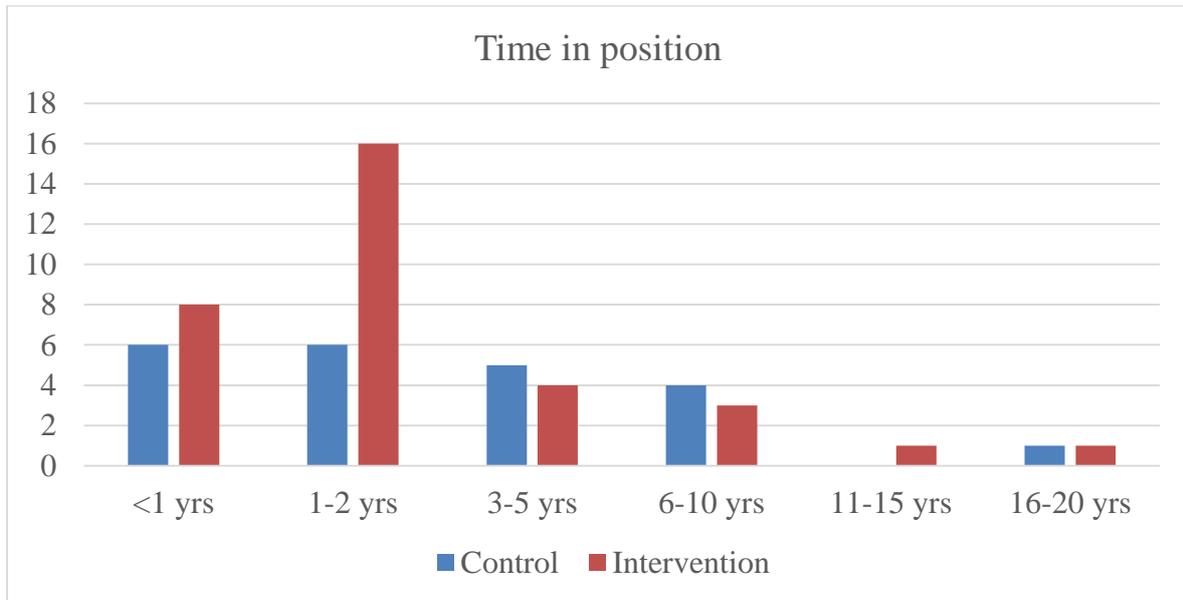
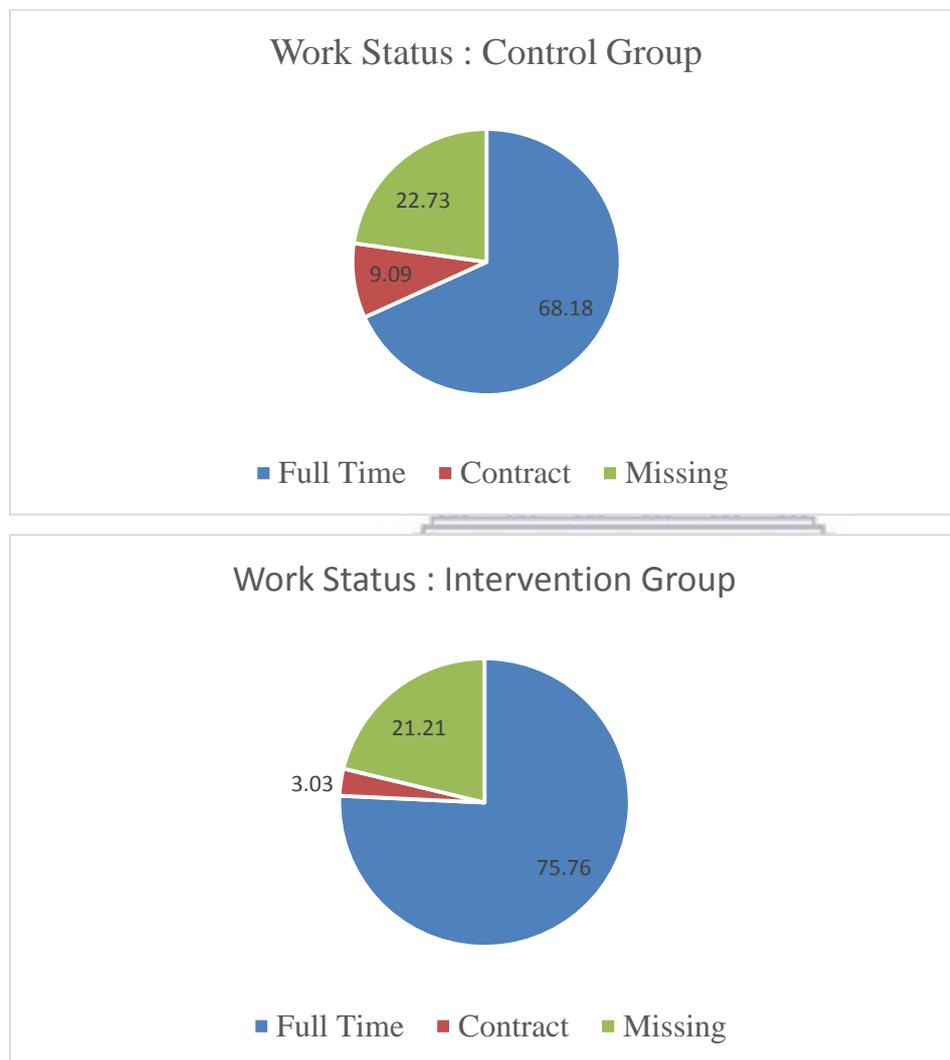


Figure 7. Number of years the current position has been held ( $N = 55$ ). The bars reflect the number of participants in each of the Control and Intervention groups with a particular length of time in the current position.

Figure 8 presents information, broken down by group, regarding participants' current employment status. Analyses detected no significant between-group differences in terms of those who reported being employed on a full-time, permanent basis and those who reported being contract employees,  $\chi^2(1) = 0.99$ ,  $p$  (two-tailed) = .32, Cramer's  $V = .15$ . In both groups, the vast majority of participants who provided data for this question reported being employed on a full-time, permanent basis. (Note that five data points were missing for the Control group, and seven for the Intervention group.)



*Figure 8.* The top panel presents information regarding the number of Control-group participants who were employed on a full-time, permanent basis versus those who were contract employees. The green pie slices indicate the number of pieces of missing data. The bottom panel presents analogous information for the Intervention group.

Figure 9 presents information, broken down by group, regarding the general category into which participants classified their current job. Analyses detected no significant between-group differences in terms of the general distribution of job types,  $\chi^2(4) = 1.89$ ,  $p$  (two-tailed) = .76, Cramer's  $V = .22$ . In both groups, the category labelled 'managerial' contained the largest percentage of participants. (Note that four data points were missing for the Control group, and seven for the Intervention group, and, furthermore, that two Control-group participants and three Intervention-group participants provided unusable data by endorsing more than one category.)

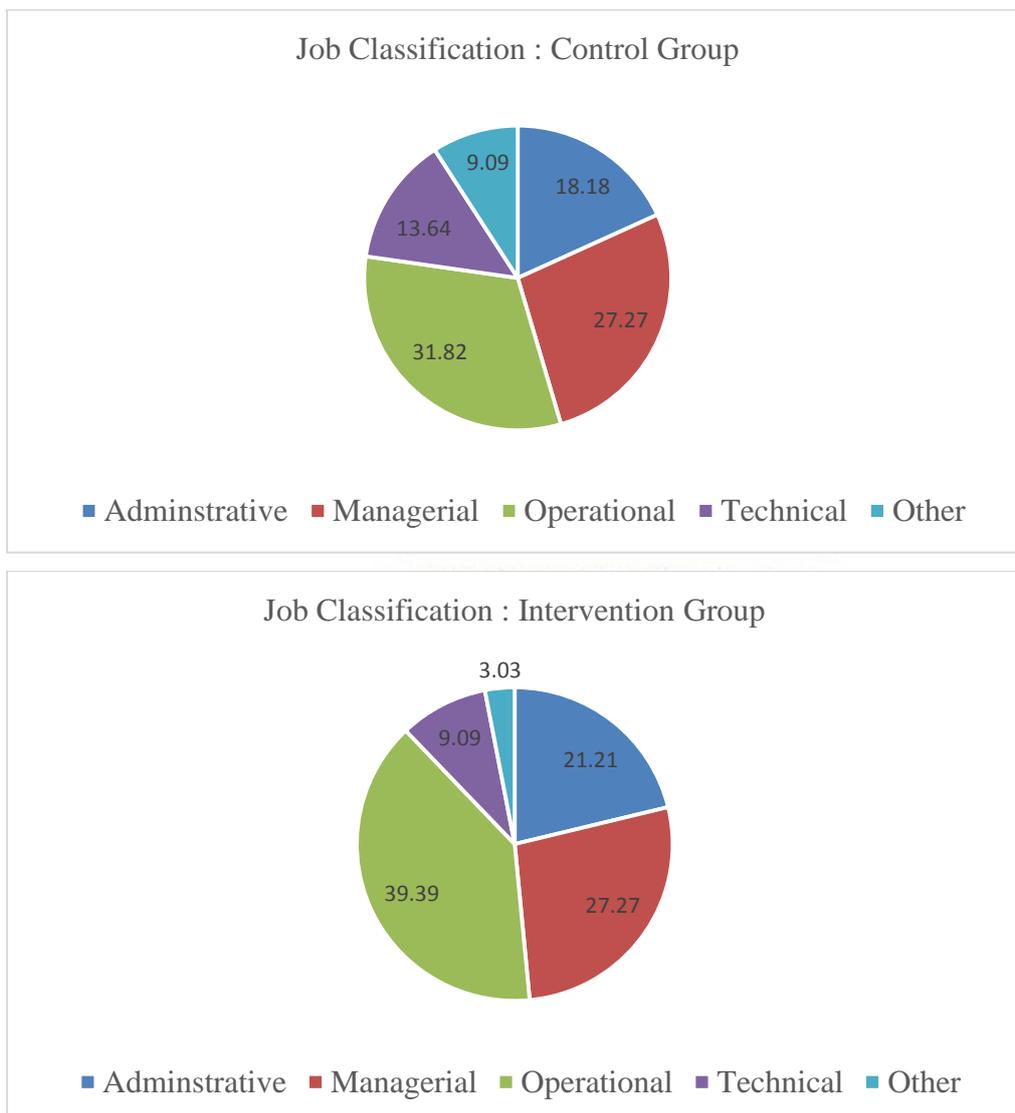


Figure 9. The top panel presents information regarding the number of Control-group participants who were employed on a full-time, permanent basis versus those who were contract employees. The green pie slices indicate the number of pieces of missing data. The bottom panel presents analogous information for the Intervention group.

