

https://dspace.org/

# Workplace bullying among teachers: a job demands-resources perspective

**Solomon, Daniella**

**2021**
https://hdl.handle.net/10539/33696

Downloaded from a DSpace repository. https://dspace.org/

Master of Arts in Organisational Psychology

University of the Witwatersrand




# Workplace Bullying Among Teachers: A Job Demands-Resources Perspective

**Daniella Solomon**

**2386631**

**Supervisor: Professor Colleen Bernstein**

A research report submitted in partial fulfilment of the requirements for the degree of Masters of Arts by Coursework and Research Report in the field of Organisational Psychology in the Faculty of Humanities, University of the Witwatersrand, Johannesburg, 29 April 2021.

**Plagiarism Declaration**

I, Daniella Solomon, declare that this research project is my own, unaided work. It has not been submitted before for any other degree or for examination at this or any other university.

Signed:  Date: 29 April 2021

**Acknowledgements**

To my supervisor, Professor Colleen Bernstein. Thank you for your unwavering support, expertise and feedback during what can only be described as a turbulent year. You have inspired me to produce work of the highest standards. I am honoured to have worked with you and I will forever remain appreciative of your invaluable guidance. Thank you, Prof, for inspiring, supporting and pushing me!

To the teachers who participated in this research endeavour. Thank you for committing your time and effort.

Thank you to Ms Toni Batchelor and Prof. Colleen Bernstein for providing me with the data to carry out this study.

To my family, thank you for your continual encouragement and unfailing support throughout my university career. You have instilled in me an appreciation of the value of knowledge. Thank you for encouraging me to use and develop it in the service of others.

Finally, to my partner, Jonathan Sive. Thank you for your understanding and never-ending encouragement. Your support has motivated me throughout this journey and means more to me than I could ever express.

**Abstract**

Teachers within South African schools are subject to toxic working conditions, characterised by excessive job demands, limited job resources and widespread social relations (Jacobs & De Wet, 2013; Sowetan, 2014). Workplace bullying flourishes within such stressful environments leading to burnout and subsequent deleterious effects on the quality of education provided by teachers. The South African education system is dependent of the efficacy of its teachers. Therefore, it is essential to investigate the factors contributing to this phenomenon and the implications for the bullied individual and the organisation. The present study examined the context-specificity of workplace bullying among South African teachers and the bullying outcome of burnout comprising emotional exhaustion, depersonalisation and lack of personal accomplishment from a Job Demands-Resources Perspective. This study made use of secondary self-report survey data completed by teachers in 14 Gauteng schools ($N$ = 158). The survey contained a demographic questionnaire, the Negative Social Acts Questionnaire-Revised, the Job Demands Resources Scale, and the Maslach's Burnout Inventory-Educators Survey. Results indicated that a significant relationship exists between job characteristics and workplace bullying and that workplace bullying was significantly related to burnout. No demographic differences were found based on age, ethnicity, home language, marital status, number of dependents and level of education. However, findings for school quintiles revealed that teachers in poorer resourced schools experienced significantly higher levels of workplace bullying, job demands, emotional exhaustion and depersonalisation as well as significantly lower levels of job resources and personal accomplishment compared to those in better resourced schools. Moderated multiple regression analyses determined that in the presence of job characteristics workplace bullying among teachers led to higher levels of depersonalisation. Additionally, job demands moderated (boosted) this relationship. While job resources predicted emotional exhaustion, job resources did not moderate the relationship between workplace bullying and the three burnout subcomponents. The results of this study can be used inform South African labour legislation and to create context specific interventions to address workplace

bullying within South African schools. In addition, the theoretical and practical implications of the study were explored together with its limitations and recommendations for future workplace bullying research.

*Keywords:* Teachers, Workplace Bullying; Job Demands; Job Resources; Burnout; Depersonalisation; Emotional Exhaustion; Personal Accomplishment

## Table of Contents

**Plagiarism Declaration** ..... **ii**

**Acknowledgements** ..... **iii**

**Abstract** ..... **iv**

**Abbreviations** ..... **xiii**

**Chapter Layout** ..... **xiv**

Chapter 1: Literature Review ..... xiv

Chapter 2: Method ..... xiv

Chapter 3: Results ..... xiv

Chapter 4: Discussion ..... xiv

**Chapter 1: Literature Review** ..... **1**

**1.1. Introduction and Research Rationale** ..... **1**

**1.2. Defining Workplace Bullying** ..... **2**

1.2.1. Negative Social Acts ..... 3

1.2.2. Targets, Victims and Perpetrators of Workplace Bullying ..... 4

1.2.3. Frequency ..... 5

1.2.4. Power Imbalance ..... 6

**1.3. Consequences of Workplace Bullying Exposure** ..... **9**

1.3.1. Individual Outcomes ..... 9

1.3.2. Organisational Consequences ..... 13

**1.4. The Antecedent-Bullying Relationship** ..... **14**

1.4.1. Individual Dispositions ..... 14

1.4.2. The Work Environment Hypothesis ..... 19

**1.5. Contextualizing Workplace Bullying among Teachers** ..... **28**

1.5.1. Workplace Bullying among South African Teachers.....29

1.5.2. Factors Contributing to Workplace Bullying Among South African Teachers .....30

1.5.3. Burnout in Bullied Teachers .....31

1.5.4. The Moderating Effects of Job Demands and Job Resources on the Workplace Bullying-Burnout Relationship. .....33

**1.6. Conclusion of the Literature Review .....34**

**Chapter 2: Method .....35**

**2.1. Introduction .....35**

**2.2. Research Aims .....35**

**2.3. Research Questions .....35**

**2.4. Research Hypotheses .....35**

**2.5. Research Design.....36**

**2.6. Sample and Sampling Procedure .....36**

**2.7. Instruments .....39**

2.7.1. Demographic Questionnaire.....39

2.7.2. Job Demands Resources Scale (JDRS).....39

2.7.3. Negative Acts Questionnaire – Revised (NAQ-R) .....40

2.7.4. Maslach's Burnout Inventory-Educators Survey (MBI-ES).....40

**2.8. Procedure .....41**

2.8.1. Secondary Data Analysis .....41

2.8.2. Procedure Followed by the Primary Researcher .....41

**2.9. Data Analysis .....42**

2.9.1. Descriptive Statistics.....42

2.9.2. Psychometric Properties of the Instruments .....43

2.9.3. Pearson Product-Moment Correlation.....43

2.9.4. Analysis of Variance (ANOVA) ..... 45

2.9.5. Moderated Multiple Regression ..... 45

**2.10. Ethical Considerations ..... 48**

2.10.1. Informed Consent and Voluntary Participation ..... 48

2.10.2. Confidentiality, Anonymity and Data Storage ..... 49

**2.11. Conclusion of the Method Chapter ..... 49**

**Chapter 3: Results ..... 50**

**3.1. Introduction ..... 50**

**3.2. Psychometric Properties of the Instruments ..... 50**

3.2.1. Exploratory Factor Analysis ..... 50

3.2.2. Internal Consistency Reliability Analysis ..... 54

**3.3. Descriptive Statistics ..... 54**

3.3.1. Mean, Standard Deviation, Maximum and Minimum scores ..... 55

3.3.2. Normality ..... 56

**3.4. Pearson Product-Moment Correlation Coefficients ..... 57**

3.4.1. Testing Person's Correlation Assumptions ..... 57

3.4.2. Pearson Product-Moment Correlation Interpretation ..... 58

**3.5. Analysis of Variance (ANOVA) ..... 60**

3.5.1. Testing ANOVA Assumptions ..... 60

3.5.2. ANOVA for School Quintile and Workplace Bullying ..... 61

3.5.3. ANOVA for School Quintile and Emotional Exhaustion ..... 61

3.5.4. ANOVA for School Quintile and Depersonalisation ..... 61

3.5.5. ANOVA for School Quintile and Personal Accomplishment ..... 62

3.5.6. ANOVA for School Quintile and Job Demands ..... 62

3.5.7. ANOVA for School Quintile and Job Resources ..... 63

**3.6. Moderated Multiple Regression (MMR) ..... 64**

3.6.1. Testing for MMR Assumptions ..... 64

3.6.2. Moderated Multiple Regression Model Summaries ..... 65

3.6.3. MMR Emotional Exhaustion as the Outcome Variable ..... 66

3.6.4. MMR Depersonalisation as the Outcome Variable ..... 67

3.6.5. MMR Personal Accomplishment as the Outcome Variable ..... 69

**3.7. Summary of Results ..... 70**

**Chapter 4: Discussion ..... 72**

**4.1. Introduction ..... 72**

**4.2. Job Characteristics and Workplace Bullying Among Teachers ..... 72**

4.2.1. Reciprocal Relationship Between Job Characteristics and Workplace Bullying ..73

4.2.2. Job Characteristics, Workplace Bullying and School Quintile ..... 74

**4.3. Workplace Bullying and Burnout Among Teachers ..... 75**

4.3.1. Workplace Bullying and Depersonalisation ..... 76

4.3.2. Workplace Bullying and Emotional Exhaustion ..... 76

4.3.3. Workplace Bullying and Personal Accomplishment ..... 76

4.3.4. The Role of Time in Stressor-Strain Relationships ..... 77

**4.4. The Role of Job Demands ..... 79**

4.4.1. Job Demands and the Workplace Bullying-Depersonalisation Relationship ..... 80

4.4.2. Job Demands and the Workplace Bullying-Emotional Exhaustion Relationship .81

4.4.3. Job Demands and the Workplace Bullying-Personal Accomplishment Relationship ..... 83

**4.5. The Role of Job Resources ..... 84**

4.5.1. Resource Loss Prevention ..... 84

4.5.2. Timing Effects ..... 85

4.5.3. Interaction between Job Demands and Job Resources ..... 86

4.5.4. Extraneous Variables ....87

**4.6. Theoretical and Practical Implications ....89**

4.6.1. Theoretical Implications ....89

4.6.2. Practical Implications ....90

**4.7. Limitations and Recommendations for Future Research ....92**

4.7.1. Secondary Data Analysis ....92

4.7.2. Research Design ....93

**4.8. Conclusion of the Discussion ....95**

**References ....96**

**Appendix A: Hard Copy Survey ....114**

**Appendix B: Permission for Secondary Data Analysis ....122**

**Appendix C: Participant Information Sheet for Principals ....123**

**Appendix D: Gauteng Department of Education Research Permission Letter ....126**

**Appendix E: Teacher Participant Information Sheet ....128**

**Appendix F: HREC Ethics Clearance Certificate ....130**

**Appendix G: Primary Data Collection HREC Ethics Approval ....131**

**Appendix H: Assumptions Testing ....132**

**Appendix I: Non-Significant ANOVAs ....140**

**Appendix J: Turnitin Report ....149**

## List of Figures

**Figure 1.1**. *The Passive Ineffective Coping Process* ..... 20

**Figure 1.2.** *The Active Ineffective Coping Process* ..... 21

**Figure 1.3** *The Interpersonal Conflict Processes* ..... 22

**Figure 1.4** *The Job Strain Model* ..... 24

**Figure 1.5** *The Job Demand-Control-Support Model* ..... 25

**Figure 1.6** *Interaction between Job Demands and Job Resources* ..... 28

**Figure 1.7** *Workplace Bullying, the JD-R Model and Burnout* ..... 34

**Figure 2.1** *PROCESS Model 2 Conceptual Diagram* ..... 46

**Figure 2.2** *PROCESS Model 2 Statistical Diagram* ..... 46

**Figure 3.1** *Simple Slopes Analysis: Moderation of Job Demands on Workplace Bullying and Depersonalisation* ..... 68

**Figure 4.1** *Reciprocal Relationship between Job Characteristics and Workplace Bullying* ..... 74

**Figure 4.2** *The Synchronous and Lagged Effects of Workplace Bullying, Depersonalisation and Emotional Exhaustion* ..... 78

**Figure 4.3** *The Synchronous and Lagged Effects of Workplace Bullying, Depersonalisation and Lack of Personal Accomplishment* ..... 79

**Figure 4.4** *The Moderating Role of Job Demands on the Workplace Bullying-Depersonalisation Relationship and Conservation of Resources Theory* ..... 81

**Figure 4.5** *The Lagged Effects of Workplace Bullying and Job Demands on Emotional Exhaustion* ..... 82

**Figure 4.6** *The Posited Mediation Relationship Between Workplace Bullying, Job Demands and Emotional Exhaustion* ..... 83

**Figure 4.7** *The Timing Effect of the Job Resources Moderating Process* ..... 86

**Figure 4.8** *The Moderating Relationship of Job Demands and Job Resources on the Workplace Bullying-Depersonalisation Relationship* ..... 87

## List of Tables

**Table 2.1** *Demographic Characteristics of the Sample* ..... 37

**Table 2.2** *Internal Consistency Principles of Kline (1998)* ..... 43

**Table 2.3** *Interpretation of Correlation Coefficients based on Guilford's guidelines (1956)* ..... 44

**Table 2.4** *Hypotheses Components Required for Moderation Analysis* ..... 47

**Table 3.1** *Factor Loadings for the Job Demands Resources Scale* ..... 51

**Table 3.2** *Factor Loadings for the Maslach's Burnout Inventory-Educators Survey* ..... 53

**Table 3.3** *Reliability Analyses for the WPB, JDRS and MBI-ES Scales and Subscales* ..... 54

**Table 3.4** *Frequency Distribution of the MBI-ES Subscales* ..... 56

**Table 3.5** *Descriptive Statistics and Distribution Values* ..... 57

**Table 3.6** *Lower and Upper Bound Limits According to Tukey's (1977) Method* ..... 58

**Table 3.7** *Pearson Product Moment Correlation Coefficients* ..... 59

**Table 3.8** *Levene's Test for Homogeneity of Variance* ..... 60

**Table 3.9** *Summary of ANOVAs for School Quintile* ..... 63

**Table 3.10** *Collinearity Statistics* ..... 65

**Table 3.11** *Moderated Multiple Regression Summaries* ..... 66

**Table 3.12** *MMR Emotional Exhaustion as the Outcome Variable* ..... 67

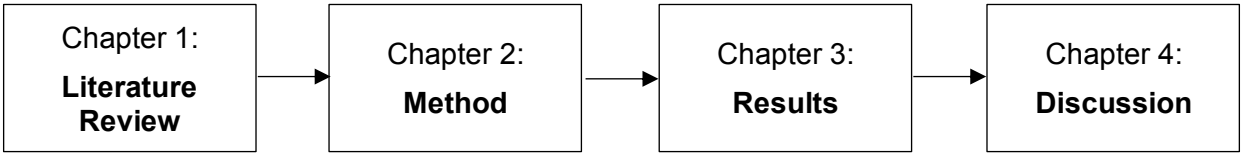
**Table 3.13** *MMR Depersonalisation as the Outcome Variable* ..... 68

**Table 3.14** *MMR Personal Accomplishment as the Outcome Variable* ..... 69

## Abbreviations

| | |
|---|---|
| ANOVA | Analysis of Variance |
| COR Theory | Conservation of Resources Theory |
| DP | Depersonalisation |
| EE | Emotional Exhaustion |
| EFA | Exploratory Factor Analysis |
| GDE | Gauteng Department of Education |
| HREC | Human Research Ethics Committee |
| JDC Model | Job Demands Control Model |
| JD | Job Demands |
| JDCS Model | Job Demands Control Support Model |
| JD-R Model | Job Demands-Resources Model |
| JDRS | Job Demands Resources Scale |
| JR | Job Resources |
| KMO Measure | Kaiser-Meyer-Olkin Measure |
| MBI-ES | Maslach Burnout Inventory-Educators Survey |
| MMR | Moderated Multiple Regression |
| NAQ-R | Negative Acts Questionnaire-Revised |
| PA | Personal Accomplishment |
| PCA | Principal Component Analysis |
| PTSD | Post-Traumatic Stress Disorder |
| SA | South Africa |
| SPSS | Software Package for Social Sciences |
| WPB | Workplace Bullying |

**Chapter Layout**




**Chapter 1: Literature Review**

This chapter will provide a review of the definitions, key features, antecedents, outcomes and theories within the existing literature relating to workplace bullying, burnout and job characteristics as well as the relationships between these variables. Further to this, workplace bullying, burnout, job characteristics and their interactions will be contextualised within the South African education environment.

**Chapter 2: Method**

This chapter will provide an overview of the research methodology employed within this study. The research aims, questions and hypotheses will be outlined, and the research design will be discussed. Thereafter, the sample demographics and sampling procedure will be presented together with a discussion of the instruments used, the primary and secondary procedures, data analyses required and the ethical considerations of this research study.

**Chapter 3: Results**

This chapter will focus on presenting the results obtained in relation to this study's stated hypotheses, through the use of both descriptive and inferential statistics as outlined in the Methods Chapter (Chapter 2).

**Chapter 4: Discussion**

To conclude, the results presented in Chapter 3 will be discussed. Arguments as to why certain findings were obtained will be presented in accordance with existing literature. Finally, the theoretical and practical implications, limitations and future recommendations of the present study will conclude the chapter.

# Chapter 1: Literature Review

## 1.1. Introduction and Research Rationale

South African teachers are working in toxic schools characterised by disgruntled, overworked and stressed employees (Sowetan, 2014). In these environments, workplace bullying between teachers tends to flourish (van den Broeck et al., 2011). In a country whose education system has been labelled a 'national disaster', teachers are key role players (Bloch, 2009). Yet, studies indicate that South African teachers are three times more likely to experience workplace bullying than their peers in other parts of the world (Bloch, 2009; Jacobs & De Wet, 2013). Teachers exposed to workplace bullying are affected psychosocially, physiologically, and professionally, which can manifest in the psychological response of burnout (Bernotaite & Malinauskiene, 2017). As a result of emotional exhaustion, depersonalisation and a lack of personal accomplishment, South African teachers are leaving the profession, which does not bode well for an already ailing education system (De Wet & Jacobs, 2014).

The detrimental effects of workplace bullying infringe upon the rights of teachers to work in an environment in which human rights prevail, as well as learners' rights to receive quality education from professionally and emotionally committed teachers (Jacobs & De Wet, 2015). Ultimately, workplace bullying among teachers may be contributing to South Africa's teacher shortage. To rebuild South Africa's faltering school system, it is imperative that teachers are dedicated and motivated (Jacobs & De Wet, 2013). It is therefore necessary to investigate the nature and effects of workplace bullying among teachers within the South African context (De Vos & Kirsten, 2015).

This research study investigates the context-specificity and burnout outcome of workplace bullying experienced by teachers within South Africa. As such, to contextualize this study, the Job Demands-Resources Model (JD-R) (Bakker & Demerouti, 2007) will be used to outline the job demands that may arise as factors contributing to workplace bullying and burnout in South African schools. Moreover, the JD-R will be employed to determine the job resources that may mitigate burnout as a result of workplace bullying within the South

African schooling context (van den Broeck et al., 2011). The pathways linking the JD-R to the workplace bullying-burnout relationship among teachers will therefore be examined. Burnout may have inimical effects on the quality of education provided by teachers, posing a threat to the education system as a whole (Bernotaite & Malinauskiene, 2017). Thus, the workplace bullying outcome of burnout will be investigated, making use of the Conservation of Resources Theory (COR) (Hobfoll, 1989). It is vital to investigate the nature and effects of workplace bullying among teachers to allow for the creation of interventions to address this pertinent workplace issue in the education sector.

### 1.2. Defining Workplace Bullying

Workplace bullying (WPB) is a serious, yet often unrecognised counterproductive workplace behaviour (Ariza-Montes et al., 2016). This, in part, can be attributed to the absence of a universal understanding of this construct. Without a universal WPB definition, identifying and thereby addressing WPB proves to be a difficult endeavour. WPB has been conceptualised as harassment, intimidation, victimisation, mistreatment, aggression and/or emotional abuse in the workplace (Ariza-Montes et al., 2016). While there exists a proliferation of WPB conceptualisations, a number of reoccurring WPB features arise in the literature. These features include negative social acts, the perpetrator, target and/ or victims, intent, frequency, and power imbalance (Branch et al., 2013; Rai & Agarwal, 2016; Tehrani, 2013). To gain a comprehensive understanding of the WPB construct, these features will be explored below.

The following comprehensive definition encapsulates these agreed upon features:

> *"Workplace bulling is harassing, offending, or socially excluding someone or negatively affecting someone's work. In order for the label bullying to be applied to a particular activity, interaction or process, the bullying behaviour has to occur repeatedly and regularly (e.g. weekly) and over a period of time (e.g. about six months). Bullying is an escalating process in the course of which the person confronted ends up in an inferior position and becomes the target of systematic negative social acts. A conflict cannot be called bullying if*

*the incident is an isolated event or if two parties of approximately equal strength are in conflict" (Einarsen, Hoel, Zapf & Cooper, 2011, p.2).*

### *1.2.1. Negative Social Acts*

The above definition accepts that WPB takes the form of negative social acts, while acknowledging that this negative behaviour can manifest in different ways. However, no definitive and/or exhaustive 'checklist' of which negative social acts constitute WPB exists (Cunniff & Mostert, 2012). In order to operationalise the construct of WPB, researchers have attempted to examine the underlying structures and patterns of WPB behaviours. Early bullying research, such as that of Leymann (1990), proposed that WPB could be divided into five categories namely *reputation* manipulation, *work task performance* manipulation, *co-worker communication* manipulation, *social circumstance* manipulation and *violence* and/or threats of violence (Leymann, 1990). Similarly, Einarsen and Raknes (1997) divided WPB into four different forms. These included personal harassment (attacking the private person), work-related harassment, physical violence, and social isolation.

However, as WPB literature evolved and the complexity of this construct became more apparent, researchers attempted to operationalise WPB in a more holistic manner. As such, WPB has been operationalised into two widely accepted categories of negative social acts – *direct* and *indirect* bullying behaviours (Baldry, 2003). *Direct* negative social acts are exercised through harmful interpersonal behaviours such as verbal abuse, public humiliation, threats and physical violence as well as work-related behaviours such tarnishing an employee's professional image (Campbell & Wiernik, 2015). Conversely, negative social acts can be *indirect* in nature, where employees are undermined, socially isolated, ignored and/or excluded from work-related circumstances through the spreading of rumours, withholding information and the refusal to work with another individual (van den Broeck et al., 2011).

These direct and indirect negative social acts can be further differentiated into three categories that encapsulate the WPB phenomenon according to Einarsen et al. (2009) and Rai and Agarwal (2017). The first of these categories is *work-related bullying* which involves

unreasonable and unmanageable workload and deadlines, excessive monitoring and withholding necessary work-related information (Einarsen et al., 2009; Rai & Agarwal, 2017). *Person-related bullying*, on the other hand, encompasses humiliation, social isolation, persistent criticism and the spreading of rumours (Rai & Agarwal, 2017). Lastly, *physically intimidating bullying* includes behaviours of physical violence or a threat thereof, such as the intimidating behaviours of shouting, finger pointing, the blocking of individuals' paths, spontaneous outbursts of anger and physical abuse (Einarsen et al., 2009). This study will make use of Einarsen et al.'s (2009) conceptualisation of WPB's three forms as these factors were derived from the Negative Acts Questionnaire-Revised (NAQ-R), the measure utilised in the current study to establish the prevalence of WPB among Gauteng teachers.

Evidently, the varying operationalisations of the negative social acts that constitute WPB further illustrate the difficulties faced by bullying researchers when providing a clear definition of this construct. WPB is ultimately multi-dimensional in nature, and to further understand this phenomenon it is necessary to describe its key role-players.

### *1.2.2. Targets, Victims and Perpetrators of Workplace Bullying*

The bullying literature depicts targets, victims, and perpetrators as key-role players in WPB. Perpetrators of WPB or 'bullies' are individuals responsible for carrying out negative social acts, whether they are direct or indirect, against targets in the workplace (Baldry, 2003). Perpetrators may not be cognisant that their actions constitute WPB, or they may purposefully seek to bully others (O'Farrell et al., 2018). This gives rise to the question of intent and whether intent to cause harm should be a prerequisite for the conceptualisation of WPB. Accordingly there exists two opposing bodies of research, one which requires WPB to be characterised as the intent to cause harm to another individual and the other which posits that WPB behaviours may be intentional and conscious yet they can occur in the absence of intent to cause harm (Einarsen et al., 2011; Hoel et al., 1999). As such, theorists have conceptualised three types of intent namely *wilful* intent, *instrumental* intent and *unintentional* behaviour (Tehrani, 2013). *Wilful* intent illustrates the conventional perspective of 'bullies', where WPB behaviours are carried out with the purpose of causing physical

and/or psychological harm. *Instrumental* intent, on the other hand, is where a separate goal or action unintendedly results in WPB behaviours. *Unintentional* behaviours arise when the perpetrator lacks the sensitivity to foresee the adverse outcomes of their actions (Tehrani, 2013). It is, however, unlikely that a perpetrator will remain unaware of the harm caused by their negative social acts, as WPB occurs over an extended period of time (Einarsen et al., 2011). Moreover, the perpetrator's intent does not necessarily alter the consequences of WPB behaviours. Rather, the focus of intent should fall upon the perception of the individual subject to such negative social acts. This aids in making the distinction between 'targets' versus 'victims' of WPB. One could further argue that even if there was no intent to harm, if harm does indeed result, organisations should understand the nature of this effect. Policies and procedures should be put in place that clearly state which behaviours are deemed to be unacceptable, as they may cause harm, and to ensure that there is zero tolerance for such behaviours being enacted (Bernstein & Trimm, 2016).

The terms 'target' and 'victim' are used interchangeably in a large body of WPB literature. However, these terms are not synonymous. Nielsen et al. (2011) argue that both targets and victims are exposed to negative social acts, however, victims label and evaluate themselves as being subject to WPB. Added to this, victims perceive WPB behaviours as intent to harm. Therefore wilful, instrumental and even unintentional harmful acts on the part of the perpetrator will be perceived as acts of bullying by victims. As WPB research is conventionally and largely associated with self-report measures, it is therefore the perception of the behaviour by the recipient, i.e., the target or victim, that is of importance. However, while, "all victims are targets of bullying, …all targets are not necessarily victims" (Nielsen et al, 2009, p.167; Muniz et al., 2020). For the purpose of this study, the term 'victim' will be used to describe individuals exposed to WPB behaviours, as the subjects' exposure to WPB will be self-reported.