## 4.4 Descriptive Statistics: UWES-17, JCS, and JDRS

Table 3 presents relevant descriptive statistics, split by group, for the study's three major measures. These were the data used in the analyses described in subsequent sections of this chapter.

Table 3  
*Descriptive Statistics for the Study's Three Major Measures (N = 55)*

Scale / Subscale	Group			
	Control (n = 22)		Intervention (n = 33)	
	Pre	Post	Pre	Post
<b>UWES-17</b>				
Vigour	4.87 (0.90)	4.24 (1.00)	4.56 (0.91)	4.98 (0.63)
Dedication	5.19 (0.79)	4.67 (0.90)	5.04 (0.69)	5.19 (0.50)
Absorption	5.03 (0.86)	4.44 (0.99)	4.78 (0.88)	5.19 (0.47)
<b>JCS</b>				
Increasing social job resources	17.18 (3.92)	16.73 (3.49)	17.39 (3.18)	19.67 (3.24)
Increasing structural job resources	22.27 (1.55)	21.14 (2.27)	20.97 (2.17)	22.42 (1.94)
Increasing challenging job demands	17.68 (3.43)	17.45 (3.60)	17.12 (2.88)	19.73 (2.25)
Decreasing hindering job demands	22.00 (8.19)	19.50 (3.79)	19.36 (3.98)	21.45 (4.91)
<b>JDRS</b>				
Growth opportunities	61.77 (7.93)	54.86 (7.74)	56.36 (6.58)	60.58 (6.77)
Organisational support	23.09 (3.07)	20.64 (4.36)	21.67 (3.20)	22.88 (3.47)
Advancement	23.86 (5.11)	21.50 (4.39)	23.09 (4.04)	23.21 (5.07)
Overload	24.55 (2.60)	25.14 (3.12)	23.73 (2.07)	24.67 (2.94)
Job insecurity	8.59 (2.75)	8.45 (2.56)	8.36 (2.42)	8.09 (2.64)

*Note.* Data are means, with standard deviations in brackets. UWES-17 = Utrecht Work Engagement Scale, 17-item version; JCS = Job Crafting Scale; JDRS = Job Demands-Resources Scale.

## 4.5 Hypothesis Testing

### 4.5.1 Hypothesis 1

This hypothesis stated that levels of work engagement (as indexed by UWES-17 measures of vigour, dedication, and absorption) will:

(a) Statistically significantly increase from pre- to post-intervention in the Intervention group but not in the Control group, and

(b) Be statistically significantly higher at post-intervention in the Intervention group than in the Control group.

Table 4

*Repeated-Measures ANOVA: Change in UWES-17 scores from pre- to post-intervention in the two groups (N = 55)*

Subscale / Effect	<i>F</i>	<i>p</i>	ESE
<b>Vigour</b>			
Time	0.53	.47	.01
Group	1.25	.27	.02
Time x Group	14.86	< .001***	.22
<b>Dedication</b>			
Time	1.79	.19	.03
Group	1.51	.22	.03
Time x Group	8.06	.006**	.13
<b>Absorption</b>			
Time	0.97	.33	.02
Group	1.80	.19	.03
Time x Group	10.79	.002**	.17

*Note.* UWES-17 = Utrecht Work Engagement Scale, 17-item version; ESE = effect size estimate (in this case, partial eta squared,  $\eta_p^2$ ). Degrees of freedom were (1, 53) for each test. \* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ . All  $p$ -values are two-tailed.

The first part of this hypothesis was confirmed. As Table 4 shows, analyses detected a significant Time (pre-intervention, post-intervention) x Group (intervention, control) interaction effect on Vigour, Dedication, and Absorption, with the order of means (see Table 3) suggesting, in each case, that whereas scores for Intervention-group participants increased from pre- to post-intervention, scores for Control-group participants decreased.

The second part of this hypothesis was also confirmed. A series of independent-samples  $t$ -tests indicated that (a) the post-intervention Vigour score for participants in the Intervention group was, on average, significantly higher than that for participants in the Control group,  $t(32.07) = 3.11$ ,  $p = .002$  (one-tailed), (b) the post-intervention Dedication score for participants in the Intervention group was, on average, significantly higher than that for participants in the Control group,  $t(29.63) = 2.49$ ,  $p = .009$  (one-tailed), and (c) the post-

intervention Absorption score for participants in the Intervention group was, on average, significantly higher than that for participants in the Control group,  $t(31.68) = 3.02, p = .002$  (one-tailed).

#### 4.5.2 Hypothesis 2

This hypothesis stated that levels of job crafting (as indexed by JCS measures of increasing social resources, increasing structural job resources, increasing challenging job demands, and decreasing hindering job demands) will:

- (a) Statistically significantly increase from pre- to post-intervention in the Intervention group but not in the Control group, and
- (b) Be statistically significantly higher at post-intervention in the Intervention group than in the Control group.

Table 5  
*Repeated-Measures ANOVA: Change in JCS scores from pre- to post-intervention in the two groups (N = 55)*

Subscale / Effect tested	<i>F</i>	<i>p</i>	ESE
<b>Increasing Social Job Resources</b>			
Time	2.79	.10	.05
Group	5.11	.03*	.09
Time x Group	4.51	.04*	.08
<b>Increasing Structural Job Resources</b>			
Time	0.34	.56	.01
Group	0.05	.83	.001
Time x Group	11.73	.001**	.18
<b>Increasing Challenging Job Demands</b>			
Time	7.23	.01*	.12
Group	0.61	.44	.01
Time x Group	6.36	.02*	.11
<b>Decreasing Hindering Job Demands</b>			
Time	0.01	.94	< .001
Group	0.06	.81	.001
Time x Group	6.26	.02*	.11

*Note.* JCS = Job Crafting Scale; ESE = effect size estimate (in this case, partial eta squared,  $\eta_p^2$ ). Degrees of freedom were (1, 53) for each test.

\* $p < .05$ . \*\* $p < .01$ . All  $p$ -values are two-tailed.

The first part of this hypothesis was confirmed. As Table 5 shows, analyses detected a significant Time (pre-intervention, post-intervention) x Group (intervention, control) interaction effect on Increasing Social Job Resources, Increasing Structural Job Resources, Increasing Challenging Job Demands, and Decreasing Hindering Job Demands, with the order of means (see Table 3) suggesting, in each case, that whereas scores for Intervention-group participants increased from pre- to post-intervention, scores for Control-group participants decreased.

The second part of this hypothesis was partially confirmed. A series of independent-samples *t*-tests indicated that (a) the post-intervention Increasing Social Job Resources score for participants in the Intervention group was, on average, significantly higher than that for participants in the Control group,  $t(53) = 3.20$ ,  $p = .001$  (one-tailed), and (b) the post-intervention Increasing Structural Job Resources score for participants in the Intervention group was, on average, significantly higher than that for participants in the Control group,  $t(53) = 2.25$ ,  $p = .014$  (one-tailed). For both Increasing Challenging Job Demands and Decreasing Hindering Job Demands, scores for participants in the Intervention group trended strongly towards being significantly higher than those for participants in the Control group,  $t(26.64) = 1.71$ ,  $p = .05$  (one-tailed), and  $t(53) = 1.57$ ,  $p = .06$  (one-tailed), respectively.

Regarding the significant main effect of Group on Increasing Social Job Resources, this reflects the observation that, on average across the two measurement occasions, scores of Intervention-group participants were higher than those of Control-group participants.

Regarding the main effect of Time on Increasing Challenging Job Demands, this reflects the observation that, across groups and on average, post-intervention scores were higher than pre-intervention scores. Neither of these findings challenges the a priori predictions; indeed, both of them are driven by the fact that post-intervention scores of Intervention-group participants were so much higher than all other scores in the set (see Table 3).

### 4.5.3 Hypothesis 3

This hypothesis stated that levels of JDRS-measured growth opportunities, organisational support, and advancement will:

- (a) Statistically significantly increase from pre- to post-intervention in the Intervention group but not in the Control group, and
- (b) Be statistically significantly higher at post-intervention in the Intervention group than in the Control group.