### *1.2.3. Frequency*

The frequency of WPB is a key component of this phenomenon as WPB entails the regular enactment of negative treatment. Traditionally, bullying is understood as negative

social acts that are played out over time. It is this frequency that causes damage to victims, that is, the fear of being perpetually victimised (Nielsen & Einarsen, 2018). Consequently, the frequency of WPB distinguishes this behaviour from other counterproductive workplace behaviours such as workplace incivility. As such, the majority of WPB researchers do not view this phenomenon as a once off incident. In accordance with the above definition, the negative social acts of WPB should occur repeatedly, regularly and over a period of time for the label 'bullying' to be applied (Einarsen et al., 2011). There remains debate as to how long this duration should be, with a multitude of researchers determining six months to be the minimum duration for negative social acts to be considered WPB (Einarsen et al., 2011; Jacobs & De Wet, 2015). However, this notion has been opposed by another body of WPB researchers, who argue that single cases of extreme aggression should be considered bullying if the incident sufficiently and negatively impacts the wellbeing of the victim (Baldry et al., 2017; Tehrani, 2013). If the single incident leaves the victim in a "permanent state of fear and anxiety" of the perpetrator, it is argued that the incident be classified as WPB (Tehrani, 2013, p.5).

#### *1.2.4. Power Imbalance*

In attempting to provide further definitional clarity of WPB, the nature of power differentials can be explored. Power imbalance between the perpetrator and the victim may account for the argument that an extreme WPB incident can be classified as bullying (Tehrani, 2013). Power imbalance is the degree to which there is an unequal distribution of power between the perpetrator and bullying victim. The workplace constitutes an "area suffused by power relations" – where perceived as well as actual power differences exist (Hodson et al., 2006, p. 385 as cited in De Wet, 2014, p. 4). For WPB to materialise, it should possess a strong psychological component that is grounded in the idea of power differentials. Victims of WPB experience difficulty defending themselves as a result of perpetrators' formal and non-formal power over them (Branch et al., 2013). Therefore, bullying involves an imbalance of power where a more powerful individual (the perpetrator) carries out negative social acts against a less powerful individual (the victim) to undermine

and subjugate them. As such, conflicts involving two individuals of equal power will unlikely be regarded as bullying (Nielsen & Einarsen, 2018). Ultimately these power differentials can arise directly from an organisation's hierarchy as well as indirectly from perceived power differences (Baillien et al., 2017).

Individuals who are higher up within the organisational structure are awarded more power than those below them through positional power, resources power, knowledge power and delegated power (Baillien at al., 2017; Tehrani, 2013). *Positional power* stems from a perpetrator's role or position within an organisation whereby they are granted the power to carry out negative social acts under the guise of 'managing' or 'supervising' (Tehrani, 2013). Individuals with positional power often times make use of their *resources power*, where perpetrators have access to important resources such as contacts or technology necessary to complete certain work tasks. Power abuse can arise in such instances where perpetrators prohibit victims from obtaining resources essential to the achievement of organisational objectives (Tehrani, 2013). In a similar vein, *knowledge power* can be used to set up a victim for failure, where important information is withheld or delayed, prohibiting the victim from carrying out their job. *Delegated* or *association power* occurs when perpetrators use their relationships with a powerful second person to threaten and/or undermine a victim by proxy. Such associations allow for second hand power abuse (Wright, 2020).

Perceived power differences, on the other hand, can arise from a multitude of factors including physical attributes of the perpetrator (e.g. being muscular and larger in size), psychological power, personality power and relationship power (Baillien, et al., 2017; Tehrani, 2013). *Psychological power* occurs when the perpetrator possesses the ability to recognise and exploit a victim's psychological vulnerabilities to their detriment. Perpetrators may also possess *personality power* or presence which makes it difficult for victims to challenge their behaviours thereby allowing perpetrators to intimidate their victims (Tehrani, 2013; Zapf & Einarsen, 2005). *Relationship power* occurs when the perpetrator is able to gather support from co-perpetrators thereby bullying the victim in numbers or in a 'gang' (Baillien et al., 2017). Evidently, perceived power differentials can result in some employees

being perceived as more powerful than others irrespective of their organisational position. This lends to the discussion of the direction of WPB, in that it can be horizontal, vertical top-down or vertical bottom-up.

**1.2.4.1. The Direction of Workplace Bullying.** In the context of *horizontal bullying*, WPB can occur between employees on the same organisational level and usually involves a "gang" of individuals targeting a single victim (Bernstein & Trimm, 2016). Despite the high prevalence of horizontal bullying among employees within South African research, individuals are twice as likely to be subject to WPB on the part of their superiors (Cunniff & Mostert, 2012). This alludes to *vertical top-down bullying*, where superiors bully their subordinates, making use of their positional power within an organisation's hierarchy. This type of bullying is especially prevalent in organisations with a strict line of authority and control, perpetuating perceived high power differentials (Bernstein & Trimm, 2016). Superiors are awarded hierarchical control over employees to gain compliance and increase productivity. As a result, it is sometimes difficult to discern the behaviours which constitute reasonable management action and those which constitute WPB on the part of superiors (Omari & Paull, 2017). A 'perfect storm' or climate of fear is thereby created where WPB can flourish under the guise of reasonable management practices to hold employees accountable for their work standards (Beale & Hoel, 2011; Bernstein & Trimm, 2016). This is not to say, however, that subordinates cannot bully their superiors. *Vertical bottom-up bullying* is likely to occur when lower level employees organise themselves into groups (relationship power) thereby bullying higher-level employees (Bernstein & Trimm, 2016).

It ultimately is this power imbalance of perpetrators over victims that gives rise to repeated and regular negative social acts of WPB namely work-related, person-related and physical intimidating behaviours. WPB victims perceive themselves as helpless and inferior to the perpetrator, who they believe intends to harm them. This can impair a victim's ability to cope with the psychosocial and physiological effects of WPB behaviours leading to both individual and organisational consequences (Zapf & Einarsen, 2005). To understand WPB comprehensively, the resultant consequences of these behaviours need to be unpacked.

### 1.3. Consequences of Workplace Bullying Exposure

WBP is a counterproductive workplace behaviour with the potential to degrade employee wellbeing and to impair organisational functioning (Ones & Dilchert, 2013). Importantly, it is not only victims who are subject to the consequences of WPB. Research indicates that employees who witness WPB may also experience poor psychological and physical well-being (Dehue et al., 2012). While the experience of observers do not form part of the scope of this study, the impact that their exposure to WPB incidences has on their wellbeing, as well as on the organisation, remains an important area of investigation.

The consequences of WPB exposure or the 'Bullying-Outcome Relationship' has been investigated in relation to both individual outcomes as well as organisational outcomes and these are discussed below.

#### *1.3.1. Individual Outcomes*

Victims exposed to the negative social acts associated with WPB experience both psychosocial and well as physiological outcomes. These consequences can impair victims' day-to-day as well as workplace functioning. As a result, a plethora of studies and subsequent systematic reviews of the literature have been conducted to illustrate the individual harm caused by WPB behaviours (Anasori et al., 2020; Batchelor, 2019; Bartlett & Bartlett, 2011; Branch et al., 2013; Bernotaite & Malinauskiene, 2017; Bernstein & Trimm, 2016; Lever et al., 2019; Rai & Agarwal, 2016). This includes both the physiological and psychological consequences of WPB.

**1.3.1.1. Physiological Consequences.** From a physiological perspective, victims exposed to the stress of WPB can experience short-and long-term physiological health detriments such as headaches, fatigue, sleep disturbances, increased risk of cardiovascular disease, musculoskeletal issues, gastrointestinal problems, and substance misuse (Jacobs & De Wet, 2015; Lever et al., 2019).

While these physiological issues will affect the health of the victim, it is their psychological wellbeing that is especially impaired as a result of high stress-levels, devaluation, degradation, discreditation and humiliation (Fox & Stallworth, 2010).

**1.3.1.2. Psychological Consequences.** Poor psychological wellbeing can manifest in the development of strain, anxiety, burnout, depression, and lower self-perceptions. In extreme cases, WPB can result in suicidal thoughts and post-traumatic stress disorder (PTSD) (Fox & Stallworth, 2010; Jacobs & De Wet, 2013). PTSD symptoms associated with the experience of WPB include hyper-vigilance, exhaustion, fearfulness, continuous anger, memory impairment and insomnia (Lever et al., 2019). However, to prevent such extreme WPB psychological consequences, it is imperative to first address the more commonly observed psychological outcomes of WPB. As such, this study seeks to investigate the bullying-outcome of burnout. A description of this outcome as well as the mechanisms through which burnout arises as a result of WPB follows below.

***1.3.1.2.1. Burnout.*** WPB ultimately undermines the psychological health of bullying victims which can manifest as burnout, a frequently observed psychological consequence of WPB among employees (Trépanier et al., 2013). In a recent study conducted by Giorgi et al. (2016), employees subject to WPB were found to greatly experience the ill-effects of burnout compared to non-bullied individuals. Burnout is a psychological response to chronic work-related stress, characterised by feelings of energy depletion, depersonalisation and diminished sense of achievement (Maslach et al., 2001). To effectively understand how burnout and its components emerge and develop as a result of WPB, Hobfoll's (1989) Conservation of Resources (COR) Theory can be drawn upon.

***1.3.1.2.2. The Conservation of Resources Theory and Burnout.*** Research demonstrates the association between WPB and burnout's subcomponents; which constitute *emotional exhaustion*, *depersonalisation* and *lack of personal accomplishment*; as a result of resource depletion outlined in COR theory (Bernotaite & Malinauskiene, 2017; Hobfoll et al., 2018; Nauman et al., 2019). COR theory posits that individuals seek to obtain, retain, protect and foster resources that they centrally value (Hobfoll, 1989). Hobfoll (1989) recognises four types of resources, namely personal characteristics, objects, conditions and energies. This theory acts as a framework for resource loss prevention, the maintenance of existing resources and the provision of necessary resources for engaging in appropriate behaviours

(Hobfoll, 2001). Stress occurs when these resources are threatened with loss, are actually lost or when there is a failure to obtain these resources following significant effort. Therefore, resources act as key components when individuals appraise events as stressful and define their ability to cope with stressful situations (Hobfoll et al., 2018).

To counter resource loss, individuals apply resource conservation strategies in attempt to use available resources to successfully adapt to stressful situations. Successful adaptation results in the acquisition of new resources, replenishing individuals' resource pools. However, unsuccessful loss-prevention strategies can result in a cascading of ongoing resource loss or loss spirals (Hobfoll, 1989). Loss spirals make individuals increasingly vulnerable to further resource loss, as with each loss they are less capable of stress resistance aimed at conserving resources during the loss process (Hobfoll, 2001).

In line with the COR theory, WPB can be viewed as a workplace stressor that creates significant resource depletion as it places disproportionate demands on the psychological and physical resources of its victims (Nauman et al., 2019). Moreover, ongoing job demands have been found to deplete resources at a faster rate than resources can be replenished in the work environment (Freedy & Hobfoll, 1994). Thus, victims can experience loss spirals in attempt to cope with the resource loss associated with WPB. This can result in the bullying-outcome of burnout. Burnout is experienced by employees when there is actual resource loss, perceived threat of resource loss, inadequate available resources to meet work demands or when anticipated returns are not obtained after an investment of resources (Wright & Hobfoll, 2004). Resource depletion is thus a central facet of burnout and contributes to the manifestation of the burnout subcomponents among victims of WPB.

***1.3.1.2.3. Burnout Subcomponents.*** According to Maslach and Jackson (1986) burnout comprises three facets namely *emotional exhaustion*, *depersonalisation*, and *lack of personal accomplishment* all of which can be brought about in response to WPB. Employees exposed to WPB resort to conserving their remaining resources through the adoption of a defensive, withdrawal strategy or burnout.

*Emotional exhaustion* (EE) is the core concept of burnout, a state of physical and psychological fatigue that is a consequence of excessive demands placed on the individual (Anasori, et al., 2020). EE arises from resource depletion and can manifest when employees feel they no longer possess the necessary personal, emotional, social or status resources to predict, understand and control stressors (in this case, WPB) they are faced with (Wright & Hobfoll, 2004). EE can lead to feelings of emotional distress and overextension. Therefore, exposure to WPB and its excessive demands placed on the psychological and physical resources of the victim can result in employees experiencing prolonged strain or EE.

*Depersonalisation* (DP) is the interpersonal dimension of burnout and manifests as a form of psychological distancing (Maslach & Jackson, 1986). DP is expressed as a cynical and distant attitude, characterised by decreased motivation and idealism as well as irritability and anxiety (Garcia & Marizale, 2018). DP is an attempt to minimise the emotional resource loss brought about by WPB. In turn, this aids victims in conserving their available resources to cope with workplace stressors such as WPB. Thus, DP involves the utilisation of psychological distancing to safeguard victims' resources which can be depleted by WPB.

*Lack of personal accomplishment* (PA) occurs when individuals feel inadequate or incompetent and when they engage in negative self-evaluation. Diminished personal accomplishment is related to the phenomena of reduced self-efficacy and poor self-esteem (Wright & Hobfoll, 2004). There exists a relationship between self-efficacy and stress as situations are perceived as stressful when individuals believe they cannot successfully cope with them. Thus, WPB can perpetuate a lack of personal accomplishment among its victims as they lack the power (actual or perceived) to combat WPB negative social acts. Added to this, key factors of WPB, namely lack opportunities for personal and career development and a lack of social support, can exacerbate this dimension of burnout (Fiabane et al., 2013).

These individual WPB-outcomes, and burnout in particular, ultimately extend beyond the individual, as these negative social acts take place within an organisation. It is therefore

necessary to investigate the extent to which organisations are affected by WPB, to gain a holistic understanding of this construct.

### *1.3.2. Organisational Consequences*

The perniciousness of WPB lies in the fact that once an organisation is entrenched in a pattern of negative social acts, it can be problematic, if not impossible to disrupt this behaviour (Ariza-Montes et al., 2016). Upon detecting WPB, it may be too late to address such a counterproductive workplace behaviour and its effects on the organisation could be irreversible. Ultimately, Ariza-Montes et al. (2016, p.822) dispute that "bullying is a dangerous toxic gas that, similarly to the firedamp in mines, silently expands throughout the entire organization." WPB within an organisation can create a toxic culture of hypervigilance, fear and dread among its employees (Walsh et al., 2019). As a result, employees in such environments focus their energy onto protecting themselves against WPB negative social acts. WPB thus depletes their energy expended on organisational functioning and work-related tasks, further perpetuating experiences of burnout (Bartlett & Bartlett, 2011).

Organisations subject to such toxic WPB culture tend to see decreased job satisfaction, work engagement, motivation and organisational commitment among its employees. This, in turn, can present as apathy, increased absenteeism, decreased presenteeism, reduced organisational loyalty and productivity and increased turnover rates (De Wet, 2010; Jacobs & De Wet, 2013). WPB within an organisation therefore bears tremendous cost implications, specifically in relation to high turnover rates as skills, knowledge and experience is lost when talented employees leave an organisation (Glambek et al., 2014; Jacobs & De Wet, 2013). Added to this, recruitment and training and development of new employees is further costly for the organisation (Dehue et al., 2012). Moreover, further organisational costs can be incurred as a result of employee compensation claims in response to WPB exposure (De Wet & Jacobs, 2014). High turnover rates can also damage an organisation's reputation. Talented individuals may not want to work for such an organisation and positive public relations may be lost (De Wet & Jacobs,

2014; Fox & Stallworth, 2010). WPB is ultimately a violation of employees' human and labour rights which may then impact the public perceptions of the organisation.

WPB evidently bears tremendous individual physiological and psychological consequences, specifically burnout for victims, as well as social and organisational cost-implications (Ariza-Montes et al., 2016). If this counterproductive workplace behaviour is to be disrupted and/or eliminated to prevent such consequences, the factors that contribute to the emergence and development of WPB need to be examined. Thus, the Antecedent-Bullying relationship, which can arise from individual dispositions as well as from the organisational environment, warrants investigation.

### 1.4. The Antecedent-Bullying Relationship

The phenomenon of WPB is multidimensional and its contributing factors are complex in nature, as demonstrated by its definition (Ariza-Montes et al., 2016). Thus, WPB research draws upon a variety of frameworks in an attempt to understand the factors that drive its development and the factors that may mitigate bullying-outcomes. The dominant research perspectives of the factors influencing WPB are the *Individual Dispositions* perspective and the *Work-Environment Hypothesis* (Zapf & Einarsen, 2011). Importantly, these perspectives are not mutually exclusive. Findings in support of one perspective do not contradict the other. Rather, it is believed that WPB arises from and is perpetuated by the interaction between individual and environmental factors (Reknes et al., 2018).

#### *1.4.1. Individual Dispositions*

Nielsen and Knardahl (2015) provide three theoretical explanations as to why individual dispositions may be related to WPB: the target-behaviour mechanism, the negative perceptions mechanism and the reverse-causality mechanism. According to the *target-behaviour mechanism*, employees possess dispositions that may contradict individual and/or group expectations and social norms, may underperform and/or irritate others. As a result, targets may attract bullying behaviours from others (Nielsen & Knardahl, 2015). The *negative perceptions mechanism,* on the other hand, asserts that some individuals perceive events more negatively than others. As a result, victims of WPB are more likely to deem any

negative social acts as WPB compared to other individuals (Nielsen & Knardahl, 2015). This argument lends to the target-victim distinction made earlier whereby victims perceive more harm and WPB intent in interactions. Finally, the *reverse causality mechanism* asserts that individual dispositions should be considered outcomes, rather than antecedents of WPB. This mechanism arises from the contextualist perspective, where it is argued that individual dispositions are influenced by environmental factors (Glasø et al., 2009). As such, exposure to a traumatic stressor such as WPB, can result in changes in an individual's disposition.

Ultimately, the individual dispositions of personality and coping have been thoroughly investigated as factors contributing to WPB and can be described in relation to the above theoretical explanations. Although individual dispositions fall beyond the scope of this study, it is still necessary to understand the wide range of factors contributing to WPB.

**1.4.1.1. Personality.** Personality refers to individual differences in characteristic patterns of behaving, thinking, and feeling. Studies have investigated the personality traits of both victims and perpetrators as antecedents of the WPB relationship (Branch et al., 2013; Muniz et al., 2020). The Big Five (or Five-Factor Model) is the most frequently used measure to determine the relationship between WPB and personality as a result of its cross-cultural validation (O'Farrell et al., 2018). The Big Five personality traits include *neuroticism*, *extraversion*, *agreeableness*, *openness to experience* and *conscientiousness*. A plethora of studies have demonstrated that targets of WPB are more inclined to demonstrate high levels of neuroticism (Glasó et al., 2007; O'Farrell, 2018; Nielsen & Knardahl, 2015; Reknes et al., 2019). In line with the target-behaviour mechanism, employees high in neuroticism are highly anxious and easily upset, which may be interpreted as provocative, eliciting negative social acts by others (Nielsen & Knardahl, 2015). Added to this, employees' high levels of neuroticism may exacerbate the negative perceptions mechanism. Accordingly, individuals with high trait anxiety and the Type A personality are more likely to perceive themselves as victims of WPB compared to more emotionally stable employees (Nielsen & Knardahl, 2015; Reknes et al., 2019). Additionally, in line with the reverse causality mechanism, employees

who fall victim to WPB behaviours can become more nervous and tense over time (O'Farrell, 2018).

However, the results pertaining to the additional four personality factors from the Big Five Model in relation to WPB targets remain inconclusive. Glasø et al. (2007) determined that targets of WPB demonstrate low levels of extraversion, agreeableness and conscientiousness compared to non-targets. Moreover, the relationship between the openness to experience trait and bullying targets has not been determined. While recent evidence demonstrates that WPB targets demonstrate lower levels of extraversion (Reknes et al., 2019), this relationship has not always been demonstrated within the literature (Coyne, et al., 2003). At the same time, Nielsen and Knardahl (2015) claim that targeted employees tend to be more conscientious, which contradicts the findings of both Glasø et al. (2007) and Coyne et al. (2003) who argue the opposite. In this regard, overly conscientious individuals may exceed performance norms. These employees may therefore be targeted by their work peers who feel that their performance is being "outshined" by the overly conscientious individual. Thus, both findings may demonstrate the target-behaviour mechanism in that highly conscientious individuals may irritate others, while individuals low in conscientiousness may underperform. Targets of WPB have also been shown to demonstrate lower levels of agreeableness (Glasø et al., 2007; Nielsen & Einarsen, 2007). This aligns with the negative perceptions mechanism, in that employees low in agreeableness may interpret negative interpersonal interactions as bullying compared to those demonstrating high levels of agreeableness (Nielsen & Knardahl, 2015). Added to this, exposure to WPB may result in decreased agreeableness over time, illustrating the reverse causality mechanism (Podsiadly & Gamian-Wilk, 2017).

The personality traits of the perpetrator have also been investigated. According to Pallesen et al. (2017), perpetrators of WPB demonstrated high levels of neuroticism, lower levels of agreeableness and lower levels of conscientiousness compared to bullying targets. High levels of neuroticism tend to be related to incidents of impulsive (angry, expressive or irritable) aggression (Gauthier et al., 2009 as cited in Pallesen, 2017). This is in line with

additional research demonstrating that perpetrators of WPB demonstrate high levels of aggressive traits (Matthiesen & Einarsen, 2007; Pallesen et al., 2017; Pilch & Turska, 2015). Research has also indicated that there are a “Dark Triad” of personality traits namely narcissism, psychopathy and Machiavellianism which have been linked to bullying among perpetrators (Baughman et al., 2012). Traits associated with this “Dark Triad” have been determined to predict perpetrator’s WPB behaviours including aggression, manipulation and callousness (Tokarev et al., 2017).

Evidently, certain personality traits underpin the emergence of WPB in relation to both victims and perpetrators. While these factors provide some insight into the individual dispositional factors contributing to WPB, it is necessary to investigate coping strategies of bullied individuals as these strategies especially affect the bullying-outcome relationship.

**1.4.1.2. Coping.** The interaction between a victim’s response to the stressful events of WPB and their personal tendency to apply certain coping strategies can influence the bullying-outcome relationship, attenuating or amplifying WPB’s consequences. Coping refers to ongoing behavioural and cognitive efforts to manage threats and demands that are perceived by the individual to be taxing or exceeding their personal resources (Lazarus & Folkman, 1984). Accordingly, coping with bullying entails a victim’s efforts to reduce, tolerate or master the demands created by stressful WPB interactions. Importantly, there exists a relationship between coping, individual dispositions and workplace characteristics. WPB arises in different contexts and takes the form of various negative social acts. The frequency and duration of these behaviours occur over differing periods of time and individuals possess unique personality traits, values as beliefs. WPB coping strategies can therefore be person and context specific (Dehue et al., 2012).

The person and context specificity of coping strategies can be described in relation to Lazarus and Folkman’s (1984) Cognitive Theory of Stress and Coping. This theory posits that individuals exposed to a stressful event evaluate the potential stressful situation in relation to opportunity versus threat and the extent to which the stressful situation can be managed. Such an evaluation is grounded in the individual’s assessment of their (coping)

resources to support the tendency to apply a certain coping mechanism. These coping resources relate to the individual (internal resources) or the work environment (external resources). Furthermore, it is argued that efficient coping mechanisms improve functioning whereas inefficient coping mechanisms can result in increased levels of strain and distress (van den Brande et al., 2018).

WPB-related coping strategies have been extensively examined in the literature. Jóhannsdóttir and Ólafsson (2004) identified four bullying coping strategies specifically *seeking help*, *assertiveness*, *avoidance* and *doing nothing*. These coping strategies fall under two overarching categories – active or passive strategies. Accordingly, the active strategies of seeking help and assertiveness entail overt behaviours by a victim to mitigate or manage WPB encounters (Dehue et al., 2012; Jóhannsdóttir & Ólafsson, 2004). Importantly, active strategies are employed when there are structures and resources in place during the first WPB encounters with the perpetrator to assist in the management of WPB (Bernstein & Trimm, 2016; Dehue et al., 2012). *Seeking help* entails the active request for assistance from others while *assertiveness* entails the individual relying on their own coping resources to stand up to the perpetrator (Bernstein & Trimm, 2016). Conversely passive strategies are indirect actions engaged in to manage or mitigate WPB encounters. Victims of WPB believe that the adoption of passive strategies will result in the perpetrator losing interest and eventually tiring out, bringing an end to the bullying behaviours. As such, avoidance and doing nothing are considered to be passive strategies (Bernstein & Trimm, 2016). *Avoidance* entails escaping from the perpetrator while *doing nothing* occurs when the victim does not react to the bullying behaviour, either pretending not to be bothered by it and/or ignoring the fact that the bullying is taking place.

While there continues to be extensive debates as to which coping strategy is most effective within a specific situation, there is general consensus active strategies are more effective than passive strategies (van den Brande et al., 2018). In relation to individual bullying-outcomes, passive strategies can diminish an individual's well-being, leading to feelings of helplessness, depression and burnout. Added to this, victims employing passive

strategies are more likely to be absent or to leave the organisation, increasing absenteeism and turnover organisational outcomes (Dehue et al., 2012; Jóhannsdóttir & Ólafsson, 2004). However, while active strategies are more efficient in combating the impact of WPB, the power imbalance between the victim and perpetrator of WPB determines whether these strategies can be employed (Bernstein & Trimm, 2016). Additionally, this is not to say that active strategies are effective in their entirety. For example, Bernstein and Trimm (2016) argue that assertiveness can result in escalated aggression, worsening the situation. Assertiveness on the part of the victim may infuriate the perpetrator, resulting in destructive and excessively confrontational interactions. This may lead to a cycle of WPB behaviours and as a result, aggression between the victim and perpetrator (Bernstein & Trimm, 2016).

Evidently, the efficiency of WPB coping strategies depends upon both the person and context. To further understand the context-specific factors influencing the WPB relationship, the Work Environment Hypothesis should be explored.

#### *1.4.2. The Work Environment Hypothesis*

The Work Environment Hypothesis has been the dominating framework in studies investigating workplace characteristics as factors contributing to and exacerbating WPB (Skogstad et al., 2011). This hypothesis postulates that WPB is shaped by the prevailing job design and social environment within an organisation (Leymann, 1996 as cited in Reknes et al., 2018). When stressful work environmental conditions proliferate an organisation, WPB flourishes (van den Broeck et al., 2011). Accordingly, several interrelated processes have been established through which stressful work environments conjure feelings of frustration and conflict. This can lead to employees either becoming victims or perpetrators of WPB (Baillien et al., 2009). Importantly, these processes do not constitute simple causal relationships and the figures below are diagrammatical illustrations derived from qualitative research. These processes include *inefficient coping with the frustrations* (strain) of a stressful working environment, which tends to be passive for WPB victims and active for perpetrators as well as *interpersonal conflicts* (Baillien et al., 2009).