Table 6

*Repeated-Measures ANOVA: Change in three JDRS scores from pre- to post-intervention in the two groups (N = 55)*

Subscale / Effect tested	<i>F</i>	<i>p</i>	ESE
<b>Growth Opportunities</b>			
Time	2.22	.14	.04
Group	0.04	.85	.001
Time x Group	38.74	< .001***	.42
<b>Organisational Support</b>			
Time	1.21	.28	.02
Group	0.23	.63	.004
Time x Group	8.73	.005**	.14
<b>Advancement</b>			
Time	1.45	.24	.03
Group	0.17	.68	.003
Time x Group	1.54	.22	.03

*Note.* JDRS = Job Demands-Resources Scale; ESE = effect size estimate (in this case, partial eta squared,  $\eta_p^2$ ). Degrees of freedom were (1, 53) for each test.

\* $p < .05$ . \*\* $p < .01$ . \*\*\* $p < .001$ . All  $p$ -values are two-tailed.

The first part of this hypothesis was partially confirmed. As Table 6 shows, analyses detected a significant Time (pre-intervention, post-intervention) x Group (intervention, control) interaction effect on Growth Opportunities and Organisational Support, with the order of means (see Table 3) suggesting, in each case, that whereas scores for Intervention-group participants increased from pre- to post-intervention, scores for Control-group participants decreased. The analysis did not detect a significant interaction effect on Advancement, however.

The second part of this hypothesis was also partially confirmed. A series of independent-samples  $t$ -tests indicated that (a) the post-intervention Growth Opportunities score for participants in the Intervention group was, on average, significantly higher than that for participants in the Control group,  $t(53) = 2.96$ ,  $p = .003$  (one-tailed), and (b) the post-intervention Organisational Support score for participants in the Intervention group was, on average, significantly higher than that for participants in the Control group,  $t(53) = 2.04$ ,  $p = .02$  (one-tailed). A similar analysis detected no significant between-group differences with regards to post-intervention Advancement scores, however,  $t(53) = 1.02$ ,  $p = .16$  (one-tailed).

#### 4.5.4 Hypothesis 4

This hypothesis stated that levels of JDRS-measured work overload and job security will:

- (a) Statistically significantly decrease from pre- to post-intervention in the Intervention group but not in the Control group, and
- (b) Be statistically significantly lower at post-intervention in the Intervention group than in the Control group.

Table 7

*Repeated-Measures ANOVA: Change in two JDRS scores from pre- to post-intervention in the two groups (N = 55)*

Subscale / Effect tested	<i>F</i>	<i>p</i>	ESE
Overload			
Time	3.82	.06	.07
Group	0.95	.33	.02
Time x Group	0.03	.86	.001
Job Insecurity			
Time	0.06	.81	.001
Group	0.33	.57	.01
Time x Group	0.17	.68	.003

*Note.* JDRS = Job Demands-Resources Scale; ESE = effect size estimate (in this case, partial eta squared,  $\eta_p^2$ ). Degrees of freedom were (1, 53) for each test. All *p*-values are two-tailed.

Both the first and second parts of this hypothesis were disconfirmed. As Table 7 shows, analyses detected no significant main or interaction effects with regards to either Overload or Job Insecurity. Independent-samples *t*-tests detected no significant between-group differences with regards to post-intervention Overload scores,  $t(53) = -0.57$ ,  $p = .29$  (one-tailed), and to post-intervention Job Insecurity scores,  $t(53) = -0.69$ ,  $p = .25$  (one-tailed).

#### 4.5.5 Hypothesis 5

This hypothesis stated that, in the Intervention group (but not in the Control group), there will be a statistically significant positive correlation between pre- to post-intervention changes in the JCS indices (increasing social job resources, increasing structural job resources, increasing challenging job demands, and decreasing hindering job demands) and pre-to post-

intervention changes in the JDRS indices of growth opportunities, organisational support, and advancement.



Table 8

*Correlation Matrix, Intervention Group: JCS subscales and three JDRS subscales (N = 33)*

JDRS Subscale	JCS Subscale			
	Increasing Social Job Resources	Increasing Structural Job Resources	Increasing Challenging Job Demands	Decreasing Hindering Job Demands
Growth Opportunities	<b>.43 (.01)*</b>	.18 (.31)	.25 (.15)	.06 (.76)
Organisational Support	.22 (.22)	.20 (.26)	<b>.49 (.004)**</b>	-.24 (.18)
Advancement	-.22 (.22)	-.06 (.75)	.14 (.44)	.16 (.37)

*Note.* Data are Pearson's  $r$  correlation coefficients, with associated  $p$ -values in brackets. JCS = Job Crafting Scale; JDRS = Job Demands-Resources Scale. Statistically significant  $p$ -values are highlighted in boldface font.

\* $p < .05$ . \*\* $p < .01$ .

Table 9

*Correlation Matrix, Control Group: JCS subscales and three JDRS subscales (N = 22)*

JDRS Subscale	JCS Subscale			
	Increasing Social Job Resources	Increasing Structural Job Resources	Increasing Challenging Job Demands	Decreasing Hindering Job Demands
Growth Opportunities	.09 (.69)	-.07 (.78)	-.20 (.38)	-.02 (.95)
Organisational Support	.10 (.67)	-.05 (.82)	-.15 (.51)	.06 (.80)
Advancement	-.023 (.92)	<b>-.56 (.007)**</b>	.01 (.98)	.39 (.08)

*Note.* Data are Pearson's  $r$  correlation coefficients, with associated  $p$ -values in brackets. JCS = Job Crafting Scale; JDRS = Job Demands-Resources Scale. Statistically significant  $p$ -values are highlighted in boldface font.

\* $p < .05$ . \*\* $p < .01$ .

The hypothesis received scant support from the Intervention group data. Within that group, the analysis detected only two positive associations: between JCS Increasing Social Job Resources and JDRS Growth Opportunities, and between JCS Increasing Challenging Job Demands and JDRS Organisational Support (see Table 8). Within the Control group, however, the data followed the predicted patterns: The analysis detected no statistically significant positive correlations (the only significant association, between JCS Increasing Structural Job Resources and JDRS Advancement, was in the negative direction; see Table 9).

#### **4.5.6 Hypothesis 6**

This hypothesis stated that, in the Intervention group (but not in the Control group), there will be a statistically significant negative correlation between pre- to post-intervention changes in the JCS indices (increasing social job resources, increasing structural job resources, increasing challenging job demands, and decreasing hindering job demands) and pre-to post-intervention changes in the JDRS indices of overload and job insecurity.

With regards to the Intervention group, the hypothesis was disconfirmed: Within that group, the analysis detected no significant associations between the subscale scores under consideration (see Table 10). Within the Control group, however, the data followed the predicted pattern: The analysis detected no statistically significant positive correlations (see Table 11).

Table 10

*Correlation Matrix, Intervention Group: JCS subscales and two JDRS subscales (N = 33)*

JDRS Subscale	JCS Subscale			
	Increasing Social Job Resources	Increasing Structural Job Resources	Increasing Challenging Job Demands	Decreasing Hindering Job Demands
Overload	-.23 (.19)	.23 (.20)	.08 (.67)	-.07 (.72)
Job Insecurity	.06 (.74)	-.17 (.36)	.04 (.82)	.29 (1.00)

*Note.* Data are Pearson's  $r$  correlation coefficients, with associated  $p$ -values in brackets. JCS = Job Crafting Scale; JDRS = Job Demands-Resources Scale.

Table 11

*Correlation Matrix, Control Group: JCS subscales and two JDRS subscales (N = 22)*

JDRS Subscale	JCS Subscale			
	Increasing Social Job Resources	Increasing Structural Job Resources	Increasing Challenging Job Demands	Decreasing Hindering Job Demands
Overload	-.08 (.71)	-.32 (.15)	.01 (.96)	-.03 (.89)
Job Insecurity	-.25 (.27)	-.23 (.31)	.06 (.81)	.26 (.24)

*Note.* Data are Pearson's  $r$  correlation coefficients, with associated  $p$ -values in brackets. JCS = Job Crafting Scale; JDRS = Job Demands-Resources Scale.

#### 4.5.7 Hypothesis 7

This hypothesis stated that, in the Intervention group (but not in the Control group), there will be a statistically significant positive correlation between pre- to post-intervention changes in the JCS indices (increasing social job resources, increasing structural job resources, increasing challenging job demands, and decreasing hindering job demands) and pre-to post-intervention changes in the UWES-17 indices (vigour, dedication, and absorption).

The hypothesis received partial confirmation from the Intervention group data. Within that group, the analysis detected four positive associations: between UWES-17 Absorption and JCS Increasing Social Job Resources, Increasing Structural Job Resources, and Increasing Challenging Job Demands, and between UWES-17 Vigour and JCS Increasing Challenging Job Demands (see Table 12).

The hypothesis received partial disconfirmation from the Control group data. Within that group, the analysis detected two unpredicted positive associations: between JCS Increasing Structural Job Resources and two UWES-17 subscales, Dedication and Absorption (see Table 13).

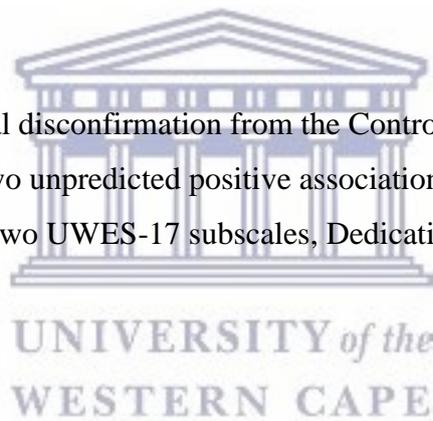


Table 12

*Correlation Matrix, Intervention Group: JCS and UWES-17 subscales (N = 33)*

UWES-17 Subscale	JCS Subscale			
	Increasing Social Job Resources	Increasing Structural Job Resources	Increasing Challenging Job Demands	Decreasing Hindering Job Demands
Vigour	.31 (.08)	.20 (.27)	<b>.46 (.007)**</b>	-.005 (.98)
Dedication	.23 (.20)	.20 (.26)	.34 (.06)	.01 (.95)
Absorption	<b>.40 (.02)*</b>	<b>.38 (.03)*</b>	<b>.36 (.04)*</b>	.17 (.36)

*Note.* Data are Pearson's  $r$  correlation coefficients, with associated  $p$ -values in brackets. JCS = Job Crafting Scale; UWES-17 = Utrecht Work Engagement Scale, 17-item version. Statistically significant  $p$ -values are highlighted in boldface font.

\* $p < .05$ . \*\* $p < .01$ .

Table 13

*Correlation Matrix, Control Group: JCS and UWES-17 subscales (N = 22)*

UWES-17 Subscale	JCS Subscale			
	Increasing Social Job Resources	Increasing Structural Job Resources	Increasing Challenging Job Demands	Decreasing Hindering Job Demands
Vigour	.04 (.85)	.41 (.06)	.06 (.80)	-.13 (.56)
Dedication	.09 (.69)	<b>.50 (.02)*</b>	.26 (.24)	-.25 (.26)
Absorption	.23 (.31)	<b>.57 (.005)**</b>	.26 (.25)	-.03 (.88)

*Note.* Data are Pearson's  $r$  correlation coefficients, with associated  $p$ -values in brackets. JCS = Job Crafting Scale; UWES-17 = Utrecht Work Engagement Scale, 17-item version. Statistically significant  $p$ -values are highlighted in boldface font.

\* $p < .05$ . \*\* $p < .01$ .

#### 4.5.8 Hypothesis 8

This hypothesis stated that, in the Intervention group (but not in the Control group), there will be a statistically significant positive correlation between pre- to post-intervention changes in the JDRS indices of growth opportunities, organisational support, and advancement and pre- to post-intervention changes in the UWES-17 indices (vigour, dedication, and absorption).

With regards to the Intervention group, the hypothesis was disconfirmed: Within that group, the analysis detected no significant associations between the subscale scores under consideration (see Table 14). Within the Control group, however, the data followed the predicted pattern: The analysis detected no statistically significant positive correlations (see Table 15).



Table 14

*Correlation Matrix, Intervention Group: Three JDRS subscales and UWES-17 subscales (N = 33)*

UWES-17 Subscale	JDRS Subscale		
	Growth Opportunities	Organisational Support	Advancement
Vigour	.22 (.21)	.27 (.12)	-.12 (.47)
Dedication	.30 (.09)	.13 (.48)	-.13 (.48)
Absorption	.31 (.08)	.17 (.33)	-.26 (.15)

*Note.* Data are Pearson's  $r$  correlation coefficients, with associated  $p$ -values in brackets.

JDRS = Job Demands-Resources Scale; UWES-17 = Utrecht Work Engagement Scale, 17-item version.

Table 15

*Correlation Matrix, Control Group: Three JDRS subscales and UWES-17 subscales (N = 22)*

UWES-17 Subscale	JDRS Subscale		
	Growth Opportunities	Organisational Support	Advancement
Vigour	.36 (.09)	.26 (.25)	.06 (.81)
Dedication	.34 (.12)	.34 (.12)	-.12 (.60)
Absorption	.18 (.43)	.14 (.53)	.04 (.87)

*Note.* Data are Pearson's  $r$  correlation coefficients, with associated  $p$ -values in brackets.

JDRS = Job Demands-Resources Scale; UWES-17 = Utrecht Work Engagement Scale, 17-item version.

#### 4.5.9 Hypothesis 9

This hypothesis stated that, in the Intervention group (but not in the Control group), there will be a statistically significant negative correlation between pre- to post-intervention changes in the JDRS indices of overload and job insecurity and pre- to post-intervention changes in the UWES-17 indices (vigour, dedication, and absorption).

With regards to the Intervention group, the hypothesis was disconfirmed: Within that group, the analysis detected no significant associations between the subscale scores under consideration (see Table 16). Within the Control group, however, the data followed the predicted pattern: The analysis detected no statistically significant positive correlations (see Table 17).



Table 16

*Correlation Matrix, Intervention Group: Two JDRS subscales and UWES-17 subscales (N = 33)*

UWES-17 Subscale	JDRS Subscale	
	Overload	Job Insecurity
Vigour	.01 (.96)	-.12 (.51)
Dedication	-.01 (.94)	-.04 (.85)
Absorption	-.08 (.64)	-.12 (.52)

*Note.* Data are Pearson's  $r$  correlation coefficients, with associated  $p$ -values in brackets.  
 JDRS = Job Demands-Resources Scale; UWES-17 = Utrecht Work Engagement Scale, 17-item version.

Table 17

*Correlation Matrix, Control Group: Two JDRS subscales and UWES-17 subscales (N = 22)*

UWES-17 Subscale	JDRS Subscale	
	Overload	Job Insecurity
Vigour	.12 (.38)	.24 (.29)
Dedication	.34 (.13)	.02 (.92)
Absorption	-.02 (.93)	.11 (.62)

*Note.* Data are Pearson's  $r$  correlation coefficients, with associated  $p$ -values in brackets.  
 JDRS = Job Demands-Resources Scale; UWES-17 = Utrecht Work Engagement Scale, 17-item version.

## 4.6 Conclusion

This chapter presented an objective account of the study's results, using descriptive and inferential statistical analyses to describe the complete set of outcomes. These analyses allowed the researcher to identify significant relationships between the variables under consideration, to test the complete set of nine hypotheses, and, ultimately, to draw inferences about whether the job crafting intervention was successful.



## Chapter 5: Discussion, Recommendations, and Conclusion

### 5.1 Introduction

The primary purpose of this chapter is to summarise and critically examine the study's results, as described in Chapter 4. Hence, the status of each hypothesis (i.e., confirmed or disconfirmed) will be stated, with each statement followed by a brief note about how that finding compares to those of previous research studies. Thereafter, a sub-section will be devoted to an overall evaluation of the study's findings, with a particular emphasis on (a) how the current results compare to those from previous job crafting intervention studies, and (b) an attempt to account for discrepancies between the current findings and those from previously published studies. Finally, the chapter will present an outline of the study's limitations, and will provide recommendations for future research will also be included.

### 5.2 Overview: Status of each hypothesis

The overall objective of this study was to evaluate the effectiveness of a job crafting intervention in improving levels of employee work engagement by decreasing job demands and increasing job resources. To accomplish this objective, the study used a quantitative quasi-experimental research design. Participants (Intervention group  $n = 33$ , Control group  $n = 22$ ) were sampled from the employee pool of the Western Cape division of a national construction company. The intervention consisted of a training workshop, a personal job crafting plan, and reflective exercises, all following those described by Van den Heuvel et al. (2012). Participants completed outcome measures (three self-report questionnaires: the Job Crafting Scale, the Job Demands-Resources Scale, and the Utrecht Work Engagement Scale, 17-item version) before and after implementation of the intervention.

### 5.2.1 Hypothesis 1

The first part of this hypothesis stated that levels of work engagement (as indexed by UWES-17 measures of vigour, dedication, and absorption) will statistically significantly increase from pre- to post-intervention in the Intervention group but not in the Control group. This part of the hypothesis was confirmed. Analyses detected a significant Time (pre-intervention, post-intervention) x Group (intervention, control) interaction effect on each of the UWES-17 Vigour, Dedication, and Absorption subscale scores. In each case, subscale scores for Intervention-group participants increased, but scores for Control-group participants decreased, from pre- to post-intervention.

The second part of this hypothesis stated that levels of work engagement (again, as indexed by UWES-17 measures of vigour, dedication, and absorption) will be statistically significantly higher at post-intervention in the Intervention group than in the Control group. This part of the hypothesis was also confirmed. Analyses indicated that post-intervention Vigour, Dedication, and Absorption scores for participants in the Intervention group were, on average, significantly higher than those for participants in the Control group.

This result is consistent with several previous studies describing a strong positive relationship between increased employee involvement in job crafting activities and improved work engagement (see, e.g., Bakker et al., 2012; Nell, 2015; Tims et al., 2013; Wrzesniewski & Dutton, 2001). In one of the more recent (using, as do most studies in this area, a cross-sectional research design), Mislum (2015) reported that employees of an international airport operator ( $N = 88$ ) who reported a high level of job crafting behaviour had higher levels of work engagement. Furthermore, the present results are consistent with those from similarly-designed job crafting intervention studies (van Mersbergen, 2012; Van Wingerden, Derks, et al., 2017). For instance, van Mersbergen (2012) reported that, at a post-intervention measurement, hospital nurses exposed to the intervention ( $n = 32$ ) showed significant change from pre-intervention, and scored higher than unexposed controls ( $n = 26$ ), on UWES-derived measures of work engagement.