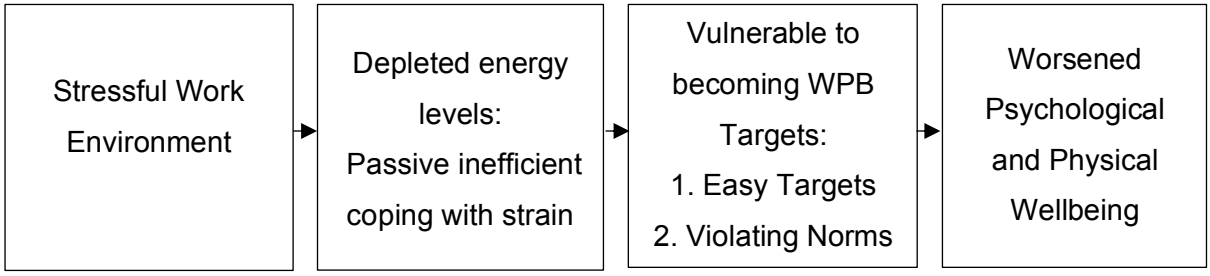
**1.4.2.1. Passive Inefficient Coping.** This process posits that WPB can arise when employees passively and inefficiently cope with frustrations, stemming from a stressful working environment. In this sense, employees can become victims of WPB as they develop into '*easy targets*' or because they *violate established organisational norms* due to their depleted energy levels. This is a result of ineffective coping with work-related strain.

Stressful working environments can drain employees' psychological and/or physical resources, depleting their energy levels as a result of job strain (Bakker & Demerouti, 2007; Tims & Bakker, 2010). WPB flourishes in high-strain environments as exhausted employees become 'easy targets.' These employees offer little resistance against WPB because of their depleted energy levels and their wellbeing, in turn, is impaired (van den Brande et al., 2018; van den Broeck et al., 2011).

At the same time, exhausted employees exposed to job strain may violate established organisational norms to cope with such stressful environments. In violating organisational norms, others may adopt negative attitudes towards these employees who may therefore be victimised. These employees become vulnerable to the retaliation from others, potentially in the form of WPB (van den Brande et al., 2018). This pathway to WPB, through strain, aligns with the theory of Social Interactionism (Felson & Tedeschi, 1993). This theory posits that experiences of work-related strain increase the probability of an employee violating work-related norms and social expectations. In turn, the prospect of other organisational members negatively reacting towards the violating individual is increased. WPB may therefore be an intentional response for social control over norm-violating behaviours (Felson & Tedeschi, 1993).

**Figure 1.1.**

*The Passive Ineffective Coping Process: Vulnerability to Becoming WPB Targets*



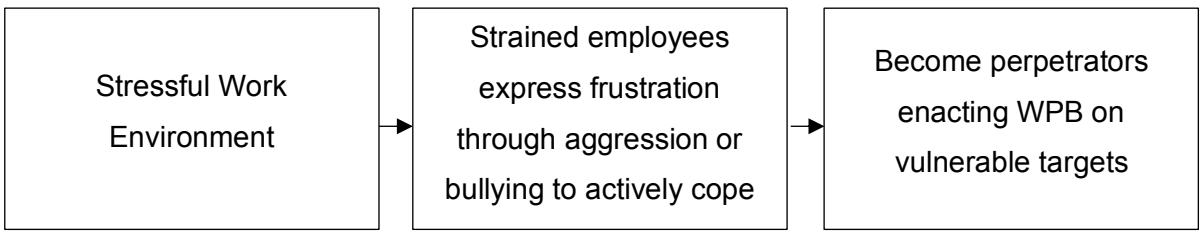
**1.4.2.2. Active Inefficient Coping.** Active inefficient coping with frustrations as a result of a stressful working environment can lead to the perpetration of WPB. Strained employees can also become WPB perpetrators in attempt to express their frustration or to salvage control over their stressful work environments (Baillien et al., 2009). In such environments, employees experience immense frustration. These individuals may therefore cope with their frustrations by bullying others (Baillien et al., 2009; van den Broeck et al., 2011).

This perspective is underpinned by the Frustration-Aggression Hypothesis whereby frustration increases an individual's tendency to act aggressively (Dollard et al., 1939). The underlying premise of this hypothesis is that of Freud's conceptualisation of catharsis, whereby individuals need to express emotion to reduce emotion (Denzler & Förster, 2012). As such, individuals experiencing feelings of frustration need to engage in activity to release it. According to Dollard et al. (1939), the founders of the Frustration-Aggression Hypothesis, frustration will result in activities involving aggression to allow for catharsis. However, the activity to release this aggression cannot always be directed at the source of an individual's frustration (Denzler & Förster, 2012). Therefore, individuals adopt alternative mechanisms to release their aggression which may be beneficial in nature such as mindfulness or detrimental such WPB behaviours in the context of this study.

The Revised Frustration Aggression Theory (Berkowitz, 1989) best explains this notion in that a stressful work environment may elicit negative affect and strain. This may be relieved by directing negative social acts (or WPB behaviours) towards one or more colleagues.

**Figure 1.2.**

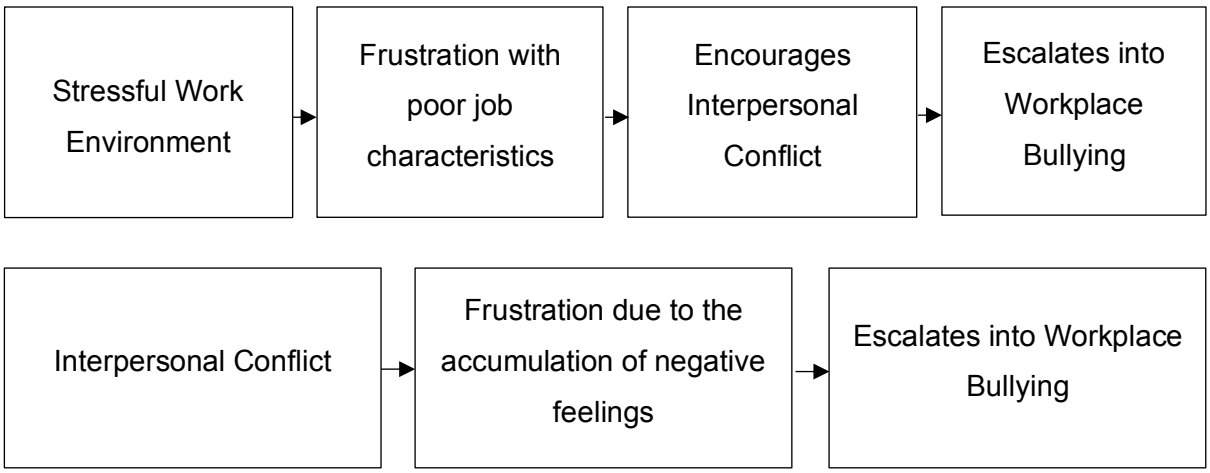
*The Active Ineffective Coping Process: Vulnerability to Becoming WPB Perpetrators*



**1.4.2.3. Interpersonal Conflict.** The next process relates to the emergence of WPB following interpersonal conflicts (van den Broeck et al., 2011). Stressful work environments and resultant frustrations may encourage interpersonal conflicts (Baillien et al., 2009). This conflict, if not successfully resolved, may result in a pattern of negative behaviour, which may escalate into WPB. Frustrations with stressful working environments and interpersonal conflicts are thus closely related (Baillien et al., 2009). Frustrations with poor work environments may manifest as interpersonal conflict between employees which in turn escalates into WPB. On the other hand, interpersonal conflict may result in frustration through the accumulation of negative feelings accompanying these conflicts which may then escalate into WPB (Baillien et al., 2009). Diagrammatical representations of the potential interactions between stressful working environments and interpersonal conflicts are illustrated in Figure 1.3.

**Figure 1.3.**

*The Interpersonal Conflict Processes: Frustration and Workplace Bullying*




**1.4.2.4. Occupational Stress Research.** Evidently, stressful work environments contribute to the emergence of WPB and can play a role in its perpetuation. To further gain a comprehensive understanding of the Work Environment Hypothesis, it is necessary to investigate how such stressful work environments may arise at an organisational level, team level, and job level and the resultant consequences of such occupational stress.

On an organisational and team level, organisational culture, climate and hierarchy may contribute to the emergence of WPB. Organisations where task-oriented and goal-oriented leadership styles prevail, accompanied by hierarchical power relations and directive communication, experience greater levels of WPB. Added to this, a lack of anti-bullying policies, a culture of gossip, organisational change and poor communication can perpetuate WPB (van den Broeck et al., 2011). While these factors evidently contribute to a stressful working environment, the focus of occupational stress is grounded in the job level.

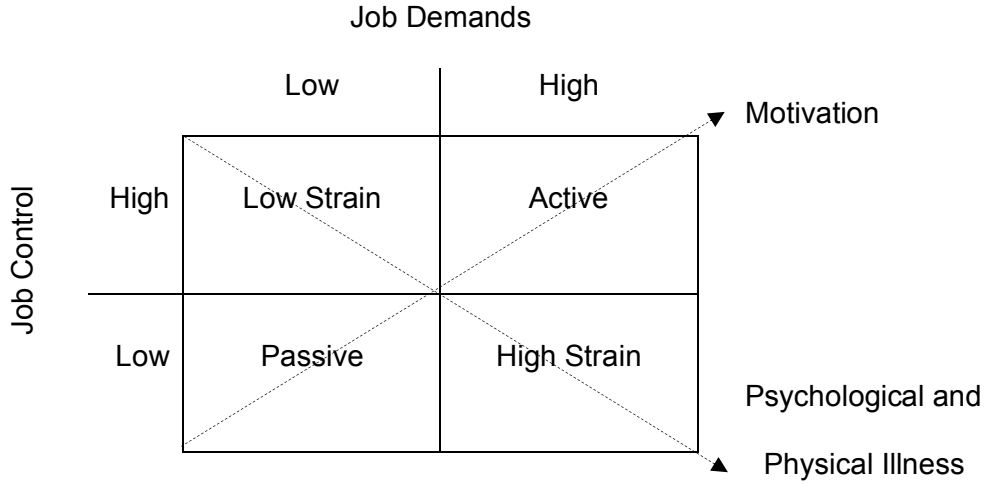
A number of occupational stress models have been developed to describe the job characteristics that may contribute to such stressful work environments including work overload, job insecurity, a high degree of emotional and cognitive demands, low task autonomy, lack of control, role ambiguity, a lack of workplace social support (from co-workers, supervisors and/or organisational policies) and a lack of task specificity (Branch et al., 2013). It is important to unpack these models to understand how they may give rise to stressful working environments and in turn, how they may relate to WPB and strain outcomes. These models include the Job Demands Control model (JDC), the Job Demands Control Support Model (JDC-S) and the Job Demands-Resources Model (JD-R) (van den Broeck, 2011). A description of the three models follows below.

***1.4.2.4.1. Job Demands-Control Model.*** Karasek's (1979) Job Demand Control (JDC) Model postulates that excessive job demands are associated with higher levels of psychological strain. Moreover, the effect of these demands are impacted by an employee's perception of control or decision-making latitude over their work environment (Karasek, 1979). The JDC model predicts that jobs characterised by high demands and low control place strain on employees, creating occupational stress. This stress can manifest as psychological or physical illness. This prediction is referred to as the *strain hypothesis*. Additionally, job control is postulated to alleviate the relationship between job demands and job strain where greater decision-making latitude allows for the development of skills and motivation – the *buffer hypothesis.*

Karasek (1979) distinguished between four types of jobs based on the specific combination of job demands and job control (see Figure 1.4). Employees with *high strain jobs* are subject to high job demands and low job control over how to complete such demands, resulting in the greatest strain-related outcomes. The JDC model's *strain hypothesis* has been applied to a wide range of outcomes such as physical illness (e.g., blood pressure and muscle tension), poor psychological wellbeing (e.g., anxiety, depression and burnout) and behavioural outcomes (e.g., work performance and turnover intention) (Notelaers et al., 2013). Conversely, employees with *low strain jobs* (low job demands and high job control) are less susceptible to strain-related outcomes. *Active jobs,* or those high in job demands and high in job control, result in greater levels of personal growth and intrinsic motivation for learning. Finally, *passive jobs* (low job demands and low job control) result in a decrease in overall activity level and thus motivation as a result of role underload (Pelfrene et al., 2002). Within the WPB context, research has indicated that jobs characterised by high demands and low control i.e., *high strain jobs,* can create an environment in which bullying is fostered (Baillien et al., 2011).

**Figure 1.4.**

*The Job Strain Model (Adapted from Karasek, 1985)*

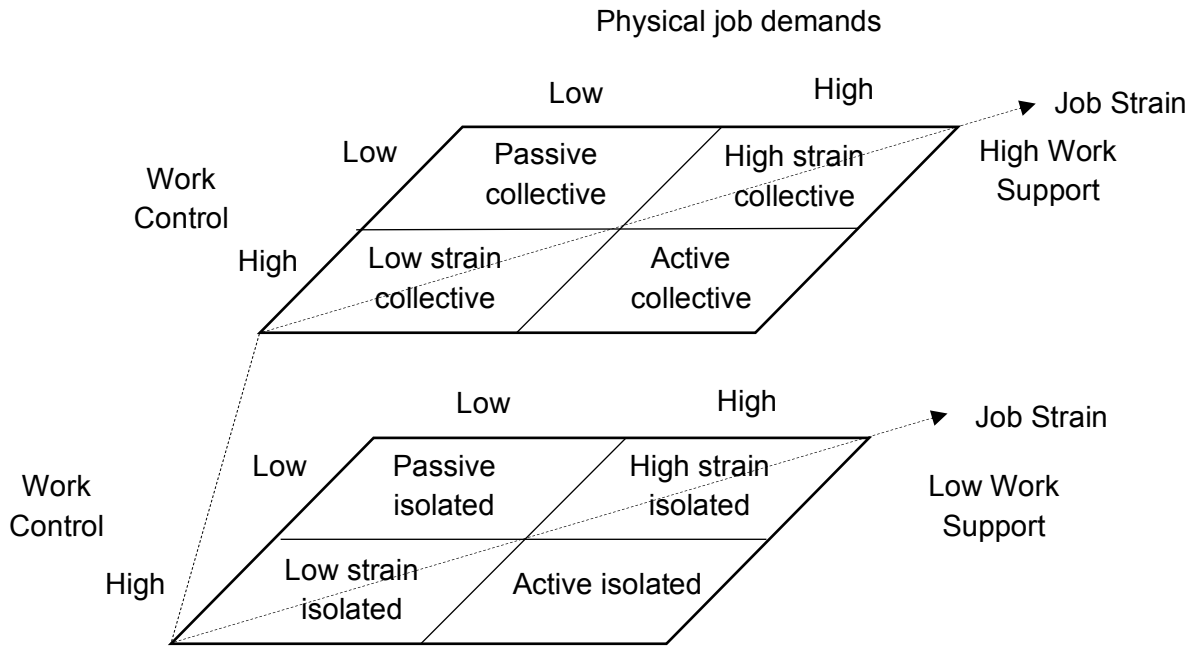



***1.4.2.4.2. Job Demands-Control-Support Model.*** As the influence of the psychosocial work environment on job strain became apparent, it was recognised that the JDC model needed to be expanded to include social support in the workplace (Johnson &

Hall, 1988; Theorell et al., 1990). The Job Demand-Control-Support Model (JDCS) breaks down job demand and strain characteristics into both isolated and collective conditions (see Figure 1.5). Two hypotheses have emerged from this model, the *iso-strain hypothesis,* and the *buffer hypothesis*. The *iso-strain hypothesis* proposes that when job demands are high, job control is low and social support is low, employees will experience the greatest job strain (Jones et al., 1998). The *buffer hypothesis* suggests that increased job control (like the JDC) and increased social support can mitigate the negative effects of high job demands on workplace wellbeing (Karasek & Theorell, 1990). This is in line with the stress buffering model of Social Support. This model posits that social support aids employees in coping with high job demands, thereby protecting them against the deleterious effects of a stressful working environment (Sargent & Terry, 2000). Within this model research has shown that high demands, low control and low support i.e., the *iso-strain hypothesis,* would similarly create an environment in which WPB could become prevalent (Goodboy et al., 2017).

**Figure 1.5.**

*The Job Demand Control Support Model (Adapted from Karasek & Theorell, 1990)*



However, the JDC and the JDCS have been criticized for their simplicity as they fail to capture the complexity of the modern work environment (Bakker et al., 2005). Both models empahsise the quantitative aspect of job demands in the form of workload and not the qualitative side of emotional job demands. Furthermore, job control is not the only resource accessible for coping with high job demands. While the JDCS introduced the job resource of social support, there exists different forms of social support that should be investigated together with additional job resources (Bakker et al., 2003). Due to these limitations, a model that acknowledges and can measure the many job demands and job resources that accompany the diverse workplace settings of today is warranted. In this context, the Job Demands-Resources (JD-R) model is a theoretical framework that can be applied to a broad spectrum of occupational settings while still incorporating aspects of the JDC and JDCS.

***1.4.2.4.3. Job Demands-Resources Model.*** The JD-R model integrates the research traditions of work-related stress and motivation to predict, understand and explain employee well-being and working efficiency (Bakker & Demerouti, 2007). This heuristic model assumes that in every job there are specific job demands and job resources associated with adverse employee wellbeing and organisational outcomes (Ariza-Montes et al., 2016). While job demands are inherent in the workplace, excessive demands may impair employees' health should they lack the 'tools' to cope with and manage such demands. These 'tools' can take the form of job resources, which can strike a delicate balance with demands to protect the employee from damaging stress reactions. This balancing act can result in two interrelated processes, the *health impairment process* which manifests as burnout and the *motivational process* which is expressed through work engagement (Bakker & Demerouti, 2007).

*Job demands* are the psychosocial, physical or organisational characteristics of a job that impose unrelenting physical and/or psychological effort or skills (Bakker, Demerouti, & Verbeke, 2004). As such, job demands are taxing on an employee's energetic capacity and

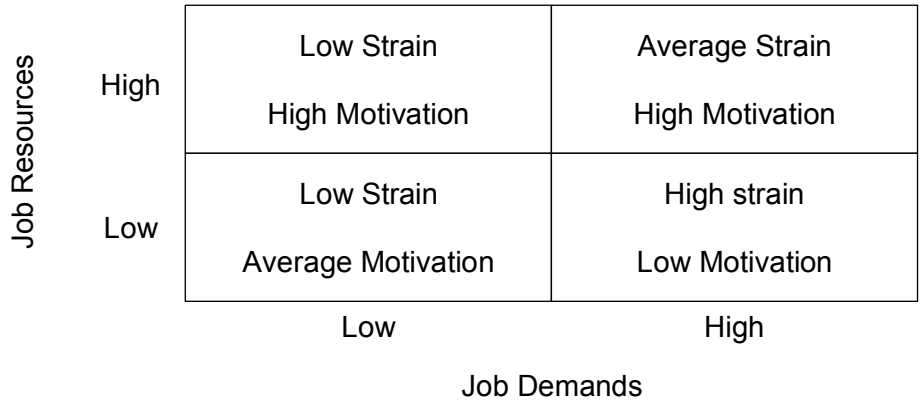
are associated with physical and psychological costs. Job demands have the potential to evoke strain if they exceed an employee's personal capacity, or their personal resources to cope with these demands. Job demands ultimately deplete the energetic process of employees, which can manifest as burnout, the *health impairment process* (Bakker & Demerouti, 2007).

*Job resources* are job characteristics that positively impact the energetic process of employees, thereby reducing work-related strain (Tims & Bakker, 2010). These resources contribute to the motivational processes associated with achieving work goals, stimulating personal growth, development, and learning (Bakker & Demerouti, 2007). They are the individual and/or organisational physiological and social characteristics that help employees diminish job demands and their associated outcomes. Job resources can take the form of job security, supervisor and co-worker support, participation in decision making and job autonomy (Bakker & Demerouti, 2007). The availability of job resources ultimately leads to work engagement and organisational commitment, the *motivational process* (Bakker & Demerouti, 2007).

Although these job characteristics originate distinct processes, job demands and job resources have been found to interact when determining strain and motivation, the *interaction process* which is illustrated in Figure 1.6. Job resources possess the potential to lessen the impact of job demands on job strain, mitigating its harmful effects (Ariza-Montes et al., 2016; Bakker & Demeroti, 2007). Employees working under high job demand conditions benefit from increased exposure to job resources. Therefore, when job demands and job resources are both high, job strain is average, and motivation is high (Bakker & Demerouti, 2007). Conversely, job demands can deplete job resources thereby perpetuating job strain and poor psychological and/or physical well-being. Ultimately, job demands amplify importance of job resources, where resources have a greater impact on motivation when demands are high (Ariza-Montes et al., 2016). Thus, high job demands and low job resources can result in high strain and low motivation, negatively impacting well-being.

**Figure 1.6.**

*Interaction between Job Demands & Resources (Adapted from Bakker & Demerouti, 2007)*




**1.4.2.5. The Job Demands-Resources Model and Workplace Bullying.** The JD-R is a sound theoretical model that may ultimately account for the link between the bullying-outcome of burnout and the antecedent-bullying relationship in relation to the Work Environment Hypothesis. This model closes the gap between the theoretical assumptions and empirical findings in the WPB domain (van den Broeck et al., 2011). The JD-R can be used to illustrate the job characteristics associated with WPB (Baillien et al., 2009), as well as the resultant burnout health impairment process of this workplace stressor. The JD-R is thus appropriate to the present study in which burnout is specifically examined in relation to WPB among teachers. South African teachers are exposed to particularly stressful work environments comprising increasing job demands amidst a lack of job resources (Batchelor, 2019; De Vos & Kirsten 2015; De Wet & Jacobs, 2014; Jacobs & De Wet, 2013). These demands and lack of resources have severely inimical implications for teacher wellbeing, with WPB becoming rife amongst teachers. As a result, South African teachers are ultimately becoming disengaged and are experiencing high levels of burnout (Batchelor, 2019). The context in which the WPB-burnout relationship occurs in South Africa will be examined below in accordance with the JD-R model.

## 1.5. Contextualizing Workplace Bullying among Teachers

The previous sections of this literature review have outlined defintions and central features of WPB, the bullying-outcome individual and organsiation consequences and the

factors contributing to the emergence of WPB in relation to the JD-R. The aim of the following section is to position WPB and the JD-R Model within the context of the teaching profession, and more specifically within the context of South African teachers. In addtion, this section will explore in-depth how WPB is implicated in the delterious aforementioned outcome of burnout.

Global research indicates that the education sector experiences some of the highest levels of WPB incidences (Bernotaite & Malinauskiene, 2017). WPB is especially problematic in organisations where social relations are dense. Thus, schools, as organisations, constitute an ideal site for WPB to take place as a result of their hierarchical structures, active power dynamics and social relations (Lines, 2008 as cited in De Vos & Kirsten, 2015). Moreover, the teaching profession has experienced a deterioration of its traditional social status and prestige in Western countries. These contextual and organisational issues are especially pertinent to the South African education system. It is therefore critical to investigate WPB among South African teachers. They are the driving force of conduct and values for their learners and the quality of their teaching is ultimately affected by their well-being (Ariza-Montes et al., 2016).

### *1.5.1. Workplace Bullying among South African Teachers*

Limited research exists that investigates why WPB among teachers within South African schools occurs, despite studies indicating that South African teachers are three times more likely to experience WPB than their peers (Jacobs & De Wet, 2013). Teacher-targeted WPB research in South Africa reveals that teachers are exposed to WPB on a number of levels, including co-worker-on-teacher bullying and learner-on-teacher bullying as well as principal-on-teacher bullying (De Vos & Kirsten, 2015). The following negative acts have been frequently reported by victims of WPB in South African schools namely undermining of professional status, isolation, constant performance evaluation, work overload, perpetrators constantly finding mistakes or errors in victims' work, victims being forced to complete a job that negatively affects their self-confidence and the removal of

organisational support (Batchelor, 2019; De Vos & Kirsten 2015; De Wet, 2010; De Wet & Jacobs, 2014; Jacobs & De Wet, 2013).

To understand why WPB is so prevalent among South African teachers, it is necessary to investigate the job characteristics of South African teachers from a JD-R perspective. The South African education system has undergone organisational, political and societal reforms on a continuous basis. Ineffective changes have been made to government policies, resulting in organisational chaos as well as greater job demands on teachers without supplying the necessary job resources (Jacobs & De Wet, 2013). Teacher-targeted WPB is likely to occur in schools where organisational chaos reigns. WPB may ultimately stem from passive and/or active inefficient coping with such stressful environments, interpersonal conflicts and organisational culture and climate. This includes incompetent and toxic leadership and a lack of accountability, transparency and fairness – characteristics associated with South African schools (De Wet, 2010).

### *1.5.2. Factors Contributing to Workplace Bullying Among South African Teachers*

The South African teaching profession is under severe job strain, rooted in accentuated demands in the absence of job resources (De Wet, 2010). These stressful environments often contribute to WPB as a result of worsened interpersonal relationships which stem from inefficient coping with frustrations (Bernotaite & Malinauskiene, 2017). To understand the factors contributing to the emergence of WPB in South African schools, it is especially important to discuss the introduction of the quintile system.

The quintile system, which was implemented in response to unequal access to quality public schooling, was introduced to amend the South African Schools Act (84 of 1996) (Department of Education, 2005). South African schools are categorised into 5 groups (quintiles) based on the relative wealth of the surrounding community. Quintile 1 schools are based in the poorest communities while quintile 5 schools serve the wealthiest communities. Moreover, quintile 1, 2 and 3 schools are prohibited from charging fees, and are thus referred to as no-fee schools. Teachers in under-resourced schools, particularly quintiles 1, 2 and 3, are expected to meet national performance outcomes irrespective of the excessive

demands and lack of resources they face. Ultimately, it is in schools that are very poorly resourced “where despair and disrespect prevail, teachers turn on one another” (Sowetan, 2014, p.1). South African teachers working in such under-resourced schools are subject to high pupil-teacher ratios and thus high workload. Added to this, these teachers are exposed to problematic student behaviour, exacerbated by surrounding environments fraught with lawlessness, violence and economic despair (Ncontsa & Shumba, 2013). The aforementioned government policy changes in the education sector have also led to teacher role ambiguity due to constant syllabus and scope changes. Moreover, South African teachers lack the necessary job resources to counter such high job demands. These include a lack of career development or promotional opportunities, an inability to participate in decision making and autonomy due to government policy changes as well as a lack of social support (Batchelor, 2019; Van Tonder & Fourie, 2015).

This discussion of the quintile system is not to say that bullying does not occur amongst teachers in better resourced schools. Rather, it is more likely that in poorly resourced schools where demands are high and resources are low, bullying between teachers will flourish. This particular finding was observed in the study conducted by Batchelor (2019). Further to this, the negative social acts associated with WPB among teachers may be perpetuating the high job demands and lack of job resources they experience. The question therefore arises as to whether job characteristics are related to WPB among South African teachers. As such, the following hypotheses are derived:

*Hypothesis i:* Job demands are positively related to workplace bullying among teachers.