### 5.2.2 Hypothesis 2

The first part of this hypothesis stated that levels of job crafting (again, as indexed by JCS measures of increasing social resources, increasing structural job resources, increasing challenging job demands, and decreasing hindering job demands) will statistically significantly increase from pre- to post-intervention in the Intervention group but not in the Control group. This part of this hypothesis was confirmed. Analyses detected a significant Time (pre-intervention, post-intervention) x Group (intervention, control) interaction effect on each of the JCS Increasing Social Job Resources, Increasing Structural Job Resources, Increasing Challenging Job Demands, and Decreasing Hindering Job Demands subscale scores. In each case, subscale scores for Intervention-group participants increased, but scores for Control-group participants decreased, from pre- to post-intervention.

The second part of this hypothesis stated that levels of job crafting (as indexed by JCS measures of increasing social job resources, increasing structural job resources, increasing challenging job demands, and decreasing hindering job demands) will be statistically significantly higher at post-intervention in the Intervention group than in the Control group. This part of this hypothesis was partially confirmed. Analyses indicated that post-intervention Increasing Social Job Resources and Increasing Structural Job Resources scores for participants in the Intervention group were, on average, significantly higher than those for participants in the Control group. Although post-intervention scores for the other two JCS subscales (Increasing Challenging Job Demands and Decreasing Hindering Job Demands) tended strongly toward being higher for participants in the Intervention group than for participants in the Control group, the magnitude of average difference did not reach statistical significance.

Again, this result is consistent with data presented by van Mersbergen (2012). She showed, using a modified version of the JCS (Petrou et al., 2012), that nurses exposed to the intervention (but not those in the unexposed control group) showed significant changes from pre- to post-intervention on variables reflecting increasing job resources and decreasing job demands. However, in contrast to the results of the present study, Van Wingerden, Derks, et al. (2017) found that primary school teachers exposed to an intervention ( $n = 32$ ) showed

significantly increased post-intervention scores on the JCS Increasing Challenging Job Demands and Decreasing Hindering Job Demands subscales, but not on the Increasing Social Job Resources and Increasing Structural Job Resources subscales.

One possible explanation for the contradictory findings across studies could relate to the context and setting of the research. As mentioned in Chapter 1, the construction industry's deadline-driven nature may influence the ability to mitigate job demands. This could explain why respondents in the current study may have engaged more fervently in increasing social and structural resources to buffer the effects of job demands. Although not empirically tested, the researcher experienced improved communication as one of the key outcomes of the job crafting intervention. Such improved communication can be seen as an interpersonal level job resource (Schaufeli & Bakker, 2004) where employees experience support from colleagues.

### 5.2.3 Hypotheses 3-6

Hypotheses 3, 4, 5, and 6 will be discussed together in this section because each considered the dimensions of job demands and job resources, and because there is little previous literature utilising the same conceptualisation of the variables used in the present study.

The first part of Hypothesis 3 stated that levels of JDRS-measured growth opportunities, organisational support, and advancement will statistically significantly increase from pre- to post-intervention in the Intervention group but not in the Control group. This part of the hypothesis was partially confirmed. Analyses detected a significant Time (pre-intervention, post-intervention) x Group (intervention, control) interaction effect on JDRS Growth Opportunities and Organisational Support (but not Advancement) scores. In each of the former two cases, scores for Intervention-group participants increased, but scores for Control-group participants decreased, from pre- to post-intervention. The second part of this hypothesis stated that levels of JDRS-measured growth opportunities, organisational support, and advancement will be statistically significantly higher at post-intervention in the Intervention group than in the Control group. This part of the hypothesis was also partially confirmed. Analyses indicated that post-intervention Growth Opportunities and

Organisational Support scores (but not Advancement scores) for participants in the Intervention group were, on average, significantly higher than those for participants in the Control group.

Hypothesis 4 stated that levels of JDRS-measured work overload and job insecurity will (a) statistically significantly decrease from pre- to post-intervention in the Intervention group but not in the Control group, and (b) be statistically significantly lower at post-intervention in the Intervention group than in the Control group. Both parts of the hypothesis were disconfirmed. Analyses detected (a) no significant main or interaction effects with regards to either JDRS Overload or Job Insecurity, and (b) no significant between-group differences with regards to post-intervention JDRS Overload or Job Insecurity scores.

Hypothesis 5 stated that, in the Intervention group (but not in the Control group), there will be a statistically significant positive correlation between pre- to post-intervention changes in the JCS indices (increasing social job resources, increasing structural job resources, increasing challenging job demands, and decreasing hindering job demands) and pre-to post-intervention changes in the JDRS indices of growth opportunities, organisational support, and advancement. The hypothesis was partially confirmed. Within the Intervention group data, the analysis detected two positive associations: between JCS Increasing Social Job Resources and JDRS Growth Opportunities, and between JCS Increasing Challenging Job Demands and JDRS Organisational Support. Within the Control group data, however, the analysis detected no statistically significant positive correlations, thus confirming the a priori prediction.

Hypothesis 6 stated that, in the Intervention group (but not in the Control group), there will be a statistically significant negative correlation between pre- to post-intervention changes in the JCS indices (increasing social job resources, increasing structural job resources, increasing challenging job demands, and decreasing hindering job demands) and pre-to post-intervention changes in the JDRS indices of overload and job insecurity. The most important aspect of this hypothesis was disconfirmed: Within the Intervention group data, the analysis detected no significant associations between the subscale scores under consideration. Within

the Control group data, however, the analysis detected no statistically significant positive correlations, thus confirming the a priori prediction.

Although the results associated with the tests of Hypotheses 3-6 are mixed, they provide some evidence for the positive impact of aspects of a job crafting intervention on changing the availability of job resources and the presence of job demands (as measured, specifically, by the JDRS Growth Opportunities and Organisational Support variables) to the employee. This result is consistent with several previous studies suggesting that a key component of an employees' job crafting activity is finding ways to increase structural and social job resources and decrease hindering job demands (see, e.g., Rudolph, Katz, Lavigne, & Zacher, 2017; Tims & Bakker, 2010; van den Heuvel, Demerouti, & Peeters, 2015). In one of the more recent (cross-sectional) examples from the literature, Nell (2015) reported, based on survey data from 311 nurses employed within a private-sector hospital group, a statistically significant and positive relationship between involvement in job crafting activities, as measured by the JCS, and job resources, as measured by the JDRS. Although no job crafting intervention study has used the same JCS and JDRS measures as the present study, numerous longitudinal studies suggest, either directly or indirectly, that increased engagement in job crafting activities can lead to positive changes in the balance of job demands and resources (see, e.g., Gordon et al., 2018; Petrou et al., 2012; Tims et al., 2013; Van Wingerden, Derks, et al., 2017).

#### **5.2.4 Hypothesis 7**

This hypothesis stated that, in the Intervention group (but not in the Control group), there will be a statistically significant positive correlation between pre- to post-intervention changes in the JCS indices (increasing social job resources, increasing structural job resources, increasing challenging job demands, and decreasing hindering job demands) and pre-to post-intervention changes in the UWES-17 indices (vigour, dedication, and absorption). The hypothesis was partially confirmed. Within the Intervention group data, the analysis detected positive associations between UWES-17 Absorption and JCS Increasing Social Job Resources, Increasing Structural Job Resources, and Increasing Challenging Job Demands, and between UWES-17 Vigour and JCS Increasing Challenging Job Demands. Within the

Control group data, however, the analysis detected two unpredicted positive associations (between JCS Increasing Structural Job Resources and UWES-17 Dedication and Absorption).

As noted earlier (see section 5.2.1), this result is consistent with several previous studies describing a strong positive relationship between increased employee involvement in job crafting activities and improved work engagement (see, e.g., Bakker et al., 2012; Nell, 2015; Tims et al., 2013; Wrzesniewski & Dutton, 2001). In a meta-analysis of 122 independent studies ( $N = 35\ 670$  workers), Rudolph et al. (2017) found that proactive work behaviour, as encapsulated by job crafting activities, bore a strong positive relationship to work engagement. Of further note here is that the currently observed lack of significant associations involving the JCS Decreasing Hindering Job Demands variable is consistent with the findings of that meta-analysis. Specifically, on the basis of their findings Rudolph and colleagues suggest that “the decreasing hindering job demands dimension appears to differ markedly from the other three job crafting dimensions, and this observation deserves further attention in future research” (2017, p. 131).

### **5.2.5 Hypothesis 8**

This hypothesis stated that, in the Intervention group (but not in the Control group), there will be a statistically significant positive correlation between pre- to post-intervention changes in the JDRS indices of growth opportunities, organisational support, and advancement and pre- to post-intervention changes in the UWES-17 indices (vigour, dedication, and absorption). The most important aspect of this hypothesis was disconfirmed: Within the Intervention group data, the analysis detected no significant associations between the subscale scores under consideration. Within the Control group data, however, the analysis detected no statistically significant positive correlations, thus confirming the a priori prediction.

An evaluation of the results of this hypothesis test against extant literature is presented in sub-section 5.2.9 (Hypothesis 9).

### 5.2.6 Hypothesis 9

This hypothesis stated that, in the Intervention group (but not in the Control group), there will be a statistically significant negative correlation between pre- to post-intervention changes in the JDRS indices of overload and job insecurity and pre- to post-intervention changes in the UWES-17 indices (vigour, dedication, and absorption). Again, the most important aspect of this hypothesis was disconfirmed: Within the Intervention group data, the analysis detected no significant associations between the subscale scores under consideration. Within the Control group data, however, the analysis detected no statistically significant positive correlations, thus confirming the a priori prediction.