*Hypothesis ii:* Job resources are negatively related to workplace bullying among teachers.

### *1.5.3. Burnout in Bullied Teachers*

In line with the COR theory, prolonged exposure to stressors such as WPB can lead to resource depletion (Hobfoll, 1989). In attempt to conserve one’s resources, victims of WPB may adopt a defensive, withdrawal strategy or burnout which comprises three

subcomponents namely emotional exhaustion, depersonalisation and a lack of personal accomplishment (Bernotaite & Malinauskiene, 2017). Studies investigating the effects of WPB on teachers have demonstrated findings associated with these three subcomponents.

**1.5.3.1. Emotional Exhaustion.** Teachers exhibit EE when they feel they can no longer extend themselves to learners as they once did due to psychological depletion (Maslach & Jackson, 1986). This psychological depletion is exacerbated by WPB among teachers. In a study conducted by Astrauskaitė et al. (2010), higher levels of WPB were related to higher EE among teachers. Furthermore, high levels of EE were found amidst 25.6% of bullied teachers in Lithuania (Bernotaite & Malinauskiene, 2017). Batchelor (2019) further reported that South African teachers described being emotionally and physically drained as a result of the WPB they experienced.

**1.5.3.2. Depersonalisation.** Additionally, teacher victims of WPB have been found to be less attached to their work (Jacobs & De Wet, 2015). Hoel et al. (2011) argue that reduced commitment is often used as a coping strategy by victims of WPB. This in turn may affect the productivity and performance of victims and can lead to DP among teachers. A third of the teachers in Jacobs and De Wet's (2013) study indicated that they felt less attached to their work. Furthermore, over 40% of teachers in De Vos's (2013) study revealed they lost passion for the teaching profession. Bullied teachers ultimately exhibit a detached attitude towards their learners' needs. This relationship was also described in Batchelor's (2019) study. South African teachers expressed that their exposure to WPB impacted their motivation to "do their best within the schooling context" (Batchelor, 2019, p. 73). Ultimately, when WPB occurs, victims retreat to look after themselves and in teachers this can come in the form of DP (De Vos, 2013).

**1.5.3.3. Lack of Personal Accomplishment.** Teachers affected by WPB report lower levels of PA (Mościcka-Teske et al., 2014). This, in part, may be a result of a lack of career development and promotion opportunities. Within the South African teaching profession, there is limited assurance that career mobility will occur through hard work and dedication. While the Employment of Educators Act (1998) classifies different ranks and

grades for teachers, in reality there exists limited promotional opportunities as was echoed in Batchelor's (2019) study. Participants expressed feelings of frustration and dissatisfaction due to scarce and sometimes rigged promotional positions (Batchelor, 2019). Moreover, perpetrators of WPB in schools are often in more senior positions and possess coercive powers such as the ability to deny professional development opportunities and promotion (De Wet, 2014). As a result, the way in which perpetrators exert power over their victims is to inhibit their personal accomplishments. Additionally, teachers exposed to WPB have been found to question their self-worth, doubting their professional abilities (Batchelor, 2019). The effects of WPB on the self-worth and thus perceived PA of WPB victims have been demonstrated amidst a multitude of professions (Batchelor, 2019; De Wet, 2010; Iglesias & Becerro de Bengoa Vallejo, 2012; Van Schalkwyk et al., 2011).

The possible interconnections between WPB and burnout begs the question as to whether WPB among the South African teachers under study is related to burnout. The above discussion leads to the following hypothesis.

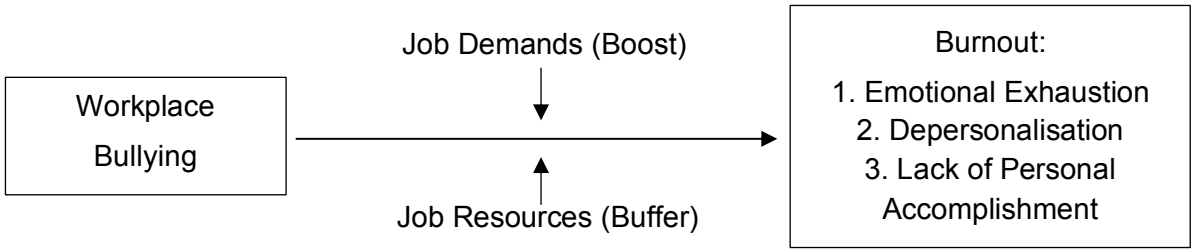
*Hypothesis iii:* Workplace bullying among teachers is positively related to burnout, comprising emotional exhaustion, depersonalisation and lack of personal accomplishment.

### *1.5.4. The Moderating Effects of Job Demands and Job Resources on the Workplace Bullying-Burnout Relationship.*

Evidently, efforts to combat WPB can drain teachers' energy reserves and eventually their environmental and personal resources, resulting in burnout and its subcomponents (Maslach et al., 2001; Tuckey & Neall, 2014). Additionally, job characteristics have been found to exacerbate or alleviate the resource conservation strategy of burnout as demonstrated by the JD-R's *health impairment process, motivational process* and the *interaction process* between these job characteristics (Bakker & Demerouti, 2007). Based on the above research, it is believed that job characteristics may therefore moderate the WPB-burnout relationship among teachers, where job demands will boost this relationship and job resources will buffer this relationship. The following diagram was constructed to depict the proposed moderating effects of the job characteristics on the WPB-burnout relationship.

**Figure 1.7.**

*The Predicted Relationship between Workplace Bullying, the JD-R Model & Burnout*




This raises the question as to whether job demands will boost the WPB-burnout relationship and whether job resources will buffer this WPB-burnout relationship. As such the following hypotheses are posited:

*Hypothesis iv:* Job demands moderate (boost) the relationship between workplace bullying among teachers and burnout

*Hypothesis v:* Job resources moderate (buffer) the relationship between workplace bullying among teachers and burnout.

**1.6. Conclusion of the Literature Review**

Given the stressful context within which many South African teachers work and its outcomes described, this study will investigate WPB among teachers in Gauteng schools. No known quantitative studies investigating the relationship between WPB, burnout and the JD-R within South Africa have been identified in the review of WPB literature. While research reports high incidences of WPB among South African teachers, there remains a lack of research investigating the antecedents, consequences and moderating factors of WPB within South African schools (De Wet, 2014). Given the important role teachers play in South Africa's "faltering school system," (Jansen, 2011, p.2 as cited in Jacobs & De Wet, 2013) the profound negative impacts of WPB and job characteristics that buffer or boost WPB need to be addressed. The results of this study can be used to inform South African labour legislation. which lacks an explicit definition of WPB. These results can inform context specific policies aimed at addressing WPB among teachers in South African schools (Batchelor, 2019).

# Chapter 2: Method

## 2.1. Introduction

This chapter presents the methodology employed to achieve the study's aims. First, the research aims, questions and hypotheses will be summarised, followed by a discussion of the research design, sample characteristics and sampling procedure. Thereafter, an overview of the instruments included in the survey, the primary data collection procedure and the secondary data analysis conducted to answer the research questions will be outlined. To conclude, the ethical considerations concerning the study will be examined.

## 2.2. Research Aims

This research aimed to explore the context-specificity and burnout outcome of workplace bullying experienced by South African teachers. Additionally, it was investigated whether job characteristics would act as moderators of the workplace bullying-burnout relationship. The research questions and subsequent hypotheses are summarised below.

## 2.3. Research Questions

(i) Are job characteristics related to workplace bullying among teachers?

(ii) Is workplace bullying among teachers related to burnout?

(iii) Do job demands moderate (boost) the relationship between workplace bullying among teachers and burnout?

(iv) Do job resources moderate (buffer) the relationship between workplace bullying among teachers and burnout?

## 2.4. Research Hypotheses

i. Job demands are positively related to workplace bullying.

ii. Job resources are negatively related to workplace bullying.

iii. Workplace bullying is positively related to burnout.

iv. Job demands moderate (boost) the relationship between workplace bullying and burnout.

v. Job resources moderate (buffer) the relationship between workplace bullying and burnout.

### 2.5. Research Design

The research design acts as a framework for the systematic data collection and analysis of such data obtained from a chosen population. The purpose of the research, research questions and derived hypotheses inform the research design of a study (Burns & Burns, 2008). This study employed a quantitative, descriptive and cross-sectional research design, using secondary data, to describe the relationship between the variables of WPB, job demands, job resources and burnout. Self-report hard copy and online survey data was collected by a primary researcher however, no analyses had been conducted, making this secondary data. The use of secondary data eliminates the time and resources required to collect data (Anderson et al., 2011). This benefit of secondary data was particularly salient for the current research study, given the disruptions caused by the COVID-19 pandemic and the barriers to data collection that would have accompanied South Africa's national lockdown.

### 2.6. Sample and Sampling Procedure

Non-probability, purposive sampling was used by the primary researcher to survey teachers in 14 schools across various quintiles located in Johannesburg, Gauteng (Babbie & Mouton, 2001). Purposive sampling, a non-random sampling technique, was employed as the population under study was school teachers in Johannesburg, Gauteng. Thus, the sample was required to embody specified characteristics to answer the research question (Babbie & Mouton, 2001). Moreover, only 14 schools were approached in Johannesburg, therefore the population of South African teachers did not have equal opportunities to participate in this study, accounting for the non-probability aspect of this sampling strategy. 500 teachers were asked to partake in this research endeavour, with 186 teachers completing the survey. This indicates a 37.2% response rate for the primary dataset. After data cleaning, which included the removal of participants who did not complete 80% of the survey items, the final dataset consisted of 158 teachers (Field, 2018).

The sample therefore comprised 158 teachers ($N$ = 158), whose ages ranged from 21-62 years with the mean age of 42.46 ($SD$ = 11.61, $n$ = 154). The majority of the sample

(25.9%) fell within the 41-50 years old category (*n* = 41). The gender distribution of the sample was not collected by the primary researcher. The sample comprised 32.9% Indian (*n* = 52), 28.5% Coloured (*n* = 45), 24.7% African (*n* = 39), and 7.6% White (*n* = 12) individuals with the remaining 6.3% (*n* = 10) choosing not to specify their race. The majority of the sample's home language was English (55.1%, *n* = 87), followed by Afrikaans (19%, *n* = 30) and then isiZulu (10.1%, *n* = 16). The home language distribution among the sample may reflect the dominant language of learning and teaching (LoLT) that pervades the South African school system. The dominant LoLT within South Africa is English, followed by Afrikaans and then isiZulu (Department of Education, 2020).

The level of education of the sample varied, with the majority of the sample obtaining a degree or advanced diploma (48.1%, *n* = 76), followed by 24.1% obtaining a diploma (*n* = 38) and 16.5% obtaining an honours degree or post-graduate diploma (*n* = 26). When asked about their schools' quintile, 21.5% of the sample chose not to answer the question (*n* = 34), potentially indicating that they were unsure of their school's quintile classification. As such, the quintile categorisation of the schools included in this study may be skewed. Nevertheless, the majority of the sample categorised their schools as quintile 5 schools (48.4%, *n* = 60). This classification indicates that the majority of the schools were well-resourced, serving the wealthiest surrounding communities (Department of Basic Education, 2018). Following this, 30.3% of the sample (*n* = 32) categorised their schools as quintile 1 schools, indicative of under-resourced schools, serving the poorest communities.

**Table 2.1**

*Demographic Characteristics of the Sample (N =158)*

| Variable | Category | Frequency | % |
|---|---|---|---|
| Age | 21 – 30 years old | 34 | 21.5 |
| | 31 – 40 years old | 33 | 20.9 |
| | 41 – 50 years old | 41 | 25.9 |
| | 51 – 60 years old | 39 | 24.7 |
| | 60 + years old | 7 | 4.4 |
| | Missing | 4 | 2.5 |

| | | | |
|---|---|---|---|
| Ethnicity | African | 39 | 24.7 |
| | White | 12 | 7.6 |
| | Coloured | 45 | 28.5 |
| | Indian | 52 | 32.9 |
| | Missing | 10 | 6.3 |
| Home Language | English | 87 | 55.1 |
| | Afrikaans | 30 | 19 |
| | isiZulu | 16 | 10.1 |
| | isiXhosa | 2 | 1.3 |
| | Sesotho | 9 | 5.7 |
| | Sepedi | 2 | 1.3 |
| | Setswana | 3 | 1.9 |
| | Xitsonga | 3 | 1.9 |
| | Other | 3 | 1.9 |
| | Missing | 3 | 1.9 |
| Marital Status | Married | 82 | 51.9 |
| | Not married | 64 | 40.5 |
| | Living with partner | 6 | 3.8 |
| Number of dependents | None | 38 | 24.1 |
| | One or More | 114 | 72.2 |
| | Missing | 6 | 3.8 |
| Level of Education | Technical Trade | 4 | 2.5 |
| | Diploma | 38 | 24.1 |
| | Degree/ Advanced Diploma | 76 | 48.1 |
| | Honours/ Post-Graduate Diploma | 26 | 16.5 |
| | Masters | 8 | 5.1 |
| | Doctorate | 1 | 0.6 |
| | Missing | 5 | 3.2 |
| Quintile | 1 | 32 | 30.3 |
| | 2 | 2 | 1.3 |
| | 3 | 1 | 0.6 |
| | 4 | 29 | 18.4 |
| | 5 | 60 | 48.4 |
| | Missing | 34 | 21.5 |

## 2.7. Instruments

The survey distributed to teachers (see Appendix A) consisted of 116 questions with five sub-sections, namely a self-developed demographic questionnaire, the Job Demands-Resources Scale (JDRS), the Negative Acts Questionnaire Revised (NAQ-R) and the Maslach's Burnout Inventory-Educators Survey (MBI-ES).

### *2.7.1. Demographic Questionnaire*

This section included seven demographic questions relating to race, marital status, home language, number of children, level of education, age and school quintile category. The purpose of this data was to determine the differences between demographic groups and types of schools in relation to the variables measured in this research study.

### *2.7.2. Job Demands Resources Scale (JDRS)*

The JDRS is a 48-item instrument, comprised of 7 factors used to measure job demands and job resources (Jackson & Rothman, 2005). Responses are scored on a four-point Likert type frequency scale from 1 *(never)* to 4 *(always).* Within the South African context, this scale has been reduced to 45 items with five factors relating to job overload, growth opportunities, organisational support, advancement and job insecurity (Strydom, et al., 2006). Growth opportunities, organisational support and advancement are factors relating to job resources, whereas job overload and job insecurity are related to job demands. According to Strydom et al. (2006), the adapted JDRS demonstrates acceptable internal consistency reliability across all five factors with Cronbach's alpha values ranging from .76 to .92.

For the purpose of this study, the wording within the JDRS scale was modified to suit the school context, i.e. the term "school" was used rather than "company." Examples of items found within the scale include *"Do you have too much work to do?"* and *"Do you have freedom in carrying out your work?"* (Strydom et al., 2006). Additionally, in the context of this research, the overall job characteristics experienced by teachers were focused upon. It is stressful environments as a whole (high job demands and a lack of job resources) that can contribute to the emergence and perpetuation of WPB and burnout (Batchelor, 2019;

Bernotaite & Malinauskiene, 2017; Baillien et al., 2011). Therefore the totals for job demands and job resources were computed rather than investigating each factor as determined by Strydom et al. (2006). There exists a precedent for the calculation of the totals for each job characteristic. These calculations have been demonstrated by the scale developers, Jackson and Rothman (2005).

### *2.7.3. Negative Acts Questionnaire – Revised (NAQ-R)*

The NAQ-R measures workplace bullying in the form of negative acts (Einarsen & Hoel, 2001). The scale comprises 22 items, scored on a five-point Likert type frequency scale ranging from 1 *(never)* to 5 *(daily)*. Examples of items found within the scale include *"Someone withholding information which affects your performance"* and *"Being exposed to an unmanageable workload"* (Einarsen & Hoel, 2001). This scale demonstrates an acceptable internal consistency (Cronbach's alpha) value of .89 and has been deemed to have good face validity (Berthelsen et al., 2011).

### *2.7.4. Maslach's Burnout Inventory-Educators Survey (MBI-ES)*

The MBI-ES is a 22-item scale designed to measure the psychological syndrome of burnout among educators. It is a version of the original MBI for use within the educational setting, as such the term "recipient" is replaced with "learner" (Maslach et al., 1986). Moreover, the MBI-ES does not calculate a global burnout score. Rather, the three burnout subscales are considered separately: (1) emotional exhaustion (EE), assessed by seven items; (2) depersonalisation (DP), measured by seven items; and (3) personal achievement (PA), comprising eight items. It is important to note that a lack of PA relates to burnout. Therefore, higher scores on the PA subscale indicate lower levels of burnout and vice versa. Items are scored on a seven-point Likert frequency scale from 0 (*never*) to 6 (*everyday*). Examples of items found within the scale include *"I feel emotionally drained by my work," "I feel I look after certain learners impersonally, as if they are objects" and "I accomplish many worthwhile things in this job"* (Maslach et al., 1986).

The three burnout subscales have been found to possess good levels of internal consistency reliability with EE ranging from α = 0.87 to .90, DP ranging from α = .74 to .76,

and PA ranging from α = .72 to .84 (Maslach et al., 2016). The MBI-ES has also been distributed among South African teachers and demonstrates good levels of reliability within this context, with the subscale alpha values ranging from α = .79 to α = .81 (Pienaar & van Wyk, 2006).

## 2.8. Procedure

### *2.8.1. Secondary Data Analysis*

The relevant data collected by the primary researcher was obtained by the current researcher to carry out this research study. This secondary data was an apt dataset as it measured the constructs of interest relevant to the current study, and no analyses had been conducted on the data. Permission to obtain access to the primary dataset was acquired from the primary researcher and the researcher's supervisor (see Appendix B).

According to Brewer (2011), the anonymity of participants and keeping the integrity of the data intact are the primary ethical concerns in secondary data analysis. In the present study, these ethical concerns were addressed. Firstly, participants were unidentifiable in the secondary data set. The hard-copy surveys did not include any identifiable information and the IP addresses of participants from the online survey were deleted once the data was downloaded, thus ensuring anonymity. Furthermore, the primary researcher ensured that the online data files and hard-copy data were securely stored.

To minimise potential limitations in the secondary data analysis process, detailed information was acquired regarding the primary data collection method and process. This was done by interviewing the researcher's supervisor about the study, reading the Participant Information Sheets and the methods chapter of the primary study (Windle, 2010).

### *2.8.2. Procedure Followed by the Primary Researcher*

A hard copy and an online survey were developed by the primary researcher to be distributed to teachers across various schools in Gauteng. These schools were contacted physically, telephonically or via email requesting permission from their principals to access teachers. They were provided with a Principal Participant Information Sheet (PIS) describing the purpose of the study and what the study would entail for the teachers (see Appendix C).

Once the principals gave the researcher their written permission to carry out this research study, these letters were provided to the Gauteng Department of Education (GDE) for final permission to utilise the schools' teachers to complete the survey (see Appendix D). After obtaining permission, hard copies of the surveys were distributed to teachers in participating schools with a Teacher PIS attached (see Appendix E). The PIS contained an encrypted link that teachers could use if they chose to complete the online survey. If they chose to use the electronic link, they were informed that once they submit the survey online this would be regarded as informed consent. However, they could withdraw at any time by choosing not to submit. Teachers who completed the hard copy surveys were instructed to seal their surveys in an envelope provided and place the envelope in a sealed box located within a private space in the school. Data was collected during the period July – September 2018.

**2.9. Data Analysis**

The raw data was received in the form of hard copy surveys and a Microsoft Office Excel spreadsheet for the online survey data. The data was coded and entered into the IBM Software Package for the Social Sciences (SPSS), Version 26, with the PROCESS Version 3.5 by Andrew Hayes installed. Thereafter the data was cleaned and checked for errors. Mean substitutions were conducted to replace missing data (Field, 2018).

***2.9.1. Descriptive Statistics***

Descriptive statistics were used to describe the data through the calculation of frequencies, means, standard deviations and the minimum and maximum scores for each instrument. Furthermore, these statistics assessed the fit for normality of skewness, kurtosis, Kolmogorov-Smirnoff coefficients and histograms to check parametric assumptions. To determine whether data was normally distributed using skewness and kurtosis, the rule set out by Huck (2009) was utilised. Accordingly, data is deemed 'normal' if the coefficients lie between -1 and 1 for skewness values, and -3 and 3 for kurtosis values. Moreover, a non-significant Kolmogorov-Smirnov statistic is indicative of normality (an alpha value greater than .50) (Field, 2018).

### *2.9.2. Psychometric Properties of the Instruments*

**2.9.2.1. Exploratory Factor Analysis.** To determine the construct validity of the instruments containing subscales or factors (the JDRS and MBI-ES), Exploratory Factor Analysis (EFA) was employed (Field, 2018). The EFA method determines the latent construct of a set of variables through a multivariate approach. Once the latent constructs of an instrument are determined, EFA allows for the formation and/ or refinement of theory (Hayton et al., 2004). Three analytical assumptions or decisions need to be met before EFA can be run, namely the EFA method, rotation and the suitability of the data for factor analysis which involves Bartlett's test of Sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Pallant, 2010).

**2.9.2.2. Internal Consistency Reliability.** Reliability analysis entailed the determination of the internal consistency reliability using Cronbach's alpha coefficient (α). This is the most frequently adopted measure of internal consistency in social science research. Cronbach's alpha coefficient determines how closely items on a scale are related (Pallant, 2010). Kline's (1998 as cited in Singh et al., 2016) principles were used to interpret the internal consistency of the study's measures as demonstrated in Table 2.2.

**Table 2.2**

*Internal Consistency Principles of Kline (1998)*

| Cronbach's alpha ranges | Associated internal consistency rating |
|---|---|
| $\alpha \geq 0.9$ | Excellent (High-Stakes testing) |
| $0.7 \leq \alpha < 0.9$ | Good (Low-Stakes testing) |
| $0.6 \leq \alpha < 0.7$ | Acceptable |
| $0.5 \leq \alpha < 0.6$ | Poor |
| $\alpha < 0.5$ | Unacceptable |

### *2.9.3. Pearson Product-Moment Correlation*

Pearson Product-Moment Correlation was conducted to assess the relationship between the variables under study thereby answering research questions (i) and (ii) on page 35. This

is the most frequently used statistical measure of strength, direction and significance of the relationships between the variables, i.e. how the changes in one variable relate to the changes in another (Field, 2018). Pearson's correlation coefficients range between -1 and +1, where -1 is indicative of a perfect negative relationship (an increase in one variable relates to a decrease in the other) and +1 a perfect positive relationship (an increase in one variable relates to the increase in another variable). A correlation coefficient of 0, represents an absence of a relationship between the variables. Thus, the closer the correlation coefficient is to -1/+1, the stronger the relationship between the variables.

Guilford's guidelines (1956 as cited in Brassard & Boehm, 2011) on how to interpret Pearson's correlation coefficients were utilised in this study. Furthermore, to calculate the effect size or proportion of shared variance ($R^2$) the value of Pearson's coefficient ($r$) is squared (Field, 2018). The relationships between WPB, the three burnout subcomponents and job characteristics were investigated in this study using Pearson's correlation. The following guidelines were employed to assess the strength of relationships observed. Pearson's correlation was used to test hypotheses i, ii and iii as outlined on page 35.

**Table 2.3**

*Interpretation of Correlation Coefficients based on Guilford's guidelines (1956)*

| Correlation coefficient category | Explanation |
|---|---|
| < 0.20 = < 4% | Slight, almost negligible relationship. |
| 0.20 – 0.40 = 4% – 16% | Low correlation. |
| | Definite, but small relationship. |
| 0.40 – 0.70 = 16% – 49% | Moderate correlation. |
| | Substantial relationship. |
| 0.70 – 0.90 = 49% – 81% | High correlation. |
| | Clear, discernible relationship. |
| > 0.90 = 81%+ | Very high correlation. |
| | Dependable relationship. |

Prior to the Pearson Product-Moment Correlation being calculated, the following assumptions needed to be met (Field, 2018; Pallant, 2010):

(i) The dependent variable must be measured on at least an interval scale

(ii) Adequate sample size

(iii) The data must be normally distributed

(iv) Independent, random sampling must have taken place

(v) No outliers should be contained within the data

(vi) A linear relationship should exist between variables

(vii) Homogeneity of variance must be present

### *2.9.4. Analysis of Variance (ANOVA)*

One-way ANOVAs were conducted to examine whether participants differed in their experience of WPB, job demands, job resources, EE, DP and PA as a function of their (1) age group; (2) ethnicity; (3) home language; (4) marital status; (5) number of dependents; (6) level of education and (7) school quintile classification.

The following assumptions needed to be met prior to carrying out the ANOVA analyses:

(i) The data must be normally distributed

(ii) Homogeneity of variance must be present

(iii) Independent, random sampling must have taken place

(iv) The dependent variable should be measured on at least an interval scale

### *2.9.5. Moderated Multiple Regression*

Moderated Multiple Regression (MMR) was used to determine the moderating role of job demands and job resources in the relationship between WPB and burnout thereby answering research questions (iii) and (iv). MMR is used to determine whether the relationship between two variables depends on or is moderated by a third proposed variable (Field, 2018). A moderator therefore affects the relationship between two other variables. To determine whether a proposed variable acts as a moderator of the relationship between the predictor and outcome variables, the nature of the relationship between these two variables must change as the value of the moderator changes.

To test hypotheses iii and iv (as outlined on page 35), whereby job characteristics (job demands and job resources) were predicted to moderate the relationship between WPB and burnout (comprised of EE, DP and PA), MMR was carried out through the use of Andrew Haye's (2013) PROCESS Model 2. This model allows for two moderator variables to be included in the MMR, reducing the number of analyses required. This in turn makes the MMR analyses more robust thereby increasing the power of such analyses (Hayes, 2013). The conceptual and statical diagrams for PROCESS Model 2 are presented below.

**Figure 2.8.**

*Hayes (2013) PROCESS Model 2 Conceptual Diagram (Adapted from Hayes, 2013)*

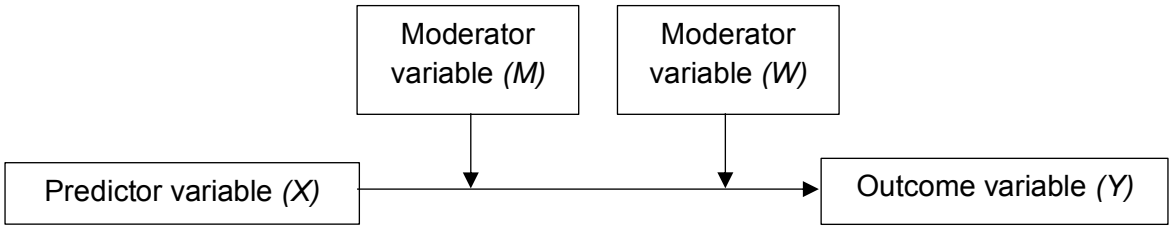
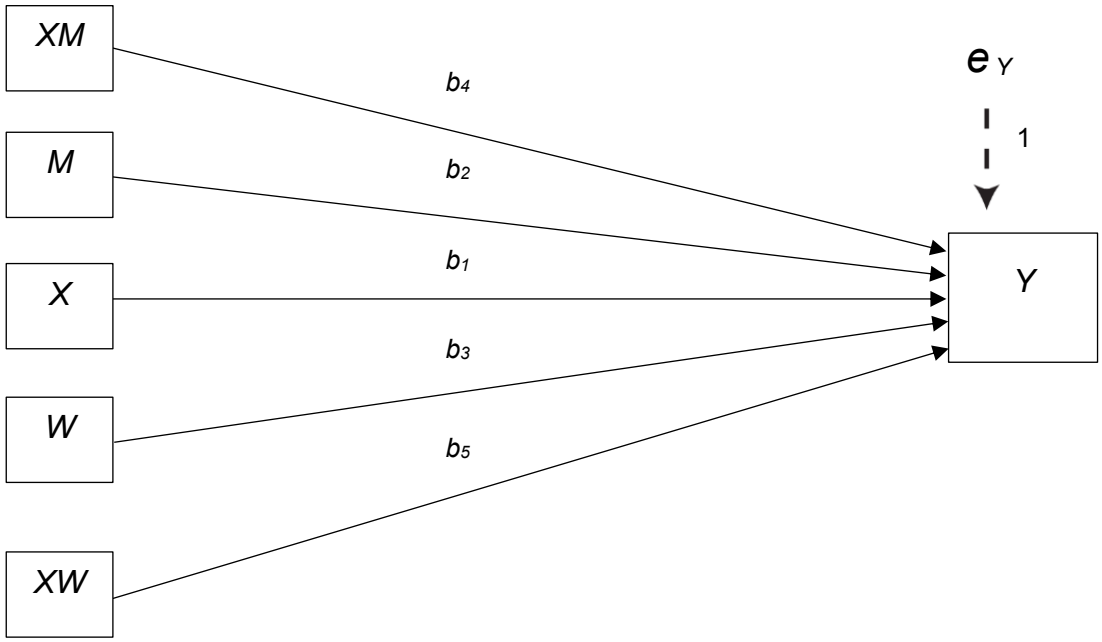



**Figure 2.9.**

*Hayes (2013) PROCESS Model 2 Statistical Diagram (Adapted from Hayes, 2013)*




Conditional effect of $X$ on $Y = b_1 + b_4M + b_5W$

This study investigated three outcome variables namely EE, DP and PA. Therefore, Hayes' (2013) PROCESS Model 2 was conducted three times for each burnout subcomponent. Table 2.4 includes the components of the hypotheses needed for each MMR PROCESS Model 2 analysis.

**Table 2.4**

*Hypotheses Components Required for Moderation Analysis*

| MMR Analysis Number | Predictor variable (*X*) | Moderator variable (*M*) | Moderator variable (*W*) | Interaction effects<br>*X* * *M*<br>*X* * *W* | Outcome variable (*Y*) |
|---|---|---|---|---|---|
| 1. | WPB | JD | JR | WPB * JD<br>WPB * JR | EE |
| 2. | WPB | JD | JR | WPB * JD<br>WPB * JR | DP |
| 3. | WPB | JD | JR | WPB * JD<br>WPB * JR | PA |

Prior to conducting the MMR, the follow assumptions needed to be met (Field, 2018):

(i) The demographic variables must not be related to the dependent variables

(ii) The relationships between the independent and dependent variables are linear

(iii) The dependent variable must be measured on at least an interval scale

(iv) There are no significant outliers contained within the data

(v) No measurement error exists

(vi) The data must be normally distributed

(vii) Independent, random sampling must have taken place

(viii) There must be homogeneity of variance

(ix) There must be an absence of multicollinearity

## 2.10. Ethical Considerations

Data for this study had already been collected. The current researcher obtained permission from the primary researcher and the researcher's supervisor through the permission letter outlined in Appendix B: Permission for Secondary Data Analysis. Thereafter, ethical approval was obtained from the Human Research Ethics Committee (HREC) Non-Medical at the University of the Witwatersrand (see Appendix F). It is important to note that ethical clearance was initially granted by the HREC for data collection in the primary study (see Appendix G). In addition, the Gauteng Department of Education approved the research, allowing the primary researchers to access schools under the purview.

Babbie and Mouton's (2001) principles of ethical social research were ultimately upheld in the primary data collection process. This includes informed consent, voluntary participation, confidentiality, anonymity and the storage and protection of data which were outlined in the principle and teacher PIS (see Appendices C and E) and will be further discussed below.

### *2.10.1. Informed Consent and Voluntary Participation*

PIS were provided to all participating school principals and teachers informing them of the purpose of the study, what their participation would involve, that participation was voluntary and that no individual would be advantaged or disadvantaged for choosing to– or not to – participate in the study. Principals and participants were informed that teachers would have the right to withdraw from the study at any time before they submitted the survey online or handed the survey in to the researcher for analysis. Participants were also informed that the data would only be used for research purposes and for possible future use in secondary analysis, conference proceedings and publication. Further, participants were informed that research findings would be presented as only general trends. No single participant's response could therefore be identified. Moreover, the name of the schools who consented to the study taking place would not be mentioned in the research or any future conference proceedings and publications. Contact details of the researcher and the

researcher's supervisor were included in the PIS along with the University's Ethics office details. Finally, in the primary study, all participants were given access to free counselling through the University's Emthonjeni Centre if they felt any distress after completing the survey. None of the participants required or used this service.

### *2.10.2. Confidentiality, Anonymity and Data Storage*

Hard copies handed out to the participants at schools were to be placed in a sealed box in a private location for the researcher to collect. In the teacher PIS, the participants were fully assured of their confidentiality and anonymity as they would not be identifiable by name. Moreover, no identifying information was requested in the survey. Although the online survey did indicate the IP addresses of participants, once the data was downloaded by the primary researcher all IP addresses were deleted to ensure anonymity. The initial data collected had been stored securely on a password-protected computer accessible only to the primary researcher and the researcher's supervisor. The data was provided to the current researcher to store under the same conditions.

## 2.11. Conclusion of the Method Chapter

This chapter outlined the research aims, questions, hypotheses, design, sample and sampling procedure unique to this study. The psychometric properties of the instruments included in the survey were discussed, together with the secondary data analysis procedure and the procedure followed by the primary researcher. The data analysis techniques to be employed in this study and their underpinning assumptions were described. Finally, the ethical considerations followed by both the secondary and primary researchers during the course of this study were presented.

The following chapter presents the research findings obtained from the data analysis techniques described above. This results chapter includes the assumption tests for each technique and a discussion of the results in accordance with the study's hypotheses.

# Chapter 3: Results

## 3.1. Introduction

This chapter presents an overview of the results obtained from the statistical analyses carried out to examine this study's hypotheses. The first section focuses on the psychometric properties of the measures in the form of exploratory factor analysis and internal consistency reliability calculations for the scales and subscales. Secondly, the descriptive statistics of the composite scores for each measure are presented and the intercorrelations between variables are outlined. Multiple One-Way ANOVAs are presented to determine demographic group differences. Finally, three moderated multiple regression analyses for each burnout subcomponent (EE, DP and PA) were carried out.

## 3.2. Psychometric Properties of the Instruments

### *3.2.1. Exploratory Factor Analysis (EFA)*

EFA is a multivariate statistical approach employed to determine the latent dimensions of a set of variables. This factor analytic technique reduces a large set of data to smaller sets of factors or components (Field, 2018; Pallant, 2010). As such, this analysis was conducted to determine the construct validity of the JDRS, to be reduced to the two factors of job demands (JD) and job resources (JR) and the MBI-ES scale to be reduced to the three subscales, EE, DP and PA. EFA was not conducted on the NAQ-R as only one factor, namely WPB, was to be investigated. While the JDRS has been validated within the South African context, its two-factor structure has not yet been validated in this context (Jackson & Rothmann, 2005).

Three important analytical decisions were made prior to carrying out the EFA as outlined in the methods chapter on page 43. Firstly, this study made use of the Principal Component Analysis (PCA) EFA method as this technique extracts the maximum variance of the data (Tabachnick & Fidell, 2007). Added to this, PCA avoids potential concerns of other EFA methods, providing a practical summary of the dataset. Secondly, for a more interpretable and parsimonious solution, the form of rotation needs to be specified. An oblique rotation using direct oblimin was used as it assumes factors in the subscales to be

related. This is especially relevant to the MBI-ES, as theoretical evidence suggests that the subscales of EE and DP are strongly related (Maslach & Jackson, 2001).

The last EFA decision relates to the assessment of the suitability of data for factor analysis. This includes a satisfactory sample size and adequate strength of the relationship between the variables using the KMO measure of sampling adequacy and the Bartlett's test of Sphericity ($\chi^2$) as outline in the methods chapter (Field, 2018; Pallant, 2010). The data was deemed suitable for factor analysis regarding KMO and Bartlett's Test of Sphericity allowing for the PCA to be carried out. Variables were reduced to ensure adequate factorial loadings through an iterative process. According to Samuel's (2016) recommendation, factor loading greater than .3 were assumed to load onto a factor.

**3.2.1.1. Principal Components Analysis JDRS.** Both the KMO measure and Bartlett's Test of Sphericity supported factor analysis for the JDRS scale (KMO = .891; $\chi^2$ (630) = 3497.68, $p < .001$). This 48-item scale was analysed using PCA with direct oblimin rotation, where a fixed number of components (two) were extracted to account for the factors of JD and JR. Items 3, 38, 39 and 43 did not load onto either factor. These items were therefore removed from analysis. Added to this, multiple items had cross-loadings above .3 namely items 11, 40, 41, 42, 44 and 45, which were also removed. The JDRS scale was therefore reduced to 36-items, with a final structure of two factors accounting for 43.55% of the cumulative variance. Each factor's final loadings are reported in Table 3.1.

**Table 3.5**

*Factor Loading for the 36-item Job Demands Resources Scale*

| Item | Factor | |
|---|---|---|
| | 1 | 2 |
| J1 | | .611 |
| J2 | | .655 |
| J4 | | .663 |
| J6 | | .584 |
| J7 | | .661 |
| J8 | | .700 |

| | | |
|---|---|---|
| J9 | | .672 |
| J10 | | .596 |
| J12 | .412 | |
| J13 | .578 | |
| J14 | .715 | |
| J15 | .688 | |
| J16 | .592 | |
| J17 | .566 | |
| J18 | .497 | |
| J19 | .618 | |
| J20 | .613 | |
| J21 | .551 | |
| J22 | .743 | |
| J23 | .766 | |
| J24 | .777 | |
| J25 | .630 | |
| J26 | .545 | |
| J28 | .686 | |
| J29 | .711 | |
| J30 | .720 | |
| J31 | .615 | |
| J32 | .710 | |
| J33 | .650 | |
| J34 | .697 | |
| J35 | .759 | |
| J36 | .702 | |
| J37 | .523 | |
| J46 | .621 | |
| J47 | .617 | |

*Note.* Extraction: Principal Component Analysis. Rotation: Oblimin with Kaiser normalisation Rotation converged in 5 iterations

**3.2.1.2. Principal Components Analysis MBI-ES.** EFA for the MBI-ES was supported by the KMO measure and Bartlett's Test of Sphericity (KMO = .842; $\chi^2$ (231) = 2261.85, $p < .001$). It was expected that this 22-item scale would load onto three factors or the subscales of the MBI-ES namely EE, DP and PA. However, according to the MBI test

manual, it is not uncommon to omit items as a result of failure to load onto expected factors (Worley et al., 2008). The EE items loaded onto one factor and therefore all items were retained. Conversely, item 2 of DP only loaded onto the EE factor and was therefore removed from analysis. Added to this, item 2 of the PA factor cross loaded onto the EE factor, with a factor loading greater than .3, and was therefore removed through an iterative process. As a result, the MBI-ES was reduced to 20 items with a final structure of three factors with eigen values greater than 1.0, accounting for 62.88% of the cumulative variance.

**Table 3.6**

*Factor Loadings for the 20-item Maslach's Burnout Inventory-Educators Survey*

| Item | Factor | | |
|---|---|---|---|
| | 1 | 2 | 3 |
| EE 1 | .821 | | |
| EE 2 | .593 | | |
| EE 3 | .942 | | |
| EE 4 | .925 | | |
| EE 5 | .775 | | |
| EE 6 | .812 | | |
| EE 7 | .898 | | |
| DP 1 | | .640 | |
| DP 3 | | .719 | |
| DP 4 | | .832 | |
| DP 5 | | .749 | |
| DP6 | | .867 | |
| DP 7 | | .905 | |
| PA 1 | | | .564 |
| PA 3 | | | .545 |
| PA 4 | | | .845 |
| PA 5 | | | .782 |
| PA 6 | | | .851 |
| PA 7 | | | .767 |
| PA 8 | | | .671 |

*Note.* Extraction: Principal Component Analysis. Rotation: Oblimin with Kaiser normalisation Rotation converged in 5 iterations

### *3.2.2. Internal Consistency Reliability Analysis*

A reliability analysis was conducted to assess the internal consistency of the NAQ-R, JDRS and MBI-ES scales and subscales. In social science research, Cronbach's alpha (α) coefficient is the most commonly used measure of internal consistency and was therefore employed in the present study (Pallant, 2010). It has been noted that Cronbach's alpha is sensitive to shorter scales. However, each of the scales and subscales reviewed had a minimum of six items reducing this concern (Burns & Burns, 2008). A scale is deemed reliable if the reliability analysis obtains an alpha value greater than .70 (Kline, 1999 as cited in Pallant, 2010). All scales and subscales demonstrated acceptable to high levels of internal consistency reliability with all alpha values above the cut off .70, see Table 3.3.

**Table 7.3**

*Reliability Analyses for the WPB, JDRS and MBI-ES Scales and Subscales*

| Scale and Subscales | N Items | Cronbach's Alpha |
|---|---|---|
| WPB | 23 | .966 |
| JDRS | 36 | .922 |
| JD | 8 | .759 |
| JR | 28 | .947 |
| MBI-ES | 20 | .735 |
| EE | 7 | .920 |
| DP | 6 | .882 |
| PA | 7 | .846 |

## 3.3. Descriptive Statistics

Descriptive statistical analyses were conducted to explore the distribution of scores for the NAQ-R and the subscales of the JDRS and MBI-ES. The mean (*M)* minimum, maximum and standard deviation (*SD)* for each scale were computed together with the distribution of the variables (skewness and kurtosis coefficients). This allowed for the general assumption of linearity to be checked. Added to this, the frequency percentage distribution for each of the three MBI-ES subscales were calculated according to the MBI

test manual categorisation. This categorisation was adjusted accordingly to meet the item reduction that took place during EFA.

### *3.3.1. Mean, Standard Deviation, Maximum and Minimum scores*

**3.3.1.1 NAQ-R.** The maximum score attainable for the NAQ-R, indicative of high WPB, was 115 and the minimum, 23. In this study, the maximum was 104 and the minimum was 23 (*M* = 50.72, *SD* = 19.08). These results indicate that an average level of bullying was experienced by the participants.

**3.3.1.2. MBI-ES.** As discussed, the MBI-ES does not calculate a global burnout score and rather considers each subscale separately. According to the MBI categorisation, individuals are classified as experiencing burnout if they report moderate to high levels of one or more of the subscales (Maslach & Jackson, 2001). 50%, 83.6% and 42.4% of the participants experienced moderate to high levels of EE, DP, and lack of PA respectively and thus burnout (see Table 3.4 below).

The EE subscale was not reduced, therefore the maximum score attainable was 42, as the burnout subscales were measured on a seven-point Likert scale with a minimum rating of 0 and a maximum of 6. In this study, the maximum EE score was 42, while the minimum was 1 (*M* = 18.49, *SD* = 11.49). The majority of participants experienced low EE (50%) and therefore low burnout levels in this regard.

The subscale of DP was reduced to 6 items, with a maximum score attainable of 36. The maximum DP score was 34 and the minimum was 0 (*M* = 11.14, *SD* = 9.28). High DP was prevalent among participants. 59.5% of participants were ultimately categorised as experiencing high burnout levels according to this subcomponent.

It is important to note that lack of PA is indicative of burnout, as such the lower the score on the PA subscale, the higher the degree of burnout. The PA subscale was reduced to 7 items with a maximum score of 42 which would indicate a low degree of burnout. In this study the maximum PA score was 42 and the minimum PA score was 12 (*M* = 31.26, *SD* = 7.73). The majority of participants (57.6%) were classified as experiencing high levels of PA and therefore low levels of burnout in accordance with this subscale.

**Table 3.8**

*Frequency Distribution Among the MBI-ES Reduced Subscales According to the MBI Test Manual Categorisation*

| Emotional Exhaustion | | | Depersonalisation | | | Personal Accomplishment[a] | | |
|---|---|---|---|---|---|---|---|---|
| Low | Moderate | High | Low | Moderate | High | Low | Moderate | High |
| ≤ 16 | 17 - 26 | ≥ 27 | ≤ 1 | 1 - 6 | ≥ 7 | ≥ 31 | 25 - 30 | ≤ 24 |
| 79 | 35 | 44 | 26 | 38 | 94 | 91 | 41 | 26 |
| (50) | (22.2) | (27.8) | (16.5) | (24.1) | (59.5) | (57.6) | (25.9) | (16.5) |

*Note.* Values in parentheses indicate percentages

[a] Scale is reversed for Personal Accomplishment. Low levels of PA indicate high burnout scores

**3.3.1.3. JDRS.** For the JDRS, a global score for each job characteristic (JD and JR) was calculated. The reduced JD subscale contained 8 items, and therefore a maximum score of 32 and a minimum score of 8 was obtainable. The JD subscale had a maximum score of 32 and a minimum score of 16 ($M$ = 25.52, $SD$ = 3.75). Participants were therefore experiencing relatively high levels of JD. On the other hand, the JR subscale contained 29 items with a maximum score of 116 and a minimum score of 29. In this study the maximum JR score was 112 and the minimum JR score was 45 ($M$ = 79.07, $SD$ = 15.98). In this regard, participants were experiencing moderate to high levels of JR.

### *3.3.2. Normality*

To check the general normality of the data, histograms were constructed (see Appendix H) and the skewness and kurtosis coefficients were evaluated to determine the asymmetry and peakedness of the data. While the histograms revealed a lack of perfectly normal distribution, this is a common occurrence in social science research (Pallant, 2010). The skewness and kurtosis coefficients however, fell within the acceptable parameters of -1 and 1 and -3 and 3 respectively. As such, the variables did not deviate too far from normality and their distributions are considered normal, allowing for parametric analyses to be conducted.

**Table 3.9**

*Descriptive Statistics and Distribution Values*

| Variable | *N* | *M* | *SD* | Min | Max | Skewness | Kurtosis |
|---|---|---|---|---|---|---|---|
| WPB | 158 | 50.72 | 19.08 | 23 | 104 | .634 | −.685 |
| EE | 158 | 18.49 | 11.49 | 1 | 42 | .385 | −.964 |
| DP | 158 | 11.14 | 9.28 | .00 | 34 | .725 | −.494 |
| PA | 158 | 31.26 | 7.73 | 12 | 42 | −.680 | .033 |
| JD | 158 | 25.53 | 3.75 | 15 | 32 | −.371 | −.278 |
| JR | 158 | 79.07 | 15.98 | 45 | 112 | −.070 | −.812 |

*Note. N* = sample size; *M* = mean; *SD* = standard deviation

### 3.4. Pearson Product Moment Correlation Coefficients

Pearson Product-Moment Correlation analyses were conducted to examine nature of the association among the variables under study. To carry out this parametric analysis the assumptions outlined in the methods chapter on page 45 needed to be met.

#### *3.4.1. Testing Person's Correlation Assumptions*

All variables were measured on an interval scale and independent, random sampling took place. The sample size was adequate as it is recommended that there be at least 8 to 10 observations for each variable for Pearson's correlation to be conducted (Field, 2018). This study made use of six variables and therefore a sample size of 60 and above would have been adequate as is this study's sample (*N* = 158). The assumption of normally distributed data was met as demonstrated above. However, for the assumption of an absence of outliers, Pearson's *r* is especially sensitive to outliers. Therefore, Tukey's (1977) method of determining outliers was conducted to uphold this assumption. This analysis allows for the determination of the lowest and highest acceptable values that would not be considered outliers for each variable. Values that fell outside these ranges were classified as outliers. After conducting this analysis, the assumptions of linearity and homogeneity of variance needed to be tested.

**3.4.1.1. Outliers.** Tukey's (1977) method of determining outliers follows the formula:

$IQR = Q_3 - Q_1$

$g = IQR \times 1.5$

To determine the lower bound values: $Q_1 - g$

To determine upper bound values: $Q_3 + g$

All variables under study did not contain any outliers as all maximum and minimum scores fell between the lower and upper limits which were determined manually. As a result, the assumption of an absence of outliers was met. This assumption is further supported by the boxplots constructed for each variable (see Appendix H).

**Table 3.10**

*Lower and Upper Bound Limits According to Tukey's (1977) Method*

| | $Q_1$ | $Q_3$ | IQR | g | Lower | Upper |
|---|---|---|---|---|---|---|
| WPB | 35 | 67.14 | 32.14 | 48.21 | −13.21 | 115.35 |
| EE | 10 | 28 | 18 | 27 | −17 | 55 |
| DP | 3 | 17 | 14 | 21 | −18 | 38 |
| PA | 27 | 37 | 10 | 15 | 12 | 47 |
| JD | 21 | 28 | 7 | 10.5 | 10.5 | 38.5 |
| JR | 65 | 91 | 26 | 39 | 26 | 130 |

**3.4.1.2. Homogeneity of Variance and Linearity.** The scatterplots of the standardised residuals demonstrated that the assumptions of homogeneity of variance and linearity were met (see Appendix H).

### *3.4.2. Pearson Product-Moment Correlation Interpretation*

This statistical test was appropriate to determine the strength and directionality of the relationship between the normally distributed predictor variables of WPB, JD and JR and the three outcome variables of burnout namely EE, DP and PA. Correlation coefficients were interpreted in relation to Guilford's guidelines (1956) as illustrated on page 44.

**3.4.2.1. Intercorrelation Between WPB and Job Characteristics.** Table 3.7 indicates that there was a moderately strong positive association between JD and WPB ($r$ = .440, $p$ < .001), with an effect size of $R^2$ = .1936 or 19.36% indicative of a substantial

relationship. On the other hand, a moderate negative relationship between JR and WPB was found ($r$ = −583, $p$ < .001), with an effect size of $R^2$ = .3399 or 33.99%, indicative of a substantial relationship between the JR and WPB. Thus, higher levels of JR may be related to fewer instances of WPB. As such, the results of this study support hypotheses (i) and (ii) as job characteristics (JD and JR) were significantly related to WPB among teachers.

**3.4.2.2. Intercorrelation Between WPB and Burnout.** Table 3.7 reveals a moderate positive association between WPB and the EE subscale of burnout ($r$ = .487, $p$ < .001), with an effect size of $R^2$ = .2372 or 23.72%, indicative of a substantial relationship. Furthermore, a moderately strong positive association between WPB and the DP subscale of burnout ($r$ = .445, $p$ < .001) was found, with an effect size of $R^2$ = .198 or 19.80%, a substantial relationship. Furthermore, lack of PA was predicted to be related to WPB. It is therefore not surprising that there was a slightly negative yet significant relationship between WPB and PA ($r$ = −.189, $p$ < .05), with an effect size of $R^2$ = .0357 or 3.57%, indicative of an almost negligible relationship. Therefore hypothesis (ii) is supported by the results of this study as WPB among teachers was significantly related to burnout (or its subcomponents comprised of the EE, DP and (lack) of PA subscales).

**Table 3.11**

*Pearson Product-Moment Correlation*

| | WPB | EE | DP | PA | JD | JR |
|---|---|---|---|---|---|---|
| **Independent Variable** | | | | | | |
| 1. Workplace Bullying | --- | .487** | .445** | -.189* | .440** | −.583** |
| **Dependent Variables** | | | | | | |
| 1. Emotional Exhaustion | .487** | --- | .706** | −.179** | .455** | −.331** |
| 2. Depersonalisation | .445** | .706** | --- | −.336** | .395** | −.315** |
| 3. Personal Accomplishment | −.189** | −.179* | −.366** | --- | .126 | .363** |
| **Moderator Variables** | | | | | | |
| 1. Job Demands | .440** | .455** | .395** | .126 | --- | −.137 |
| 2. Job Resources | −.583** | −.331** | −.315** | .363** | −.137 | |

* Correlation is significant at the 0.05 level
**Correlation is significant at the 0.01 level

### 3.5. Analysis of Variance (ANOVA)

Multiple One-Way ANOVAs were conducted prior to proceeding with the moderated multiple regression analyses to determine potential group differences on account of the participants' demographic variables. The subsequent MMR analyses were informed by the presence of any significant relationships from the comparisons of the means between groups. The categorical variables demonstrating a significant relationship were entered into the regression equation as covariates (Tabachnick & Fidell, 2014). Only the statistically significant group differences are discussed below, which related to the categorical variable of school quintile while the non-significant results are included in Appendix I: Non-Significant ANOVAs.

#### *3.5.1. Testing ANOVA Assumptions*

Before proceeding with the analyses, the assumptions of a one-way ANOVA needed to be met, all of which had been determined above. The assumptions of normality, homogeneity of variance, independent, random sampling and interval scale of measure were all tested. For a one-way ANOVA however, unequal sample sizes affect the robustness of the equal variance assumption. Thus, Levene's test of homogeneity of variance was conducted. All tests were non-significant $p > .05$ (see Table 3.8). Therefore, equal variances were assumed (Field, 2018).