Although a sizable literature on JD-R theory (see, e.g., Mäkikangas, Bakker, & Schaufeli, 2017; Van Wingerden, Bakker, & Derks, 2017) suggests that changes in the balance of job demands and resources should have an impact on work engagement (alongside, of course, self- and other-rated job performance, and other important employment outcome variables), this is not the first study to report data featuring an absence of a significant relationship between the two. For instance, Fruwert (2014) reported that, after a 1-week job crafting intervention, both personal and social resources increased in her sample ( $N = 214$  Dutch academic researchers), but that these increases were accompanied by an increase in negative feelings about work (e.g., heightened psychological distress) and by no significant increase in work engagement, as measured by a short form of the UWES (Schaufeli et al., 2006).

One way to account for these negative results might be to examine ways in which specific characteristics of particular jobs (e.g., those in academia versus those in a private sector hospital) might affect the predictions made by JD-R theory. A complementary account might centre on the fact that the effects of job demands and resources on work engagement might require time to develop, particularly because within certain employment situations work engagement is fairly stable and difficult to shift using a brief intervention (Victor & Hoole, 2017; Xanthopoulou et al., 2009). Furthermore, some work environments might feature structural job demands (e.g., long working hours) that may simultaneously be (a) outside of the authoritative scope of the employee (and therefore be immune to any form of traditional job crafting intervention) and (b) closely associated with levels of work engagement.

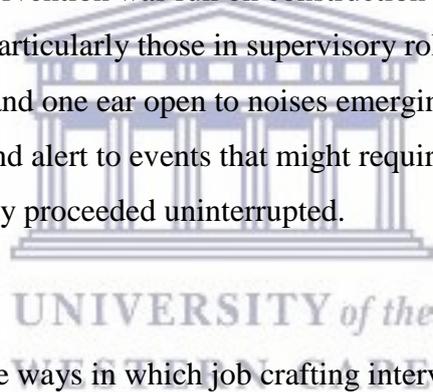
### 5.3 Overall Summary, Critical Reflections, and Future Research Directions

Overall, the current findings sit comfortably and consistently alongside a relatively rich literature which suggests that employees who take a proactive role in crafting their job-related tasks and environments will be more engaged in their work (see, e.g., Nell, 2015; Petrou et al., 2012; Tims et al., 2013). More specifically, the present study adds to a growing body of literature indicating that even brief job crafting interventions can have positive effects on the number of job crafting behaviours in which employees engage, and on discrete dimensions of work engagement (van Mersbergen, 2012; Van Wingerden, Derks, et al., 2017) (but see van den Heuvel et al., 2015).

The current findings did not, however, confirm the a priori conjecture that the relationship between changes in job crafting behaviours and changes in work engagement are mediated by changes in the balance of job demands to job resources. Although such a mediating relationship is based on principles derived from Job Demands-Resources theory (Bakker & Demerouti, 2007, 2014; Demerouti et al., 2001), and although numerous empirical studies have confirmed many of the tenets of that theory (see, e.g., Bakker & Demerouti, 2017; van den Heuvel et al., 2015; van Wingerden, Bakker, & Derks, 2016), the current analyses (a) only partially confirmed that changes in job crafting behaviours were associated with changes in job demands and resources, and (b) detected no significant relationship between changes in job demands and resources and changes in levels of the primary outcome variable, work engagement. In summary, then, one might suggest that participants in the Intervention group benefitted in that they began crafting their jobs more proactively, and in that they became more engaged in their work, but one must stop short of attributing those improvements to increasing social or structural job resources, or to decreasing hindering job demands or increasing challenging job demands.

Bearing in mind the current results and how they fit with the general patterns of data established by the extant literature, one might offer these reflections on intervention itself.

Firstly, the researcher's experience was that the group discussion portions of the intervention, and the reflection exercise in particular, were valuable in allowing participants to share specific aspects of job-related problems, and to receive input from others regarding potential solutions. Secondly, the intervention allowed participants the rare opportunity, in the fast-paced world of the construction industry, to reflect upon their future plans and to set goals that extended beyond the immediate short-term. Thirdly, the scope of the intervention's effects was constrained, unavoidably, by the nature of the jobs the participants held. For instance, some participants remarked on the fact that they could not undertake certain modifications to their work environments or to their task responsibilities because they did not have the authority or autonomy to do so (e.g., they had to be cautious about not making decisions without their superior's input, or they would have had to make modifications to others' roles in order to effect the change they desired) – this even though they were confident the modifications would have improved their levels of work engagement. Relatedly, the fact that the intervention was run on construction sites, during the work day, meant that these employees (particularly those in supervisory roles) always had one eye on their communication devices and one ear open to noises emerging from the site. In effect, they were constantly on call and alert to events that might require their intervention, meaning that intervention sessions rarely proceeded uninterrupted.

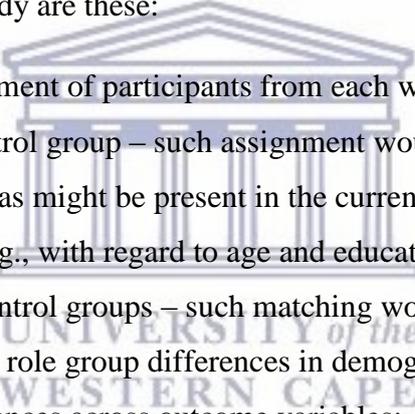


These reflections suggest some ways in which job crafting interventions for construction company employees might be tailored. Firstly, one might consider employing team job crafting alongside individual job crafting. In this context, a team-level intervention (as described, for instance, by McClelland, Leach, Clegg, & McGowan, 2014) might allow a focus on changing structural job demands (e.g., working hours), and on modifying team tasks so that each team member's role can change in concert with that of his/her colleagues. Secondly, and from a more practical perspective, any job crafting intervention introduced to employees of a construction company should probably be run off-site, and at a time when employees do not have urgent competing demands (e.g., when they are close to completing a job, and the work only requires minor finishes). Thirdly, any evaluation of this tailored intervention should include a wider range of outcome measures than the sole work engagement measure used here. Previously published job crafting intervention studies (e.g., van den Heuvel et al., 2015; van Mersbergen, 2012; Van Wingerden, Bakker, et al., 2017)

have included measures of, for instance, job-related affective wellbeing, psychological distress, self- and other-rated work performance, self-efficacy, and burnout.

Although a clear direction for future research would be to evaluate such a tailored job crafting intervention, it is important to remember that these interventions should be portable (i.e., one should be able to apply them successfully to employees across various industries and vocational contexts). Hence, a major avenue of future research should be to identify what are the ‘active ingredients’ of the intervention, and how one might pare away unnecessary elements in order to design the most efficient, purpose-driven programme.

Other directions for future research that respond more specifically to some of the shortcomings of the present study are these:

- 
- (a) truly random assignment of participants from each work site to either the Intervention or Control group – such assignment would remove the risk of site-specific confounds, as might be present in the current design;
  - (b) careful matching (e.g., with regard to age and education) of participants in the Intervention and Control groups – such matching would remove questions, such as exist here, about the role group differences in demographic characteristics might play in group differences across outcome variables;
  - (c) longer follow-up period – adding, for instance, a 3-month and a 1-year follow-up measurement point would allow one to answer questions about the sustainability of the intervention’s effects across the long-term, and about whether the positive effects observed here were merely short-term results of exposure to an opportunity to evaluate one’s job;

#### **5.4 Limitations of the Study**

The present study’s findings must be interpreted in the light of the methodological and other limitations described below. Although these five limitations do not significantly undermine the results presented in Chapter 4, they do provide an indication of guiding principles future

research endeavours might follow in order to improve on the fidelity of similar outcomes-based job crafting research.

A first limitation concerns the size and nature of the sample and whether those allow generalisation of the findings. Regarding the sample size, although it was sufficient to provide adequate power for the inferential analyses, a larger  $N$  would allow a stronger platform upon which to build a solid base of conclusions. Regarding the nature of the sample, all participants were employees of a single construction company. Although similar South African studies have also used domain-specific samples (e.g., nurses, police officers, and teachers), restricting recruitment to a single industry, and a single company within that industry, raises questions about whether, and why, the findings might (or might not) generalise to other industries and companies.

A second limitation concerns the method of data collection. All of the data were collected via self-report questionnaires, which are prone to social desirability influences and to experimenter demand effects (Rosenthal & Rosnow, 2007).

A third limitation concerns the fact that participation in the study was voluntary and that, therefore, the study's findings might have been biased in particular ways. Previous research suggests that voluntary employee participation in surveys may be an outcome of employee engagement (de la Rocha, 2015). Thus, those employees who volunteered to participate may already have been experiencing high rates of engagement, and might therefore have been willing to perform extra-role tasks. Furthermore, because job crafting requires employees to follow their own initiative, and to be proactive in shaping the characteristics of their work environments, those with inherent tendencies toward more dynamic and energetic personality traits might have been more likely not only to volunteer their participation, but to be more successful job crafters (Rudolph et al., 2017; Tornau & Frese, 2013).

A fourth limitation, even within a quasi-experimental design such as this, concerns the possibility of a test effect. That is, the effect of administering the same instruments at both measurement points might affect the post-intervention outcomes. Specifically, the testing process itself may lead to a behaviour change rather than being merely a passive record of behaviour at a particular point in time. In other words, pre-intervention administration of questions focused on job crafting, job demands, job resources, and work engagement may have made participant-employees more vigilant regarding their work-related behaviour and environment, thus leading to either (or both) actual behavioural changes or affected responses at the post-intervention measurement.