**Table 3.12**

*Levene's Test for Homogeneity of Variance*

| | *Levene Stat.* | *df 1* | *df 2* | *Sig.* |
|---|---|---|---|---|
| WPB | 2.302 | 4 | 120 | .063 |
| EE | .483 | 4 | 120 | .748 |
| DP | .500 | 4 | 120 | .736 |
| PA | 2.748 | 4 | 120 | .056 |
| JD | 1.894 | 4 | 120 | .116 |
| JR | 1.500 | 4 | 120 | .207 |

### *3.5.2. ANOVA for School Quintile and Workplace Bullying*

A one-way ANOVA was conducted to compare WPB and school quintile, where quintiles 1, 2 and 3 are under-resourced, no-fee schools while quintiles 4 and 5 are better or the best resourced schools. There was a significant difference in school quintiles and teachers' reports of WPB at the p < .05 level $F(5, 120) = 16.164$, $p < .05$. Further investigation into these differences was obtained through post hoc comparisons using the Tukey HSD test (Field, 2018). The mean score difference for quintile 1 schools, the most under-resourced schools ($M = 69.37$, $SD = 17.39$), was significantly different to quintile 4 schools, better resourced schools ($M = 43.36$, $SD = 13.39$), at the $p < .05$ level, with the mean difference = 26.01, $p < .001$. The mean score difference for quintile 1 schools ($M = 69.37$, $SD = 17.39$) was also significantly different to quintile 5 schools, the best resourced schools ($M = 44.14$, $SD = 14.20$), with the mean difference = 25.23, $p < .001$. These results suggest that WPB among participants differed significantly between school quintiles. Specifically, the results indicate that teachers in the poorest resourced schools experience higher levels of WPB compared to those in better resourced schools.

### *3.5.3. ANOVA for School Quintile and Emotional Exhaustion*

A one-way ANOVA was conducted to compare EE and school quintile. There was a significant difference in school quintile and teachers' experiences of EE at the p < .05 level $F(5, 120) = 3.992$, $p < .05$. To investigate these differences, post hoc comparisons were conducted using the Tukey HSD test. The mean score difference for quintile 1 schools, ($M = 23.84$, $SD = 9.86$) was significantly different to quintile 4 schools ($M = 15.93$, $SD = 12.41$) at the $p < .05$ level, with the mean difference = 7.92, $p < .05$. These results suggest that EE differs significantly between the categories of school quintiles 1 and 4. Specifically, the results indicate that teachers in the poorest resourced schools experience higher levels of EE compared to those in better resourced schools.

### *3.5.4. ANOVA for School Quintile and Depersonalisation*

A one-way ANOVA was conducted to compare DP and school quintile. There was a significant difference in school quintile and teachers' experiences of DP at the p < .05 level $F(5, 120) = 3.851$, $p < .05$. To investigate these differences, post hoc comparisons were conducted using the Tukey HSD test. The mean score difference for quintile 1 schools ($M$ = 16.38, $SD$ = 8.38) was significantly different to quintile 4 schools ($M$ = 8.32, $SD$ = 8.42) at the $p < .05$ level, with the mean difference = 8.05, $p < .05$. The mean score difference for quintile 1 schools ($M$ = 16.38, $SD$ = 8.38) was also significantly different to quintile 5 schools ($M$ = 10.73, $SD$ = 9.25), with the mean difference = 5.65, $p < .05$. The results are therefore indicative that teachers in the poorest resourced schools experience higher levels of DP compared to those in better or the best resourced schools.

### *3.5.5. ANOVA for School Quintile and Personal Accomplishment*

A one-way ANOVA was conducted to compare PA and school quintile. There was a significant difference between school quintiles and experiences of PA $F(5, 120) = 2.573$, $p < .05$. Further investigation into these differences was obtained through post hoc comparisons using the Tukey HSD test, which yielded interesting results. The mean score difference for quintile 1 schools ($M$ = 29.28, $SD$ = 4.99) was significantly different to quintile 2 schools, ($M$ = 40.50, $SD$ = 2.12) at the $p < .05$ level, with the mean difference = −11.22, $p < .05$. The mean score difference for quintile 1 schools ($M$ = 29.28, $SD$ = 4.99) was also significantly different to quintile 4 schools, ($M$ = 33.89, $SD$ = 8.08), with the mean difference = −4.61, $p < .05$. The results indicate that PA differs between school quintiles. However, this relationship was unclear given that teachers in school quintile 2 experienced the greatest levels of PA. The results do, however, lend to the idea that teachers in the poorest resource schools experience the lowest levels of PA.

### *3.5.6. ANOVA for School Quintile and Job Demands*

A one-way ANOVA was conducted to compare JD and school quintile. There a significant difference in school quintiles and teachers' JD for the five groups $F(5, 120) = 2.066$, $p < .05$. Further investigation into these differences was obtained through post hoc comparisons using the Tukey HSD test. The mean score difference for quintile 1 schools ($M$

= 37, *SD* = 5.66) was significantly different to quintile 5 schools, (*M* = 32.18, *SD* =5.82) at the $p < .05$ level, with the mean difference = 2.45, $p < .05$. The results suggest that JD differ significantly between school quintiles. Specifically, teachers in the poorest resourced schools experience higher levels of JD compared to those in the best resourced schools.

### *3.5.7. ANOVA for School Quintile and Job Resources*

A one-way ANOVA was conducted to compare JR and school quintile. There a significant difference in school quintiles and teachers' JR $F(5, 120) = 4.577$, $p < .001$. Further investigation into these differences was obtained through post hoc comparisons using the Tukey HSD test. The mean score difference for quintile 1 schools (*M* = 88.66, *SD* = 14.64) was significantly different to quintile 4 schools, (*M* = 103.29, *SD* = 20.00) at the $p < .05$ level, with the mean difference = -14.64, $p < .05$. The mean score difference for quintile 1 schools (*M* = 88.66, *SD* = 14.64) was also significantly different to quintile 5 schools (*M* = 102.08, *SD* = 17.03), with the mean difference = -13.42, $p < .05$. These results suggest that JR differ significantly according to school quintile, in that teachers in the poorest resourced schools have access to fewer JR compared to those in better resourced schools.

**Table 3.13**

*Summary of ANOVA for School Quintile*

| Variables | *Source* | *Sum of Squares* | *df* | *Mean Square* | *F* | *Sig.* |
|---|---|---|---|---|---|---|
| WPB | Between groups | 15412.043 | 5 | 3853.011 | 16.164 | .000 |
| | Within groups | 28366.195 | 120 | 238.371 | | |
| EE | Between groups | 2352.004 | 5 | 470.401 | 3.992 | .002 |
| | Within groups | 14141.327 | 120 | 117.844 | | |
| DP | Between groups | 2957.249 | 5 | 306.726 | 3.851 | .003 |
| | Within groups | 10382.297 | 120 | 79.654 | | |
| PA | Between groups | 2348.315 | 5 | 146.790 | 2.573 | .030 |
| | Within groups | 6627.773 | 120 | 57.057 | | |
| JD | Between groups | 195.261 | 5 | 48.815 | 2.066 | .040 |
| | Within groups | 2811.721 | 120 | 23.628 | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| JR | Between groups | 5591.929 | 5 | 1397.982 | 4.577 | .002 |
| | Within groups | 36344.689 | 120 | 305.418 | | |

*Note: df = degrees of freedom*

### 3.6. Moderated Multiple Regression (MMR)

Prior to conducting the MMR analyses, the MMR assumptions outlined in the methods chapter on page 47 needed to be met. All variables were measured at a continuous level, with normally distributed, linear data and independent random sampling as demonstrated above. Added to this, the assumption of homoscedasticity (or homogeneity of variance) was met. Furthermore, the assumption of the relationship between the demographic variables and the dependent variables was investigated above. Ultimately the demographic variable of school quintile was significantly related to all three dependent variables and was therefore included in the MMR analyses as a covariate. While the assumption of no outliers was previously met, Haye's (2013) PROCESS Model 2 requires a more robust determination of outliers. As such, additional analyses were run to eliminate outliers. Furthermore, the assumption of absence of collinearity needed to be investigated.

#### *3.6.1. Testing for MMR Assumptions*

**3.6.1.1. Absence of Outliers and Influential Data Points.** To determine the influential data points in the regression analyses, the *Malhanobis distance*, *Cook's distance* and the *Leverage statistic* were calculated and cases with cause for concern were removed from each MMR analysis accordingly. The *Malhanobis distance* measures the extent to which a case will influence the regression equation through the examination of the distance of the cases from the mean(s) of the predictor variable(s) (Field, 2018). The higher the case, the more influential it is. Barnett and Lewis (1984) produced a table of crucial values based on the number of predictors and the sample size. The crucial Malhanobis value for this study was identified as 18.47. *Cook's distance,* on the other hand, measures the overall influence of a case on the regression model. According to Cook and Weisberg (1982), values greater than 1 may be cause for concern. Finally, the *leverage statistic* measures the influence of the outcome variable over the predicted values (Field, 2018). It is recommended that twice

the average of the leverage value (2(*k* +1)/n) where *k* is the number of predictors in the model and *n* is the number of participants, be used as the crucial value for identifying cases having undue influence (Hoaglin & Welsch, 1978).

**3.6.1.2. Absence of Collinearity.** The assumption of the absence of collinearity needs to be met to allow for MMR to take place. An absence of collinearity i.e., the predictors are not too highly correlated with each other, can be determined in two ways. The first looks at Pearson's correlation coefficients between predictors, with correlations above .7 indicative of multicollinearity (Field, 2018). According to Table 3.7, the correlation between the predictors of WPB, JD and JR were $r = .550$, $p < .001$; $r = -.597$, $p < .001$ and $r = .252$, $p < .001$ respectively, all of which are less than the cutoff point of .7. Multicollinearity can also be assessed by looking at the tolerance and Variance Inflation Factor (VIF) statistics. The tolerance values should be greater than .2 according to Menard (1995) and the VIF statistic should be less than 10 (Myers, 1990). Based on the values obtained in Table 3.10, all tolerance values were greater than .2 and VIF statistics less than 10. Therefore, the assumption of the absence of collinearity was met.

**Table 3.14**

*Collinearity Statistics*

| | Tolerance | VIF |
|---|---|---|
| WPB | .367 | 2.722 |
| JD | .725 | 1.380 |
| JR | .572 | 1.747 |
| School Quintile | .722 | 1.386 |

a. Dependent Variables: EE, DP and PA

### *3.6.2. Moderated Multiple Regression Model Summaries*

Six predictor variables were added to each of the three MMR models namely WPB, JD, JR, School Quintile and two interaction effects (WPB x JD and WPB x JR).

**3.6.2.1. Model 1.** The first model accounted for 37.37% of the variance in EE, the outcome variable, $F(6,118) = 11.735$ , p <.001, $R^2 = .3737$. Therefore, the model predicted a medium amount of variance in EE.

**3.6.2.2. Model 2.** This model predicted 35.87% of the variance in the outcome variable of depersonalisation $F(6,119) = 11.096$, $p < .001$, $R^2 = .359$. Therefore, this model predicted a medium amount of variance in DP.

**3.6.2.3. Model 3.** This model predicted a small amount of variance in PA, the outcome variable $F(6,118) = 5.033$, $p < .001$, $R^2 = .204$. Thus, the six predictors accounted for 20.38% of the variance in PA.

**Table 3.15**

*Moderated Multiple Regression Summaries*

| Model Number | Outcome Variable | *R* | $R^2$ | *df* | *F* | *Sig.* |
|---|---|---|---|---|---|---|
| 1 | EE | .611 | .374 | 6<br>118 | 11.735 | .000 |
| 2 | DP | .599 | .359 | 6<br>119 | 11.096 | .000 |
| 3 | PA | .451 | .204 | 6<br>118 | 5.033 | .000 |

### *3.6.3. Moderated Multiple Regression: Emotional Exhaustion as the Outcome Variable*

This model revealed that there was one significant main effect and no interaction (moderation) effects among the variables. According to this model, there was a significant main effect in that JR were found to predict EE, $b = -.291$, $t(118)$, $p < .05$. Therefore, in the presence of JR, teachers' experiences were lower and in the absence of JR, EE was higher.

However, WPB did not predict the outcome variable of EE, $b = -.981$, $t(118) = -1.76$, $p = .118$. Similarly, JD, $b = -.124$, $t(118) = -.196$, $p = .081$ and School Quintile, $b$ .029, $t(118) = .049$, $p = .961$ did not predict EE.

Additionally, the interaction effects of WPB x JD, $F(1, 118) = 2.719$, $\Delta R^2 = .0144$, $p = .102$ and WPB x JR $F(1, 118) = 2.458$, $\Delta R^2 = .013$, $p = .120$ and the addition of both

interaction effects (WPB x JD and WPB x JR) $F(2, 118) = 2.172$, $\Delta R^2 = .023$, $p = .119$ were insignificant and accounted for a small amount of variance in EE (1.44%, 1.3% and 2.31% respectively).

**Table 3.16**

*Moderated Multiple Regression: Emotional Exhaustion as the Outcome Variable*

| | *B* | *SE B* | *t* | *p* |
|---|---|---|---|---|
| Constant | 44.752 | 28.44 | 1.574 | .118 |
| WPB | −.981 | .557 | −1.762 | .081 |
| JD | −.124 | .635 | −.196 | .845 |
| WPB x JD | .021 | .013 | 1.649 | .102 |
| **JR** | **−.291** | **.145** | **−2.017** | **.047** |
| WPB x JR | .004 | .003 | 1.568 | .120 |
| Quintile | .029 | .577 | .049 | .961 |

### *3.6.4. Moderated Multiple Regression: Depersonalisation as Outcome Variable*

This model demonstrates that a significant main effect was found, and that significant moderation took place. WPB significantly predicted DP, $b = .448$, $t(6, 119) = -2.583$, $p < .05$, a main effect. Thus, in the presence of WPB, DP among participants were higher and in the absence of WPB, DP was lower.

Additionally, JD moderated the relationship between WPB and DP. The addition of the interaction, $F(6,119) = .8.479$, $p < .05$, $\Delta R^2 = .046$ accounted for a small amount of variance (4.57%) in DP. Interestingly, the addition of both interaction effects (WPB x JD and WPB x JR) was also significant, accounting for 4.81% of the variance in DP, $F(6, 119) = 4.464$, $\Delta R^2 = .048$, $p < .05$. JR however, did not moderate the relationship between WPB and DP, $b = .002$, $t(6,119) = 1.101$, $p = .2733$.

**3.6.4.1. Interaction Effect Simple Slopes Analysis.** Following the discovery of significant moderation, the nature of the interaction should be explored. A simple slopes analysis graph (see Figure 3.1) was constructed to allow for an easier interpretation of the

interaction effect (Hayes, 2013). According to Figure 3.1, as JD *increased* (from low to high), the relationship between WPB and DP was *boosted*. At low JD, an increase in WPB led to a small increase in DP. This relationship strengthened as JD were increased. At high JD, an increase in WPB led to the highest increase in DP. JD thus moderated (boosted) the relationship between WPB and DP. Therefore hypothesis (iv) is partially supported by the results of this study, as JD only moderated the DP subcomponent of burnout.

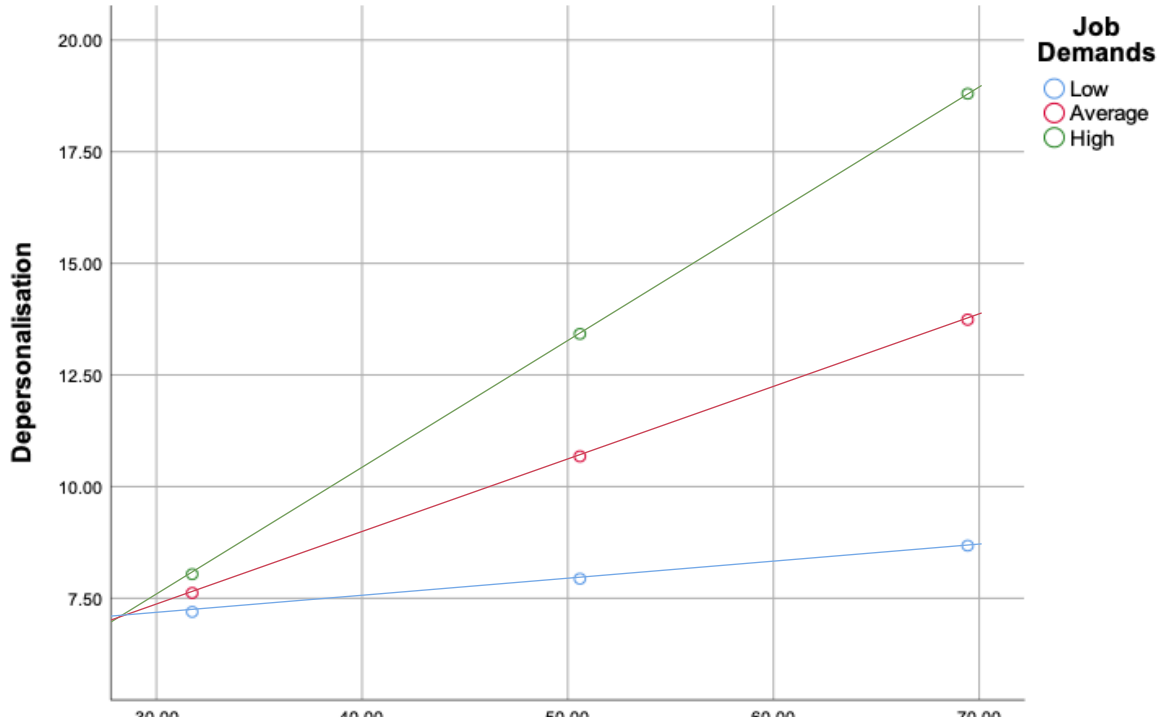
**Table 3.17**

*Moderated Multiple Regression: Depersonalisation as the Outcome Variable*

| | *B* | *SE B* | *t* | *p* |
|---|---|---|---|---|
| Constant | 57.872 | 23.282 | 2.486 | .014 |
| **WPB** | **−1.156** | **.448** | **−2.582** | **.011** |
| JD | −.915 | .521 | −1.757 | .082 |
| **WPB x JD** | **.031** | **.011** | **2.912** | **.004** |
| JR | −.218 | .1183 | −1.847 | .067 |
| WPB x JR | .0023 | .0021 | 1.101 | .273 |
| Quintile | .017 | .474 | .036 | .972 |

**Figure 3.10.**

*Simple Slopes Analysis for the Moderation of Job Demands on Workplace Bullying and Depersonalisation*



### *3.6.5. Moderated Multiple Regression: Personal Accomplishment as Outcome Variable*

This model revealed that there were no significant main effects at the $p < .05$ level and therefore no interaction (moderation) effects.

WPB, JD, JR and school quintile did not predict PA $b = -.117$, $t(118) = -.277$, $p = .782$; $b = -.169$, $t(118) = .349$, $p = .727$; $b = .198$, $t(118) = 1.800$, $p = .0.75$; $b = -.711$, $t(118) = -1.621$, $p = .108$ respectively.

Further to this, the interaction effects of WPB x JD, $F(1, 118) = .230$, $\Delta R^2 = .0015$, $p = .633$ and WPB x JR $F(1, 118) = 705$, $\Delta R^2 = .0048$, $p = .403$ and the addition of both interaction effects (WPB x JD and WPB x JR) $F(2, 118) = .0076$, $\Delta R^2 = .0076$ , $p = .570$ were insignificant and accounted for a minor amount of variance in PA ( .15%, .48% and .76% respectively).

**Table 3.18**

*Moderated Multiple Regression: Personal Accomplishment as the Outcome Variable*

| | *B* | *SE B* | *t* | *p* |
|---|---|---|---|---|
| Constant | 14.289 | 21.614 | .661 | .510 |
| WPB | −.117 | .423 | −.277 | .782 |
| JD | −.169 | .483 | .349 | .727 |
| WPB x JD | .005 | .010 | .479 | .633 |
| JR | .198 | .110 | 1.800 | .075 |
| WPB x JR | −.002 | .002 | −.840 | .403 |
| Quintile | −.711 | .439 | −1.621 | .108 |

### 3.7. Summary of Results

1) A significant and moderately strong positive relationship between job demands and workplace bullying was observed.

2) A significant and moderately strong inverse relationship between job resources and workplace bullying was determined. As such, workplace bullying was lower in the presence of job resources and vice versa.

3) A significant and moderately strong positive relationship between workplace bullying and the burnout subcomponents of emotional exhaustion and depersonalisation was determined. Moreover, a slight, yet significant, negative relationship between workplace bullying and personal accomplishment was observed.

4) The main effects observed included job resources significantly predicting emotional exhaustion and workplace bullying significantly predicting depersonalisation.

5) Job demands significantly moderated (boosted) the relationship between workplace bullying and depersonalisation.

6) Job demands did not significantly moderate the relationship between workplace bullying and emotional exhaustion and between workplace bullying and lack of personal accomplishment.

7) Job resources did not have a significant moderating effect on the relationship between workplace bullying and the burnout subcomponents.

# Chapter 4: Discussion

## 4.1. Introduction

This study investigated the context-specificity of WPB among South African teachers and the bullying outcome of burnout from a JD-R perspective. To date, there has been limited exploration of WPB among South African teachers as well as limited investigations into the contextual factors influencing this phenomenon and its adverse effects on teachers (De Vos & Kirsten, 2015). As such, the job characteristics (JD and JR) that may contribute to the emergence and perpetuation of WPB were investigated in this study. At the same time, teachers' experiences of burnout in the form of EE, DP and lack of PA were examined in relation to WPB. Unless adequately addressed, burnout can impact teachers' quality of teaching and the subsequent learning standards of their learners (De Wet & Jacobs, 2014). Using the JD-R model, an understanding of the context in which WPB arises can aid practitioners in the development of context-specific interventions to address this counterproductive workplace behaviour.

The results of this study revealed that a significant relationship exists between job characteristics and WPB among teachers. Moreover, WPB was significantly related to EE, DP and a lack of PA. In the presence of job characteristics, however, the three burnout subcomponents did not uniformly arise as a result of WPB as anticipated. While JD moderated the relationship between WPB and DP, this moderating effect was not observed for the WPB-EE relationship nor the WPB-PA relationship. Similarly, JR did not moderate the relationship between WPB and the three burnout subcomponents. This chapter provides a discussion of the study's findings with reference to the literature reviewed. The theoretical and practical implications, limitations and future recommendations of the present study will conclude the chapter.

## 4.2. Job Characteristics and Workplace Bullying Among Teachers

As predicted, this study's findings demonstrated that teachers' job characteristics were significantly related to WPB. JD were positively related to WPB and JR were negatively related to WPB among teachers. Thus, WPB was higher in the presence of JD, albeit

through a moderate relationship, and substantially lower in the presence of JR. These results are consistent with the Work Environment Hypothesis presented in the literature review on page 19. The teaching profession evidently constitutes a stressful working environment and when JD are high and JR are low, bullying between teachers proliferates an organisation (Ariza-Montes et al., 2018; Bernotaite & Malinauskiene, 2017; van den Broeck et al., 2011). These findings substantiate those of Batchelor (2019). To the researcher's knowledge, Batchelor's (2019) research was the first study to examine the WPB relationship among South African teachers from a qualitative JD-R perspective. According to Batchelor (2019), South African teachers were subject to intense teaching workloads, increased time pressures, learner behavioural challenges, a lack of unilateral decision making and the absence of organisational support. These job characteristics ultimately contributed to the emergence and perpetuation of WPB within the education environment (Batchelor, 2019).

The current study cannot, however, draw a causal link between job characteristics and WPB as only the relational nature of the association between these variables was investigated. It should nonetheless be noted that some studies have pointed to a potential reciprocal job characteristic-WPB relationship (Baillien et al., 2011; Zapf et al., 1999).

#### *4.2.1. Reciprocal Relationship Between Job Characteristics and Workplace Bullying*

In determining the directionality of the job characteristic-WPB relationship, it is important to consider the potential reciprocity between these variables. WPB may contribute to a stressful working environment through high JD and low JR, which may in turn manifest as frustration and strain (Zapf et al., 1999). At the same time, a stressful working environment brought about by high JD and low JR, as well as the resultant frustration and strain, may also contribute to the emergence of WPB (Baillien et al., 2011).

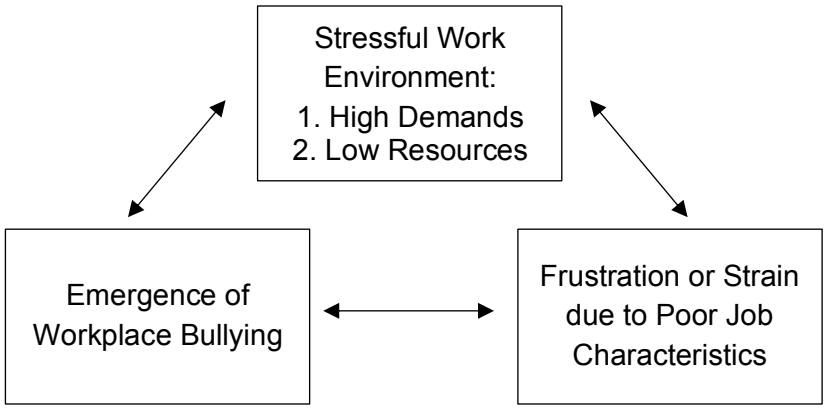
As a start, WPB can initiate a 'loss process' of victims' resources, whereby additional JD are created, and victims are required to use up their existing JR to address WPB behaviours (Hobfoll, 1989). In fact, perpetrators may intentionally increase JD and eradicate JR through WPB's negative social acts, creating a stressful working environment for WPB

victims (Jacobs & De Wet, 2013). More specifically, WPB perpetrators have been found to overload their victims in terms of work demands. This may elicit a sense of powerlessness among victims as they may not possess the capacity to address such work-related overloads adequately (De Vos & Kirsten 2015; De Wet & Jacobs, 2014; Jacobs & De Wet, 2013). Moreover, perpetrators may withhold JR through the use of their formal and non-formal power over victims. Perpetrators of WPB tend to employ their resource power and/or knowledge power to prohibit victims from obtaining the JR necessary to complete their work (Tehrani, 2013). Therefore, WPB could lead to stressful work environments and in turn to frustration and strain due to poor job characteristics (i.e. high JD and a lack of JR).

However, as illustrated by the literature review (pages 19-22), stressful working environments due to high JD and low JR results in frustration and strain. This may then manifest as WPB through either *passive or active ineffective coping* with stressful working environments as well as with *interpersonal conflict.* Further research into the directionality and potential reciprocity of the job characteristics-WPB relationship is therefore warranted. This posited reciprocal relationship between WPB and job characteristics is illustrated in Figure 4.1 below.

**Figure 4.11.**

*The Reciprocal Relationship between Job Characteristics and Workplace Bullying*




### *4.2.2. Job Characteristics, Workplace Bullying and School Quintile*

This study further investigated whether WPB, JD and JR differed among teachers according to demographic characteristics and school quintile. Only school quintile

demonstrated significant differences. The study's results suggested that teachers in the poorest resourced schools (quintile 1) experienced significantly higher levels of WPB compared to those in better resourced fee-paying schools (quintiles 4 and 5). Moreover, as expected, teachers working in quintile 1 schools experienced significantly higher JD and significantly lower JR compared to teachers in quintiles 4 and 5. These results are consistent with previous research investigating the nature of quintile classification, subsequent job characteristics and WPB in South African schools. South African teachers working in lower resourced schools experience higher levels of JD as a result of higher learner to educator ratios and a lack of JR due to a lack of funds as these are 'no fee schools' (Batchelor, 2019; Nconsta & Shumba, 2013; Van Tonder & Fourie, 2015). It is also important to note that the majority of the teachers within the sample (48.4%) taught in quintile 5, the best resourced schools, while 30.3% of teachers taught in the poorest schools classified in quintile 1. However, the relationship between school quintile, WPB and job characteristics within this study should be met with caution as 21.5% of teachers did not indicate their school quintile, potentially leading to skewed results.

### 4.3. Workplace Bullying and Burnout Among Teachers

This study's findings are consistent with previous research, in that the cumulative effects of exposure to stressors such as WPB were significantly related to the development of burnout among teachers. Importantly, 58.67% of the teachers under study experienced moderate to high levels of burnout in relation to its three subcomponents, being EE, DP and lack of PA. Within the European teaching environment, rates of burnout appear to range between 25% to 35%. This indicates that South African teachers may experience higher burnout levels compared to teachers in other countries (Bernotaite & Malinauskiene, 2017). Provided that South African teachers have been deemed three times more likely to experience WPB than their peers, it was assumed that such high levels of burnout would be related to incidences of WPB (Bloch, 2009; Jacobs & De Wet, 2013). However, the results of this study indicated that in the presence of JD and JR, EE, DP and lack of PA may not uniformly arise as a result of WPB as anticipated. These results may be attributed to the role

of time in the stressor-strain relationship. The relationships between WPB among teachers and Maslach and Jackson's (1986) three burnout subcomponents, in the presence of job characteristics, are explored further below.

### *4.3.1. Workplace Bullying and Depersonalisation*

As predicted, WPB was significantly and positively related to DP when measured in teachers. Furthermore, the results of the moderated multiple regression indicated that WPB significantly predicted DP among teachers in the presence of job characteristics. These results align with previous research indicating that bullied teachers tend to be detached from their work, have lost their passion for teaching and are demotivated to work to the best of their abilities (Batchelor, 2019; De Vos, 2013; Jacobs & De Wet, 2013). These results lend to the argument that teacher victims of WPB attempt to minimize the emotional resource loss associated with WPB through psychological distancing. This psychological distancing takes the form of DP, where bullied teachers have been found to exhibit a cynical and distant attitude towards their learners (De Vos, 2013).

### *4.3.2. Workplace Bullying and Emotional Exhaustion*

The finding that a significant positive relationship exists between WPB and EE among teachers is consistent with previous research (Astrauskaitė et al., 2010; Batchelor, 2019; Bernotaite & Malinauskiene, 2017). However, in accordance with the literature, it was expected that teachers' exposure to the stressor of WPB, in the presence of job characteristics, would result in EE due to psychological resource depletion (Mashlach & Jackson, 1986). This relationship stems from COR theory, where WPB as a stressor is believed to deplete a victim's resources, resulting in EE (Anasori et al., 2019; Tuckey & Neall, 2014). Yet, the moderated multiple regression results do not support the direction of this relationship. WPB did not significantly predict the outcome variable of EE in the presence of job characteristics.

### *4.3.3. Workplace Bullying and Personal Accomplishment*

As predicted, a significant negative relationship between WPB and PA was observed. Thus, in the presence of WPB, teachers exhibited a lack of PA, as has been

demonstrated in previous research (Mościcka-Teske et al., 2014). While the relationship between WPB and PA was statistically significant, it was slight and near negligible. It is also important to note that the majority of teachers under study (*n* = 57.6%) experienced high levels of PA and therefore low levels of burnout when measured by this subcomponent. It has, however, been argued that the PA subscale may elicit social desirability bias as a result of the scale item phrasing (Loera, et al., 2014). This item phrasing may lead to a self-imposed verdict of 'failure,' preventing teachers from being honest in their responses (Worley et al., 2008). Therefore, this social desirability bias may have contributed to the weak relationship between WPB and PA. Furthermore, it was anticipated that teachers' exposure to WPB would result in a lack of PA in the presence of job characteristics. However, the moderated multiple regression results did not support this relationship. WPB did not significantly predict the outcome variable of PA.

#### *4.3.4. The Role of Time in Stressor-Strain Relationships*

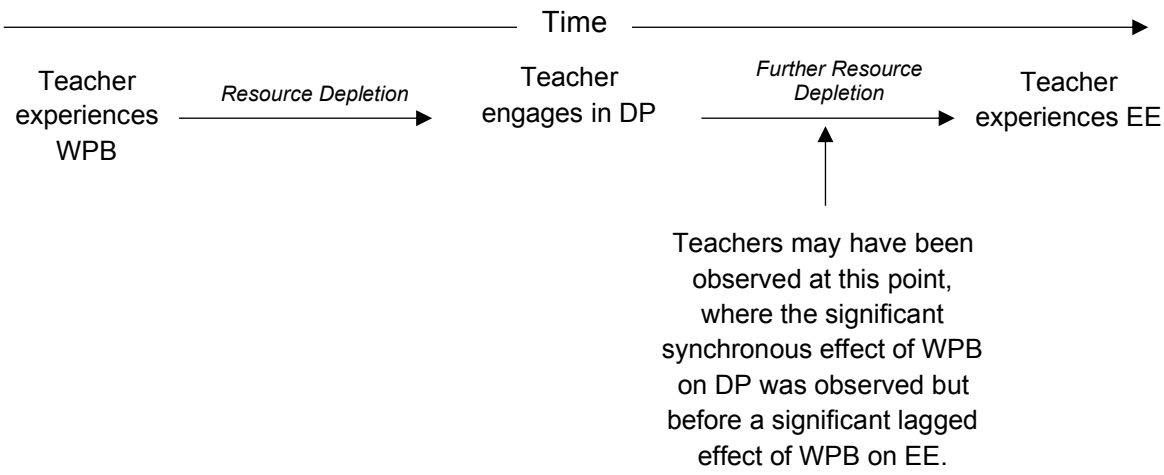
To account for this study's finding that WPB predicted DP while WPB did not predict EE or a lack of PA, the role of time in stressor-strain relationships needs to be unpacked. Based on a meta-analysis of longitudinal studies investigating stressor-strain variables, Ford et al. (2014) distinguish between the *synchronous* and *lagged* effects of stressors. Synchronous effects present when higher levels of the stressor arise concurrently with higher levels of strain. Synchronous effects are therefore 'cross-sectional' in nature. Lagged effects, on the other hand, are more longitudinal, where stressors, and therefore strain, develop over an extended period of time (Ford et al., 2014). Accordingly, the impact of WPB (the stressor) on DP (the strain) may in fact be a synchronous effect. The impact of WPB (the stressor) on both EE (the strain) and a lack of PA (the strain) can, however, be understood as lagged effects. Given this study's cross-sectional nature, teachers' responses were captured at a single point in time. This may account for the detection of the synchronous effect of WPB on DP, where WPB predicted DP among teachers. Furthermore, the absence of the effects of WPB on EE and a lack of PA within this cross-sectional study may therefore point to potential lagged effects. In accordance with the literature reviewed, it

is plausible that the loss of personal resources necessary to result in EE and a lack of PA among teachers may only arise after being exposed to WPB for a significant period of time. Conversely, in the face of WPB as a stressor, teachers may engage in DP immediately to maintain their existing personal resources in order to cope with the stress presented by WPB and its associated negative social acts (Hobfoll, 2001).

This stressor-strain effect argument may further lend to the explanation of the significantly high positive association between DP and EE among teachers observed in this study. In accordance with COR theory, WPB is a stressor that creates significant personal resource depletion as a result of the demands it places on the psychological and physical resources of its victims (Nauman et al., 2019). To counter resource loss as a result of WPB, teachers may distance themselves psychologically in an attempt to conserve their available resources. This alludes to the act of DP, which is thus a synchronous effect of WPB. However, should exposure to WPB continue, where victims' resources are continuously depleted, teachers may exhibit EE. EE would therefore be a lagged effect of WPB, which has also been described as prolonged strain (Anasori, et al., 2020). Provided that half of the teachers under study described feelings of moderate to high EE, it may be that EE was yet to arise among bullied teachers as depicted in Figure 4.2.

**Figure 4.12.**

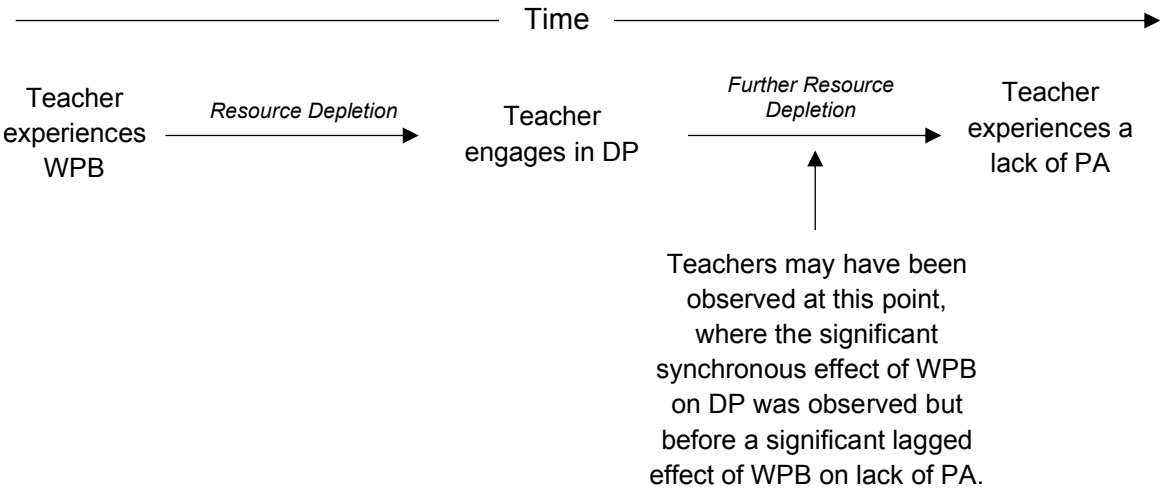
*The Synchronous and Lagged Effects of Workplace Bullying, Depersonalisation and Emotional Exhaustion*



At the same time, the stressor-strain relationship may also impact upon WPB victims' self-efficacy. In accordance with Lazarus and Folkman's (1984) Cognitive Theory of Stress and Coping, situations are perceived as stressful when individuals believe that they cannot successfully cope with stressors. In the context of DP and a lack of PA, it may be that teachers initially engage in DP to prevent resource loss as a result of WPB, a synchronous effect. However, should this resource conservation strategy fail, self-efficacy and self-esteem may be impaired. This could result in a lack of PA among teachers, indicative of a lagged effect of WPB (Wright & Hobfoll, 2004). This argument is supported by the significant negative association between DP and PA and is illustrated in Figure 4.3.

**Figure 4.13.**

*The Synchronous and Lagged Effects of Workplace Bullying, Depersonalisation and Lack of Personal Accomplishment*




### 4.4. The Role of Job Demands

The moderating role of JD on the WPB-Burnout relationship was predicated on the JD-R model, which maintains that job characteristics influence work related strain or burnout as well as the work engagement of employees (Bakker & Demerouti, 2014). However, the prediction that JD would moderate the WPB-burnout relationship was only partially supported by the results of this study. An interaction, and thus moderating effect, of JD was determined for the WPB-DP relationship. A discussion of these findings follows below.

### *4.4.1. Job Demands and the Workplace Bullying-Depersonalisation Relationship*

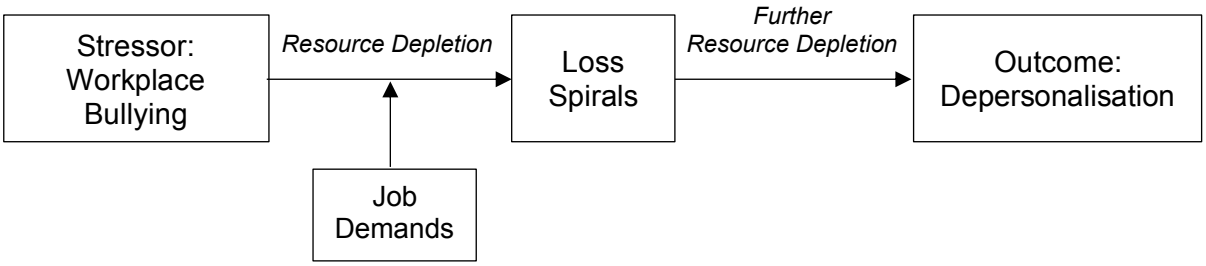
In line with predictions, JD moderated the relationship between WPB and the burnout subcomponent of DP among the teachers under study. As JD increased, the relationship between WPB and DP was amplified. A boosting effect of JD on the WPB-DP relationship among teachers was therefore observed. This moderating relationship further alludes to the synchronous effect of WPB on DP as demonstrated in stressor-strain discussion above.

COR theory can be drawn upon to understand why this moderation effect occurs among South African teachers. Ultimately, WPB is a stressor that creates significant personal resource depletion among teachers. In attempt to conserve their psychological and physical resources, teachers may withdraw from their work and maintain a distant attitude towards their learners. This withdrawal may manifest as reduced loyalty, mediocrity and apathy towards their learners, behaviours aligned to the burnout subcomponent of DP (De Wet, 2010). Additionally, the relationship between WPB and DP is exacerbated by JD, which have been found to deplete personal resources used to cope with WPB faster than they can be replenished (Freedy & Hobfoll, 1994). South African teachers are subject to high JD as a result of continuous organisational, political and societal reforms of the South African education system (Jacobs & De Wet, 2013). Therefore, as JD increase for teachers, a cascading loss of resources, or 'loss spirals', can arise (Hobfoll, 1998). Once loss spirals are initiated as a result of WPB and are exacerbated by the JD that teachers face, the subsequent loss of resources makes victims less resilient to the negative social acts associated with WPB (Wright & Hobfoll, 2004). In line with Meijman and Mulder's (1998) Recovery Theory, when individuals do not have the opportunity to recover from stressors such as WPB while making efforts to meet JD, their energy levels are drained, and burnout (or in this case DP among teachers) increases (Livne & Goussinsky, 2018).

The depiction of the WPB-DP relationship among teachers as demonstrated by this study's results is illustrated in Figure 4.4. This figure was constructed in accordance with COR theory's notion of resource depletion, as put forward by Hobfoll (1989).

**Figure 14.4.**

*The Moderating Role of Job Demands on the Workplace Bullying-Depersonalisation Relationship and the Conservation of Resources Theory (Adapted from Hobfoll, 1989)*




### *4.4.2. Job Demands and the Workplace Bullying-Emotional Exhaustion Relationship*

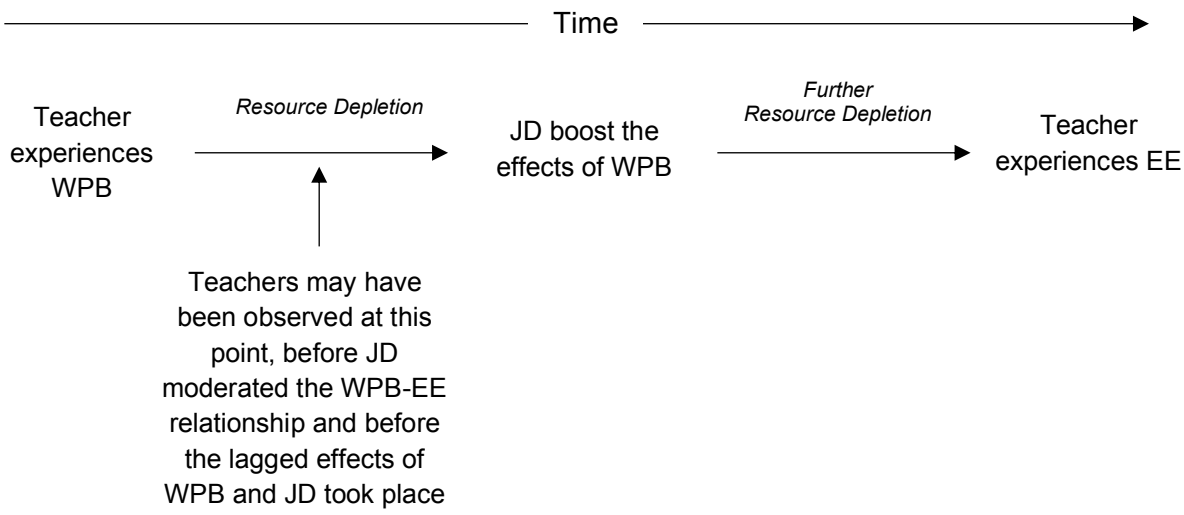
Contrary to predictions, JD did not moderate the WPB-EE relationship. Furthermore, despite there being a significant positive relationship between these variables, neither WPB nor JD significantly predicted EE. These findings contradict prevailing literature. JD have been determined to lead to high work-related strain, which wears out employees' strength and energy. This in turn can leave them in a state of EE (Anasori et al., 2019; Bakker & Demerouti, 2007; Koon & Pun, 2018). Moreover, previous research has determined that WPB exposure results in employees feeling more exhausted and less efficient at work and that JD can exacerbate such experiences (Bakker & Demerouti, 2007; Giorgi et al., 2016). The structural relationship between WPB, JD and EE therefore becomes relevant. Within this relationship, it is apparent that WPB and EE did not change as a function of JD, in that JD did not enhance this relationship. Two explanations of these findings emerged following a review of the literature, with the first being the lagged effects of WPB and the second being an alternate structural path of the WPB-EE relationship.

**4.4.2.1. The Lagged Effects of Workplace Bullying.** As discussed above, the role of time in the stressor-strain relationship may further account for the absence of the moderating effect of JD on the WPB-EE relationship (Ford et al., 2014). At the time during which the teachers were observed, the lagged effects of the stressors of WPB and JD may not have emerged in the form of EE yet. It is therefore possible that teachers' experiences of

WPB were recorded before any interaction effect occurred. This may account for the absence of a moderating effect of JD on the WPB-EE relationship as well as the fact that WPB did not predict EE in the presence of job characteristics. An illustration of the lagged effects of WPB in this sense is illustrated in Figure 4.5 below.

**Figure 4.15.**

*The Lagged Effects of Workplace Bullying and Job Demands on Emotional Exhaustion*



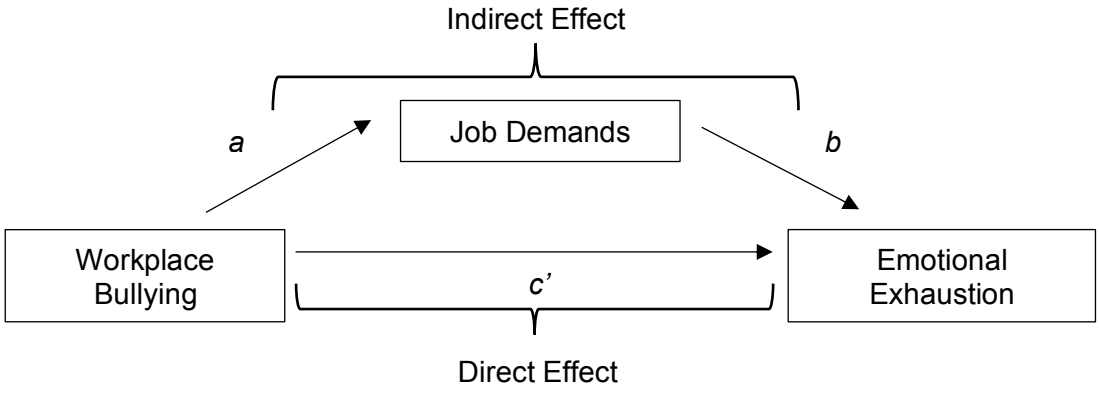

#### 4.4.2.2. Structural Path of the Workplace Bullying-Emotional Exhaustion Relationship.

Rather than boosting or altering this relationship, JD may in fact explain the relationship between WPB and EE, accounting for the causal link between these variables. In this sense, the negative social acts associated with WPB may result in an increase of JD, perpetuating a loss process that may manifest as EE (De Vos & Kirsten 2015; De Wet & Jacobs, 2014). This pathway would be consistent with qualitative research demonstrating that WPB creates unsafe working conditions characterised by high JD. Continual effort to meet such demands can drain an individual's energy, leading them to feel emotionally exhausted (EE) (Baillien et al., 2011; Batchelor, 2019; Law et al., 2011). Thus, JD may act as a mediating variable, having either a direct or indirect effect on the aforesaid relationship, which may in turn explain the WPB-EE relationship itself. The mediating effects of JD fall beyond the scope of this study as literature pointed to a moderating relationship between the

variables of interest (De Wet, 2014; Jacobs & De Wet, 2013; Bakker & Demerouti, 2007). However, the posited pathway below (see Figure 4.6) can be used for future research into such a mediating relationship.

**Figure 4.16.**

*The Posited Mediation Relationship Between Workplace Bullying, Job Demands and Emotional Exhaustion*




### *4.4.3. Job Demands and the Workplace Bullying-Personal Accomplishment Relationship*

Contrary to predictions, JD did not moderate the WPB-PA relationship. Neither WPB nor JD significantly predicted a lack of PA. Moreover, the relationship between JD and PA, while negative, was insignificant. Given this insignificant relationship, the potential explanation of the lagged effects of JD as a stressor in relation to a lack of PA cannot be investigated in this study. However, two reasonable alternative explanations for such findings exist, with the first being the relationship between individual dispositions and PA among teachers, and the second being the social desirability bias associated with this burnout subscale.

**4.4.3.1. Individual Dispositions and the Workplace Bullying-Personal Accomplishment Relationship.** The results of this study may lend to research indicating that the burnout subcomponents of EE and DP among teachers are more commonly associated with environmental stressors, while PA among teachers is related to personality and coping (Khan et al., 2014; Kokkinos, 2007; Verhoeven et al., 2003). Accordingly, the

WPB-PA relationship may rather be predicated on individual dispositions compared to the Work Environment Hypothesis. Therefore, JD would not have significantly affected teachers' experiences of PA. Rather, teachers' individual dispositions may have acted as moderating factors of the WPB-PA relationship. As such, further investigation into teachers' individual dispositions insofar as they relate to coping mechanisms and personality in relation to WPB and PA is warranted.

**4.4.3.2. Social Desirability Bias.** As previously discussed, there may have been a degree of social desirability in the responses to PA items due to the scale item phrasing (Loera, et al., 2014). Teachers may not have been honest in their responses. Therefore, the results obtained may have been influenced by the existence of response bias, further contributing to the reason for the absence of an observed moderating effect of JD on the WPB-PA relationship.

## 4.5. The Role of Job Resources

Antithetical to predictions made, JR did not moderate the WPB-burnout relationship for EE, DP or lack of PA. According to the JD-R Model, it was proposed that JR would buffer these relationships, in that the effects of WPB on burnout among bullied teachers would be reduced by JR (Bakker & Demerouti, 2007). The results of this study therefore fail to provide evidence in support of the buffering effects of JR on the WPB-burnout relationship previously demonstrated by WPB researchers (Ariza-Montes et al., 2016; De Beer, 2014; Gardner et al., 2013; Livne & Goussinsky, 2018). A multitude of plausible explanations exist as to why the moderating effect of JR on the WPB-EE, WPB-DP and WPB-PA relationships was not reflected. These explanations include the prevention of overall resource loss in line with COR theory, the cross-sectional nature of the study and alternative timing effects, the interaction effects of JD and JR and the existence of extraneous variables beyond the scope of this research study.

### *4.5.1. Resource Loss Prevention*

One possible explanation for the absence of such a buffering relationship is that the deleterious effects of WPB among teachers had already dispersed within the schools. As

depicted in COR theory, losing resources individuals centrally value is more salient than gaining such resources (Hobfoll, 2001). Therefore, it may be that the high JD teachers were facing overrode the efficacy of any JR. As such, teacher victims of WPB may not have possessed the energy to make use of their available JR. In addition, to conserve their remaining resources and to prevent overall resource loss, victims may have withheld from mobilising or utilising their available JR. Accordingly, no buffering effect was observed. Even in the presence of JR, which were moderate to high among teachers, the victims of WPB may still have experienced loss spirals as a result of WPB (Hobfoll, 2001). This in turn would have contributed to the emergence of EE, DP and a lack of PA among teachers as demonstrated by the results of this research.

#### *4.5.2. Timing Effects*

In line with the cross-sectionality critique of this research (in that teachers' responses were captured at a single point in time), it may be that timing effects could offer an explanation as to why JR's hypothesised buffering effect on the WPB-burnout relationship was not observed. This is an alternative proposition offered to that of the synchronous and lagged effects described above, and these arguments are therefore mutually exclusive.

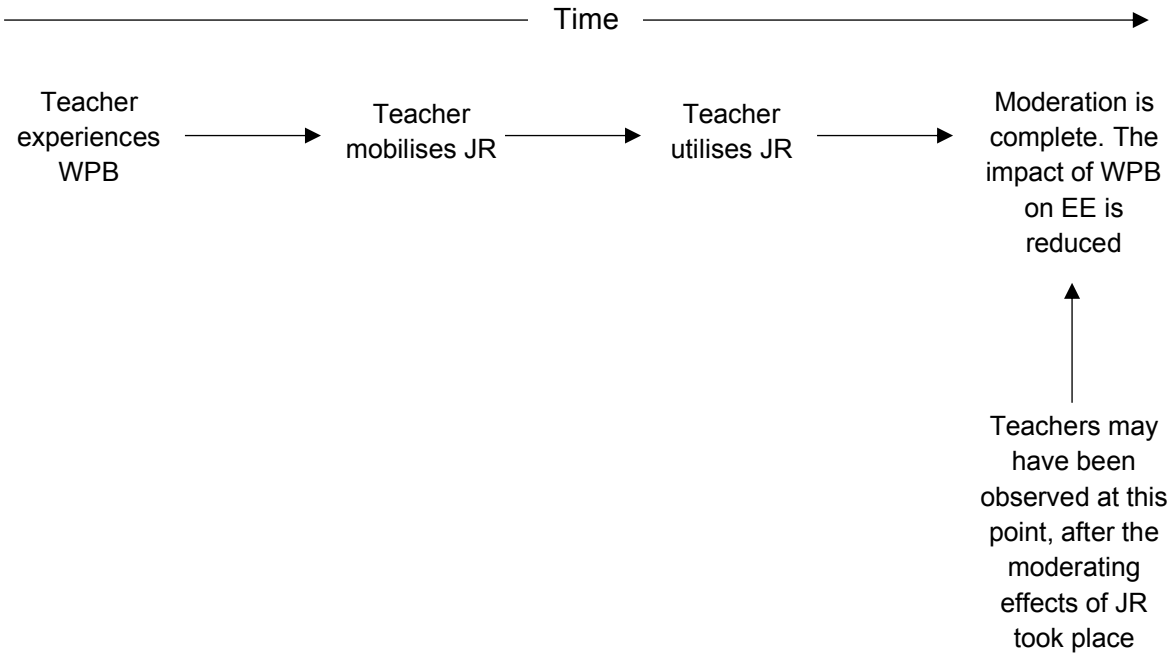
The results of this study lend to the notion that JR are used by victims to cope with the stressor of WPB in that a significant negative association between these variables was observed. However, for a moderating effect to be determined, teachers needed to be assessed at the *exact time* that they were experiencing WPB and at the *exact time* that they were utilising JR to cope with this stressor, thereby mitigating its adverse effects (Bernstein, 1992). The moderation of JR on the WPB-burnout relationship may therefore have already taken place. As such, the effects of the moderation may not have been recorded.