A fifth limitation concerns the fact that the present study only examined the possible positive effects of job crafting (i.e., increasing work engagement), and did not examine any possible negative effects. Job crafting itself may require substantial amounts of energy from employees, thus decreasing their ability to focus on other tasks. Furthermore, employees engaged in job crafting activities may try to decrease hindering job demands by delegating unpleasant tasks to colleagues, an act that can result in a more demanding work environment (and, consequently, higher levels of disengagement and burnout) for those co-workers (Tims, Bakker, & Derks, 2015).



## **5.5 Conclusion**

The general aim of this quasi-experimental study was to evaluate whether a job crafting intervention could improve the work engagement of individuals employed in the construction industry by changing the balance of job demands and resources. This chapter provided a general discussion of the study's results, a critical examination of the intervention itself, a set of directions for future research, and a list of methodological limitations that constrain the scope of inferences one might draw from the findings.

In summary, the findings of this study suggest that employees who take a proactive role in crafting their job-related tasks and environments tend to take on psychologically fulfilling

activities and will be more engaged in their work. Although further research is needed to describe the exact mechanisms by which job crafting interventions work, the kind of intervention used here seems to have the potential to enable employees to proactively build a motivating work environment and to improve their own job satisfaction.



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## 7. Appendixes

### Appendix A

#### Biographical Questionnaire

The following biographical information is requested in order for meaningful analysis and comparisons of group results can be made.

##### 1. What is your age group?

Under 20 years old	
20- 29 years old	
30- 39 years old	
40- 49 years old	
50-59 years old	
60- 69 years old	

##### 2. What is your gender?

Male	
Female	

##### 3. What is your marital status?

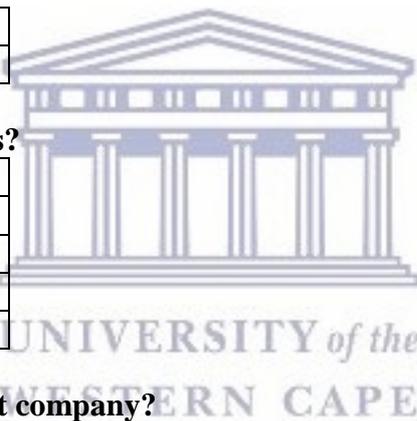
Single	
Married	
Divorced	
Separated	
Widowed	

##### 4. Length of service at present company?

Under 1 year	
1-2 years	
3-5 years	
6-10 years	
11-15 years	
16-20 years	
21-25 years	
26-30 years	
31 years & over	

##### 5. How long have you held your current position?

Under 1 year	
1-2 years	
3-5 years	
6-10 years	
11-15 years	
16-20 years	



21-25 years	
26-30 years	
31 years & over	

**6. How many jobs have you held in your current company?**

--

**7. How many companies had you worked for prior to joining your current organization?**

--

**8. Work Status**

Full-time	
Part-time	
Contract	

**9. What is your job title?**

**10. What is your job classification?**

Administrative	
Managerial	
Operational	
Technical	
Other	



**11. Division/department within the company?**

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**12. Your highest educational qualification?**

Grade 11 or lower	
Grade 12	
Post-Matric Diploma	
Baccalaureate Degree	
Post- Graduate Degree	

## Appendix B

### The Utrecht Work Engagement Scale

The following 17 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, cross the '0' (zero) in the space after the statement. If you have had this feeling, indicate how often you feel it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

0	Almost never 1	Rarely 2	Sometimes 3	Often 4	Very often 5	Always 6
Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

1.	When I get up in the morning, I feel like going to work.	0	1	2	3	4	5	6
2.	At my work, I feel bursting with energy.	0	1	2	3	4	5	6
3.	At my work I always persevere, even when things do not go well.	0	1	2	3	4	5	6
4.	I can continue working for very long periods at a time.	0	1	2	3	4	5	6
5.	At my job, I am very resilient, mentally.	0	1	2	3	4	5	6
6.	At my job I feel strong and vigorous.	0	1	2	3	4	5	6
7.	To me, my job is challenging.	0	1	2	3	4	5	6
8.	My job inspires me.	0	1	2	3	4	5	6
9.	I am enthusiastic about my job.	0	1	2	3	4	5	6
10.	I am proud of the work that I do.	0	1	2	3	4	5	6
11.	I find the work that I do full of meaning and purpose.	0	1	2	3	4	5	6
12.	When I am working, I forget everything else around me.	0	1	2	3	4	5	6
13.	Time flies when I am working.	0	1	2	3	4	5	6
14.	I get carried away when I am working.	0	1	2	3	4	5	6
15.	It is difficult to detach myself from my job.	0	1	2	3	4	5	6
16.	I am immersed in my work.	0	1	2	3	4	5	6
17.	I feel happy when I am working intensely.	0	1	2	3	4	5	6

## Appendix C

### The Job Crafting Scale

The following 21 statements are about how you feel thinking about your job and your work. Please read each statement carefully and use the scale to indicate the degree to which think this way about your job.

	Never 1	Rarely 2	Sometimes 3	Often 4	Very Often 5	
1.	I try to develop my capabilities.	1	2	3	4	5
2.	I try to develop myself professionally.	1	2	3	4	5
3.	I try to learn new things at work.	1	2	3	4	5
4.	I make sure that I use my capacities to the fullest.	1	2	3	4	5
5.	I decide on my own how I do things.	1	2	3	4	5
6.	I make sure that my work is mentally less intense.	1	2	3	4	5
7.	I try to make sure that my work is emotionally less intense.	1	2	3	4	5
8.	I manage my work so that I try to minimize contact with people whose problems affect me emotionally.	1	2	3	4	5
9.	I organize my work so as to minimize contact with people whose expectations are unrealistic.	1	2	3	4	5
10.	I try to ensure that I do not have to make many difficult decisions at work.	1	2	3	4	5
11.	I organize my work in such a way to make sure that I do not have to concentrate for too long a period at once.	1	2	3	4	5
12.	I ask my supervisor to coach me.	1	2	3	4	5
13.	I ask whether my supervisor is satisfied with my work.	1	2	3	4	5
14.	I look to my supervisor for inspiration.	1	2	3	4	5
15.	I ask others for feedback on my job performance.	1	2	3	4	5
16.	I ask colleagues for advice.	1	2	3	4	5
17.	When an interesting project comes along, I offer myself proactively as project co-worker.	1	2	3	4	5
18.	If there are new developments, I am one of the first to learn about them and try them out.	1	2	3	4	5
19.	When there is not much to do at work, I see it as a chance to start new projects.	1	2	3	4	5
20.	I regularly take on extra tasks even though I do not receive extra salary for them.	1	2	3	4	5
21.	I try to make my work more challenging by examining the underlying relationships between aspects of my job.	1	2	3	4	5

## Appendix D

### The Job Demands-Resources Scale

The following 42 statements are about the demands of your job and the resources you have available to you. Please read each statement carefully and use the scale to indicate the degree to the answers accurately describe your own situation and feelings.

	Never 1	Seldom 2	Often 3	Always 4	
1.	Do you have too much work to do?	1	2	3	4
2.	Do you work under time pressure?	1	2	3	4
3.	Do you have to be attentive to many things at the same time?	1	2	3	4
4.	Do you have to give continuous attention to your work?	1	2	3	4
5.	Do you have to remember many things in your work?	1	2	3	4
6.	Are you confronted in your work with things that affect you personally?	1	2	3	4
7.	Do you have contact with difficult people in your work?	1	2	3	4
8.	Does your work put you in emotionally upsetting situations?	1	2	3	4
9.	Do you have enough variety in your work?	1	2	3	4
10.	Does your job offer you opportunities for personal growth and development?	1	2	3	4
11.	Does your work give you the feeling that you can achieve something?	1	2	3	4
12.	Does your job offer you the possibility of independent thought and action?	1	2	3	4
13.	Do you have freedom in carrying out your work activities?	1	2	3	4
14.	Do you have influence in the planning of your work activities?	1	2	3	4
15.	Can you participate in the decision about when a piece of work must be completed?	1	2	3	4
16.	Can you count on your colleagues when you come across difficulties in your work?	1	2	3	4
17.	If necessary, can you ask your colleagues for help?	1	2	3	4
18.	Do you get on well with your colleagues?	1	2	3	4
19.	Can you count on your supervisor when you come across difficulties in your work?	1	2	3	4
20.	Do you get on well with your supervisor?	1	2	3	4
21.	In your work, do you feel appreciated by your supervisor?	1	2	3	4

22.	Do you know exactly what other people expect of you in your work?	1	2	3	4
23.	Do you know exactly for what you are responsible?	1	2	3	4
24.	Do you know exactly what your direct supervisor thinks of your performance?	1	2	3	4
25.	Do you receive sufficient information for the purpose of your work?	1	2	3	4
26.	Do you receive sufficient information on the results of your work?	1	2	3	4
27.	Does your direct supervisor inform you about important issues within your department/organisation?	1	2	3	4
28.	Are you kept adequately up-to-date about important issues within your organisation?	1	2	3	4
29.	Is the decision-making process of your organisation clear to you?	1	2	3	4
30.	Is it clear to you whom you should address within the organisation for specific problems?	1	2	3	4
31.	Can you discuss work problems with your direct supervisor?	1	2	3	4
32.	Can you participate in decisions about the nature of your work?	1	2	3	4
33.	Do you have a direct influence on your organisation's decisions?	1	2	3	4
34.	Do you need to be more secure that you will still be working in one year's time?	1	2	3	4
35.	Do you need to be more secure that next year you will keep your current job in the next year?	1	2	3	4
36.	Do you need to be more secure that next year you will keep the same function level as currently?	1	2	3	4
37.	Do you think your organisation pays good salaries?	1	2	3	4
38.	Can you live comfortably on your pay?	1	2	3	4
39.	Do you think you are paid enough for the work that you do?	1	2	3	4
40.	Does your job offer you the possibility to progress financially?	1	2	3	4
41.	Does your organisation give you opportunities to follow training courses?	1	2	3	4
42.	Does your job give you the opportunity to be promoted?	1	2	3	4

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## Appendix E

### Informed Consent Documents



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Title of Study:

**An evaluation of job crafting as an intervention aimed at improving work engagement.**

Principal Investigator: Ms Emmarentia Thomas

Research Supervisor: Dr Marieta du Plessis

---

INFORMED CONSENT

By signing this consent form, I confirm that I have read and understood the information and have had the opportunity to ask questions. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving a reason and without cost. I understand that I will be given a copy of the information letter, and the consent form (should I want this).  
By signing below, I voluntarily agree to take part in this study.

Name and surname: \_\_\_\_\_

Signature \_\_\_\_\_ Date \_\_\_\_\_

*Please note: Your consent form and your completed questionnaire will be placed in two separate boxes. Therefore, by signing your name on this form, your responses will not be linked in any way to your completed questionnaire as these documents will be collected and stored separately.*



---

Title of Study:

**An evaluation of job crafting as an intervention aimed at improving work engagement.**

Principal Investigator: Mrs Emmarentia Thomas

Research Supervisor: Dr Marieta du Plessis

---

Dear participant

We invite you to participate in a research study which will evaluate whether a job crafting intervention can improve work engagement. Before you decide to participate in this study, it is important that you understand why the research is being done and what it will involve. Please take the time to read the following information carefully. Please ask the researcher if there is anything that is not clear of if you need more information.

### **Study procedure**

You will receive four questionnaires that will be written in English. These questionnaires will gather information about your biographical data and the characteristics of your work environment.

First you will be requested to complete a biographical questionnaire. Two weeks later you will be requested to complete three questionnaires describing the characteristics of your work environment. You will then be requested to attend a job crafting training workshop where you will receive training on developing your own personal crafting plan. You will be requested to complete a weekly log book at the beginning and end of the week for a period of four weeks.

Two weeks later you will be requested to complete the same three questionnaires as you did before you attended the job crafting training workshop.

No questionnaire should take more than 20 minutes to complete. These questionnaires have demonstrated acceptable reliability and validity to be used in research.

### **Risks**

The risks of this study are minimal. These risks are similar to those you experience when disclosing work-related information to others. You may decline to answer any or all questions and you may terminate your involvement at any time if you choose.

### **Benefits & Compensation:**

There will be no direct benefit to you for your participation in this study. There will also be no compensation for completing the questionnaire. Your contribution will help the management community to better understand factors that may improve psychological capital and work engagement in the workplace.

### **Confidentiality:**

Your responses will be kept anonymous. Every effort will be made by the researcher to preserve your confidentiality including the following:

- The analysis of the data will be done entirely objectively by the researcher. Information from this research will be used solely for the purpose of this study and any publications that may result from this study. All other participants involved in this study will not be identified and their anonymity will be maintained.
- A summary report of the data will be made available to you and your organisation. However, no identifiable data w.r.t. biographical variables (i.e. age, gender, department, etc.) will be made available to your organisation.
- Participant data will be kept confidential except in cases where the researcher is legally obligated to report specific incidents. These incidents include, but may not be limited to, incidents of abuse and suicide risk.

**Voluntary Participation:**

Your participation in this study is voluntary. It is up to you to decide whether or not to take part in this study. If you do decide to take part in this study, you will be asked to sign a consent form. You will also be given a copy of the information letter. If you decide to take part in this study, you are still free to withdraw at any time and without giving a reason. You are free to not answer any question or questions if you choose. This will not affect the relationship you have with the researcher.

I greatly appreciate the time and effort you have contributed into helping me further my research.

**Emmarentia Thomas**

Principal researcher

084 591 5937

[emmarabs@hotmail.com](mailto:emmarabs@hotmail.com)**Dr Marieta du Plessis**

Research supervisor

(021) 959 3175

[mduplessis@uwc.ac.za](mailto:mduplessis@uwc.ac.za)**Dr Bright Mahembe**

Head of Department

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[bmahembe@uwc.ac.za](mailto:bmahembe@uwc.ac.za)

## Appendix F

### Job Crafting Intervention: Training workshop presentation

# Job Crafting

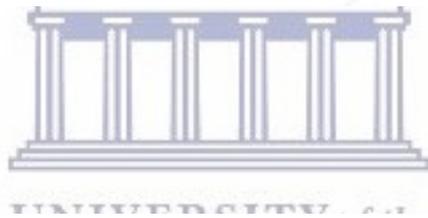


## Agenda

- ▶ Work Engagement
- ▶ Job Demands - Resources
- ▶ Job Crafting
- ▶ Exercise
- ▶ Individual crafting exercise
- ▶ Questions / Comments



"An engaged employee, is a fulfilled employee."



## Work Engagement

- ▶ Engagement: A positive state of satisfaction characterized by vitality, dedication and absorption. (Schaufeli & Bakker, 2003, 2004, 2010)
- ▶ Vigor
  - ▶ At my job I feel strong and vigorous
- ▶ Dedication
  - ▶ I am enthusiastic about my work
- ▶ Absorption
  - ▶ I get carried away by my work

“

Pleasure in the job puts  
perfection in the work

”

Aristotle



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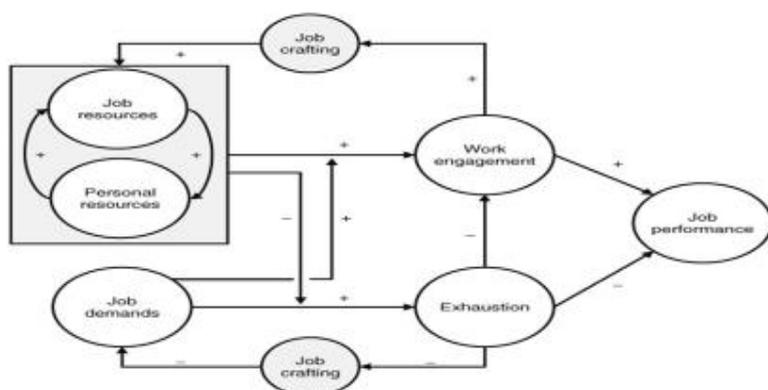
## What prevents us from being engaged



## What can we do to Improve?

- ▶ Individual level
  - ▶ Gratefulness and kindness (Ouweneel, Le Blanc & Schaufeli, 2014)
  - ▶ Mindfulness (Leroy, Anseel, Dimitrova & Sels, 2013)
  - ▶ Job crafting training (Van den Heuvel, Demerouti & Peeters, 2012)
  - ▶ Career management training (Vuori, Toppinen-Tanner & Mutanen, 2011)
- ▶ Team level
  - ▶ Manager led group meetings (Allen & Rogeslberg, 2013)
  - ▶ Caring leadership (Bishop, 2013)
  - ▶ Team redesign (Cifre, Salanova & Rodriguez, 2010)
  - ▶ Team-level collaborative job crafting (McClelland, 2014)
- ▶ Organization level
  - ▶ Performance management (Mone et al., 2011)
  - ▶ Leadership development (Biggs, Brough & Bardour, 2014)

## Job Demands - Resources Model



Demerouti, 2014



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## Job Demands - Resources



## Job Demands

- ▶ Risks & Hazards
- ▶ Physical Demands
- ▶ Complexity
- ▶ Workload
- ▶ Time pressures
- ▶ Mental demands

## Job Resources

- ▶ Job knowledge
- ▶ Autonomy
- ▶ Performance feedback
- ▶ Opportunity to develop
- ▶ Supportive environment
  - ▶ Social support
  - ▶ Leadership support
  - ▶ Safety climate



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## Job Crafting

Refers to the physical and mental changes workers make in the task or relationship aspect of their jobs.

The common types of job crafting are:

1. Changing the number and type of job tasks;
2. Changing the interaction with others on the job; and
3. Changing one's view of the job.



## Exercise - work in groups of two

- ▶ What are your Job demands?
- ▶ What are your Job resources?
- ▶ Identify a challenge
  - ▶ Think of how
    - ▶ You can reduce the demands
    - ▶ Increase your resources
    - ▶ Use your resources to leverage demands
- ▶ Discuss

## Individual crafting exercise

- ▶ What does your job give you?
- ▶ How can you actually make the experiences of learning, the maximum use of your abilities and the professional development of yourself in the your job?
- ▶ How can you strive to increase the meaningfulness of work through socializing?
- ▶ How can you strive to get your job more challenging? What are your challenges?
- ▶ How to reduce your workload without compromising output?
- ▶ How to Maximize Work Concentration?
- ▶ What do you experience as the biggest challenge in your job?
- ▶ What kind of support do you require for your work?
- ▶ How would you do the job in a way that is right for you?



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Thank You



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