This timing effect may have come into play specifically in the WPB-EE relationship. One main effect was determined for JR and the burnout subcomponents, whereby JR were only found to significantly predict EE. Ultimately, teachers may have been observed after the moderation of JR on the WPB-EE relationship had already taken place (Crozet, 2020). This may have resulted in only the post-interaction levels being identified, accounting for the high

levels of JR, the moderate levels of WPB and the lower levels of EE observed. See Figure 4.7. for the diagrammatic representation of this alternative timing effect.

**Figure 4.17.**

*The Timing Effect of the Job Resources Moderating Process*




### *4.5.3. Interaction between Job Demands and Job Resources*

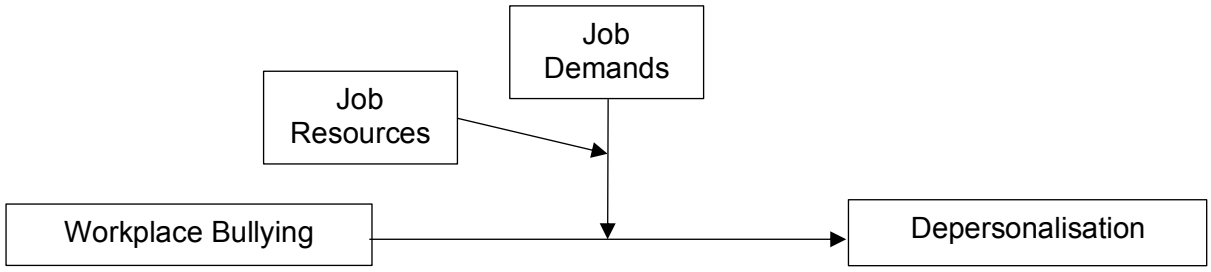
While JR did not buffer the WPB-DP relationship alone, it is important to note that the addition of both interaction effects, namely JD on the WPB-DP relationship and JR on the WPB-DP relationship, was significant. In accordance with the JD-R theory, JR may offset the negative impact of JD on employee wellbeing. This notion has gained extensive empirical support, where employees provided with necessary JR were shown to better cope with JD, buffering the outcome of burnout (Ariza-Montes et al., 2016; Bakker & Demerouti, 2007; Schaufeli et al., 2009). Thus, in the case of this research study, certain JR may help alleviate the DP experienced by bullied teachers in the face of high JD and WPB. Additionally, JD may amplify the importance of bullied teachers possessing JR. The significance of the addition of both interaction effects supports JD-R theory's conceptualisation of the interaction between job characteristics and the effects that this has on employee strain and

motivation i.e., burnout and work engagement (Bakker & Demeroti, 2007). Moreover, the significant addition of both interactions contributes to the empirical findings that link the bullying-outcome of burnout to the Work Environment Hypothesis in relation to the JD-R Theory (Tuckey & Neall, 2014; van den Broeck et al., 2011). Certain JR, such as those measured by the JDRS (namely growth opportunities, organisational support and advancement), may therefore aid teachers in combatting the exigent demands inherent in their jobs to the extent that they buffer the WPB-DP relationship (see Figure 4.8).

Finally, the absence of the interaction effect of JD and JR on the WPB-EE and WPB-PA relationships may be the result of the distinction made between synchronous and lagged effects. It is possible that within a longitudinal study the addition of the interaction effects between JD and JR in relation to EE and a lack of PA may be observed.

**Figure 4.18.**

*The Moderating Relationship of Job Demands and Job Resources on the Workplace Bullying-Depersonalisation Relationship*




### *4.5.4. Extraneous Variables*

Additional extraneous variables that could have come into play in the WPB-burnout relationships may have concealed the moderating impact of JR. Given the complex nature of the WPB construct, together with the limited scope of this research study, it was not possible to measure every extraneous variable that may affect the WPB-burnout relationship. It may however be the case, for example, that social support external to the workplace, as well as the individual dispositions of coping and personality may have already moderated the WPB-EE, WPB-DP and WPB-PA relationships. Accordingly no buffering effect of JR would have

been observed, as other unmeasured variables may have been mobilised and utilised already to buffer these relationships. These additional extraneous variables and their possible moderating effects are discussed below.

**4.5.4.1. External Social Support.** Teachers may ultimately have access to numerous sources of social support. From a job-related perspective this could be co-worker and supervisor support, while from a personal perspective, social support may arise from spouses, family members and friends (Halbesleben, 2006). In the context of this research study, the measure of social support was limited to a job-related perspective. Importantly, individuals providing social support to victims within the schooling context may in fact be WPB perpetrators. Such providers of workplace social support could be perpetrators who possess positional power, such as supervisors or principals, as well as co-workers with personality or relationship power (Tehrani, 2013). Therefore, teacher victims of WPB may withhold from making use of the JR of social support. Rather, it may be that these victims of WPB were receiving external social support which buffered the effects of WPB. As such, workplace social support would be rendered unimportant in the context of WBP. This argument is supported by this study's results, in that JR were high, potentially indicating that JR were not required by the WPB victims to buffer the WPB-burnout relationship.

**4.5.4.2. Individual Dispositions.** The absence of a moderating effect of JR may also be attributed to the role that individual dispositions play in the WPB-burnout relationship. Research indicates that specific personality traits relating to the Big Five Model can affect an individual's capability to cope with stress (O'Farrell et al., 2018). For example, employees demonstrating high levels of assertiveness have been found to cope more effectively with WPB as they view stressors as challenges rather than threats (Connor-Smith & Flachsbart, 2007). Moreover, employees who exhibit high levels of extraversion and conscientiousness traits are more inclined to use problem-solving to combat phenomena such as WPB (DeLongis & Holtzman, 2005). It is thus plausible that the personality traits of the respondents moderated the WPB-burnout relationship. This would have diminished the importance of JR provided to teachers and its effect as a moderating variable.

Additionally, mastery and experience in coping with workplace stressors such as WPB may account for the absence of the hypothesised moderating effect of JR (Crozet, 2020). A high degree of mastery in dealing with WPB may have affected the extent to which victims utilised JR to cope with this stressor (Bernstein, 1992; Hobfoll, 1985; Mausbach, et al., 2006). Victims previously exposed to WPB incidences may have developed successful mechanisms to cope with WPB-related stress, irrespective of the presence or absence of JR. As such, the moderating effect of JR on the WPB-burnout relationship would not have been evident in this study.

## 4.6. Theoretical and Practical Implications

The findings of this study provide significant theoretical implications for WPB research. Further to this, practical implications can be put forward for South African legislation and context-specific interventions to aid in combatting WPB among teachers.

### *4.6.1. Theoretical Implications*

**4.6.1.1. Empirical Support for Workplace Bullying Research.** This study contributes to the dearth of research investigating WPB among South African teachers. These findings provide empirical support for the context specificity of WPB in relation to the JD-R model. In this regard, the present study provides evidence in favour of the Work Environment Hypothesis, which suggests that WPB is shaped by stressful working environments (Reknes et al., 2018). Teachers, specifically those in poorly resourced schools, experienced high levels of WPB, excessive JD and lower levels of JR. In addition, this study provides empirical support for the WPB-burnout relationship. Burnout is a commonly observed psychological consequence of bullying within the work environment (Trépanier et al., 2013).

**4.6.1.2. Workplace Bullying Among Teachers During the Pandemic.** This study provides a unique perspective on WPB, job characteristics and burnout faced by teachers in South Africa prior to the outbreak of the COVID-19 pandemic and the subsequent pivot to online teaching. In the current unprecedented teaching environment, teachers face compounding job demands such as the work/life priority balance, parental expectations,

changes in time management and the need for technological adaptation (Sokal et al., 2020). Moreover, the pandemic has exacerbated the loss of JR among teachers, specifically in relation to social support and job autonomy (Sokal et al., 2020). This study could therefore be used to compare instances of WPB, burnout and job characteristics prior to COVID-19 to the education climate in South Africa that emerged out of the pandemic. Such a comparison may offer support for the JD-R model in the teaching context should the increase of JD and decrease of JR brought about by the pandemic contribute to and perpetuate the WPB-burnout relationship among teachers.

### *4.6.2. Practical Implications*

**4.6.2.1. Workplace Bullying Legislation and Policy.** South African legislation, as is the case in many countries, lacks specific laws and policies to combat bullying within the workplace (Jacobs & De Wet, 2019). There is ultimately no definition of WPB in South African labour legislation. Furthermore, systems of employee protection outlined in the Employment Equity Act (Act 55 of 1998), the Basic Conditions of Employment Act (Act 75 of 1997), the Labour Relations Act (Act 66 of 1995), and the Compensation for Occupational Injuries and Diseases Act (Act 130 of 1993), fail to prohibit WPB incidents (Le Roux et al., 2010). The results of this study ultimately illustrate the detrimental effects that WPB has on its victims. It is therefore imperative that national anti-bullying policies be introduced, however given the context specificity of WPB, it is advised that anti-WPB policies be sector specific.

In the context of the South African education system, teachers need to be protected against WPB to ensure the quality of education for South African learners. The bullying-outcome of burnout poses a threat to the education system, in that teachers experiencing EE, DP and a lack of PA are less committed to their work, having potentially dire consequences for their learners (De Wet & Jacobs, 2014). There already exists a shortage of skilled South African teachers, thus the aftermath of WPB, which can include increased absenteeism, turnover intentions and lowered overall organisational commitment, has long-term ramifications for the education sector (Batchelor, 2019; Jackson et al., 2006). It is

therefore imperative that the National Department of Basic Education (DoBE) introduces policies to combat WPB in South African schools.

Within the education sector, the DoBE is responsible for developing all education-related policies. A national anti-WPB policy should therefore be developed by the DoBE through collaboration with stakeholders. This policy should draw from research pertaining to anti-WPB programmes to outline the phenomenon of WPB and to provide clear procedures and guidelines for WPB role players, including teachers, management and unions (Jacobs & De Wet, 2018). School governing bodies can adapt DoBE national policies to their own context as long as they align with the Constitution and relevant regulations and legislations (Jacobs & De Wet, 2018). Therefore, a national anti-WPB policy will suffice, as this policy can be adapted accordingly to suit the context of each schooling environment.

**4.6.2.2. Workplace Bullying Interventions.** While a national policy to address WPB is especially important, context-specific WPB interventions need to be implemented within South African schools. These interventions should be created to combat the stressful working environments that South African teachers are subjected to, and in turn may reduce teachers' stress levels and fuel their motivation. Such interventions may therefore assist in ameliorating the current levels of WPB and burnout that teachers are facing. To improve the teaching work environment, these interventions should reduce the JD that teachers face, while increasing JR available to teachers.

Based on research pertaining to the JD-R theory, the following improvements to the South African teaching environments are proposed. The first proposal entails *job role redesign*, where the tasks, duties and responsibilities of teachers are restructured, potentially at a national level. Further to this, training to cope with JD and stressful work environments can be introduced through *Employee Assistance Programmes* (EAP) (Bernstein & Trimm, 2016). These EAPs may disrupt the passive and active ineffective coping mechanisms of victims and perpetrators in response to stressful work environments, potentially decreasing the occurrence of WPB. From a JR perspective, interventions should aim to optimise JR such as *job autonomy*. Teachers should be provided with the opportunity

to exhibit some decision-making latitude over their scope of practice and curriculum (Batchelor, 2019). Finally, increased *social support* for teachers from a job perspective is warranted. Teachers should be granted the opportunity to discuss problems and raise their concerns in relation to their stressful work environments, WPB and experiences of EE, DP and a lack of PA within the schooling context. Given that traditional work-related social support may be provided by WPB perpetrators (as discussed above), it is recommended that social support for teachers be provided by an independent service provider.

### 4.7. Limitations and Recommendations for Future Research

While this study yielded findings that contribute to the body of research on WPB, job characteristics and burnout among teachers, it is not without limitations.

#### *4.7.1. Secondary Data Analysis*

Though the use of secondary data is advantageous, there are limitations to carrying out secondary data analyses (Bryman, 2012). To understand the purpose and nature of the original dataset adequately is a time-consuming endeavour. The validity and quality of the dataset may also come into question through this process. Added to this, the secondary researcher lacks control over the variables, scales and sampling strategy employed by the primary researcher(s) (Bryman, 2012).

In the context of this study, an absence of control over the study's variables and scales was a pertinent limitation. Firstly, the primary researcher did not include the demographic variable of gender within the biographical questionnaire. This prohibited the current researcher from investigating potentially gendered differences in WPB, JD, JR, EE, DP and PA among teachers. Moreover, to capture the relationship between job characteristics, WPB and burnout sufficiently, a revision of the variables of JD and JR may have been necessary. In addition to the use of the JDRS, which is a generalised scale, it may have been beneficial to measure job characteristics specific to the South African teaching context. This would have enhanced the ability to capture the JD and JR that South African teachers are exposed to (Ariza-Montes et al., 2016). Finally, the NAQ-R scale used to measure WPB does not identify the identity of WPB perpetrators, for example superiors,

colleagues or learners. Future research into WPB among teachers should assess the different types of perpetrators of teacher-targeted WPB.

### *4.7.2. Research Design*

This study employed a cross-sectional descriptive research design, using secondary self-report survey data. This type of research design and its subsequent sampling strategy is characterised by inherent limitations.

**4.7.2.1. Cross-Sectional Design.** According to Tredoux and Smith (2006), a cross-sectional descriptive research design prevents the identification of causal relationships between certain variables. While this study focused on evaluating the relationships between WPB, JD, JR and burnout, the establishment of temporal causal relationships between these variables may require a longitudinal research design. This is especially important given the nature of the WPB and burnout measures. The NAQ-R is a retrospective measure, where teachers were asked to report on their previous experiences of WPB (Monsvold et al., 2010). Research indicates that victims of WPB may take months or years to recover from the effects of such negative social acts (Branch et al., 2013; Hallberg & Strandmark, 2006). Therefore, while an average level of bullying was recorded, these results may allude to the victims' recollections of WPB which may not have '*softened'* over time. Conversely, the evaluation of the dependent variables of EE, DP and lack of PA were current measures of burnout. It is therefore recommended that future studies investigating WPB among teachers from a JD-R perspective employ longitudinal research designs (Bernotaite & Malinauskiene, 2017). This will enable researchers to gain a more comprehensive perspective on the causality of the antecedent-bullying relationship, specifically in relation to the Work Environment Hypothesis and the bullying-outcome of burnout.

**4.7.2.2. Self-Report Surveys.** The collection of self-report survey data raises the possibility of reporting bias (Bernotaite & Malinauskiene, 2017). WPB is an especially sensitive phenomenon and as a result of social desirability bias, participants may not have responded accurately. This is a common method bias that accompanies self-report measures (Burns & Burns, 2008; Tredoux & Smith, 2006), and the prevalence of WPB may

have exceeded what was reflected in the present research study. It may be that WPB victims were reluctant to acknowledge that they had been subjected to the negative social acts associated with WPB. This is a pertinent issue among minority groups such as people of colour, women and youth (Ariza-Montes et al., 2016). Further to this, this research study only represents the victims' perspective of WPB and not that of the alleged perpetrators. To overcome such report biases, it has been recommended that future WPB research take a multimethod approach, where both survey and qualitative data are collected, potentially from the victim, perpetrator and even bystander perspectives.

**4.7.2.3. Sample and Sampling Technique.** Non-probability purposive sampling provides limitations in terms of the generalisability of the study's findings to other population groups. This study's sample is not representative of the South African teaching fraternity due to its atypical geographical distribution. Only Gauteng teachers from 14 schools were included in this research. Furthermore the generalisability of this sample is limited as the sample's gender distribution was not collected. This was an error made by the original researcher who did not request gender information in the biographical section of the survey. Therefore, the current study cannot report the gender breakdown of the sample. However, based on the current statistics available, the teaching profession in South Africa is considered to be highly 'feminised' (OCED, 2018; Taole & Wolhunter, 2019). According to the Organisation for Economic Co-operation and Development's (OCED) 2018 Teaching and Learning International Survey (TALIS) , 60% of the South African secondary school teachers surveyed from both public and private schools identified as female (OCED, 2019). In a similar vein, Taole and Wolhunter (2019) state that 66% of primary and secondary South African school teachers identified as female. Therefore, while an accurate figure of the gender distribution of South African teachers could not be identified, it is fair to say that teaching in South Africa is a female dominated profession. These findings may allude to trends within the South African education system. Comparative studies in other provinces that request gender information are necessary to draw more generalised conclusions about

WPB and burnout among South African teachers on a national scale (De Wet & Jacobs, 2014).

Sample bias should also be considered in the context of this study given the low response rate, especially in relation to those who chose to – or not to – participate in research pertaining to the emotional topic of WPB (De Wet & Jacobs, 2014). According to Agervold (2009), victims of WPB are more likely to participate in such a study compared to those unaffected by WPB. This in turn would affect the study's integrity. However, it may also be that these overburdened teachers did not possess the energy nor capacity to partake in this study. This may have further accounted for the low response rate discussed above. It is therefore suggested that future studies investigating WPB among teachers employ a specified time period in which participants can complete the survey. This may increase the survey's response rate as survey completion will not constitute an additional prolonged JD.

### 4.8. Conclusion of the Discussion

This research study yielded significant results which provide insight into the nature and effects of WPB among teachers. Job characteristics were significantly related to WPB, WPB was significantly related to the burnout subcomponents of EE, DP and lack of PA, and JD moderated the WPB-DP relationship. These results offer empirical support for occupational stress research in accordance with the JD-R model. At the same time, they lend to the importance of the creation of national anti-WPB policies as well as context-specific interventions to aid in combatting WPB among teachers. Finally, the limitations of the present research, namely secondary data analysis and research design, were unpacked with recommendations for future research being posited. Such insights offer guidance for future research into WPB and its impact on teachers.

**References**

Agervold, M. 2009. The significance of organizational factors for the incidence of bullying. *Scandinavian Journal of Psychology, 50*. 267-276. doi:10.1111/j.1467-9450.2009.00710.x

Anasori, E., Bayighomog, S. W., & Tanova, C. (2020). Workplace bullying, psychological distress, resilience, mindfulness, and emotional exhaustion. *The Service Industries Journal*, *40*(1-2), 65-89. https://doi.org/10.1080/02642069.2019.1589456

Andersen, J. P., Prause, J., & Silver, R. C. (2011). A step-by-step guide to using secondary data for psychological research. *Social and Personality Psychology Compass*, *5*(1), 56-75. doi:10.1111/j.1751-9004.2010.00329.x

Ariza-Montes, A., Leal-Rodríguez, A. L., & Leal-Millán, A. G. (2016). Workplace bullying among teachers: an analysis from the job demands-resources (JD-R) model perspective. *Journal of occupational and environmental medicine*, *58*(8), 818-827.

Astrauskaitė, M., Perminas, A., & Kern, R. M. (2010). Sickness, colleagues' harassment in teachers' work and emotional exhaustion. *Medicina*, *46*(9), 628.

Babbie, E., & Mouton, J. (2001). *The practice of social research*. London: Oxford University Press.

Baillien, E., Escartin, J., Gross, C., & Zapf, D. (2017) Towards a conceptual and empirical differentiation between workplace bullying and interpersonal conflict. *European Journal of Work and Organizational Psychology*, 26 (6), 870-881, doi:10.1080/1359432X.2017.1385601.

Baillien, E., Neyens, I., De Witte, H., & De Cuyper, N. (2009). Towards a three way model of workplace bullying: a qualitative study. *Journal of Community and Applied Social Psychology*, 19, 1-16. doi:10.1002/casp.977

Baillien, E., Escartín, J., Gross, C., & Zapf, D. (2017). Towards a conceptual and empirical differentiation between workplace bullying and interpersonal conflict. *European Journal of Work and Organizational Psychology*, *26*(6), 870-881. https://doi.org/10.1080/1359432X.2017.1385601

Baillien, E., Rodriguez-Muñoz, A., Van den Broeck, A., & De Witte, H. (2011). Do demands and resources affect target's and perpetrators' reports of workplace bullying? A two-wave cross-lagged study. *Work & Stress*, *25*(2), 128-146. https://doi.org/10.1080/02678373.2011.591600

Bakker, A. B., & Demerouti, E. (2007). The Job Demands-Resources model: state of the art. *Journal of Managerial Psychology*, 22(3), 309-328.

Bakker, A. B., & Demerouti, E. (2014). Job demands-resources theory. In P. Y. Chen & C. L. Cooper (Eds.), *Work and Wellbeing: Wellbeing: A complete reference guide* (p. 37–64*)*. Chichester, England: Wiley- Blackwell. https://doi.org/10.1002/9781118539415.wbwell019.

Bakker, A. B., Demerouti, E., & Euwema, M. C. (2005). Job resources buffer the impact of job demands on burnout. *Journal of Occupational Health Psychology*, *10*(2), 170. https://doi.org/10.1037/1076-8998.10.2.170

Bakker, A., Demerouti, E., & Schaufeli, W. (2003). Dual processes at work in a call centre: An application of the job demands–resources model. *European Journal of Work and Organizational Psychology*, *12*(4), 393-417. https://doi.org/10.1080/13594320344000165

Bakker, A. B., Demerouti, E., & Verbeke, W. (2004). Using the job demands-resources model to predict burnout and performance. *Human Resource Management*, *43*(1), 83-104. doi:10.1002/hrm.20004

Baldry, A. C. (2003). The impact of direct and indirect bullying on mental and physical health of Italian youngsters. *Research Gate*, *30*(5), 343–355. https://doi.org/10.1002/ab.20043

Baldry, A. C., Farrington, D. P., & Sorrentino, A. (2017). School bullying and cyberbullying among boys and girls: Roles and overlap. *Journal of Aggression, Maltreatment & Trauma*, *26*(9), 937-951. https://doi.org/10.1080/10926771.2017.1330793

Barnett, V., & Lewis, T. (1984). Outliers in statistical data. *Outliers in statistical data New York: Wiley*

Baron, R., & Kenny, D. (1986). The moderator-mediator variable distinction in social psychological research: Conceptual, strategic, and statistical considerations. *Journal of Personality and Social Psychology*, 51, 1173-1182.

Bartlett, J. E., & Bartlett, M. E. (2011). Workplace Bullying: An Integrative Literature Review. *Advances in Developing Human Resources*, *13*(1), 69–84. https://doi.org/10.1177/1523422311410651

Batchelor, T. (2019). The Experience of Workplace Bullying Amongst Teachers: A Qualitative Study (Unpublished master's thesis). University of the Witwaterstrand, Johannesburg.

Baughman, H. M., Dearing, S., Giammarco, E., & Vernon, P. A. (2012). Relationships between bullying behaviours and the Dark Triad: A study with adults. *Personality and Individual Differences*, *52*(5), 571-575. https://doi.org/10.1016/j.paid.2011.11.020

Beale, D., & Hoel, H. (2011). Workplace bullying and the employment relationship: exploring questions of prevention, control and context. *Work, Employment and Society*, *25*(1), 5-18. doi:10.1177/0950017010389228

Berkowitz, L. (1989). Frustration-aggression hypothesis: examination and reformulation. *Psychological Bulletin*, *106*(1), 59-173.

Bernotaite, L., & Malinauskiene, V. (2017). Workplace bullying and mental health among teachers in relation to psychosocial job characteristics and burnout. International journal of occupational medicine and Environmental Health, 30(4), 629. doi:10.13075/ijomeh.1896.00943

Bernstein, C. (1992). Supervisor social support as a moderator of stress-strain relationships. (Unpublished Masters Dissertation). University of the Witwatersrand, Johannesburg, South Africa.

Bernstein, C., & Trimm, L. (2016). The impact of workplace bullying on individual wellbeing: The moderating role of coping. *SA Journal of Human Resource Management*, *14*(1), 1-12. https://doi.org/10.4102/sajhrm.v14i1.792

Berthelsen, M., Skogstad, A., Lau, B., & Einarsen, S. (2011). Do they stay or do they go? A longitudinal study of intentions to leave and exclusion from working life among targets of workplace bullying. *International Journal of Manpower*, *32*(2), 178-193. doi:10.1108/01437721111130198

Bloch, G. (2009). The toxic mix. What's wrong with South Africa's schools and how to fix it. Cape Town: Tafelberg. *British Journal of Developmental Psychology*, *27*, 907-933. Retrieved from https://searchworks.stanford.edu/view/8528442

Branch, S., Ramsay, S., & Barker, M. (2013). Workplace bullying, mobbing and general harassment: A review. *International Journal of Management Reviews*, *15*(3), 280-299. doi:10.1111/j.1468-2370.2012.00339.x

Brassard, M. R., & Boehm, A. E. (2011). *Preschool assessment: Principles and practices*. Guilford Press.

Brewer, E.W. (2011). Secondary Data Analysis. In N.J. Salkind. *Encyclopaedia of Measurement and Statistics*. Sage Publications: Thousand Oaks.

Bryman, A. (2012). *Social research methods* (4th ed.). New York, NY: Oxford University Press Inc.

Burns, R. B., & Burns, R. A. (2008). *Business research methods and statistics using SPSS.* London: Sage Publications Ltd.

Campbell, J. P., & Wiernik, B. M. (2015). The modeling and assessment of work performance. *The Annual Review of Organizational Psychology and Organizational Behavior, 2*, 47-74. doi:10.1146/annurev-orgpsych-032414-111427

Cook, R. D., & Weisberg, S. (1982). *Residuals and influence in regression*. New York: Chapman and Hall.

Connor-Smith, J. K., & Flachsbart, C. (2007). Relations between personality and coping: A meta-analysis. *Journal of Personality and Social Psychology, 93*, 1080–1107. https://digitalcommons.georgefox.edu/gscp_fac/103

Coyne, I., Smith-Lee Chong, P., Seigne, E., & Randall, P. (2003). Self and peer nominations of bullying: An analysis of incident rates, individual differences, and perceptions of the working environment. *European Journal of Work and Organizational Psychology*, *12*(3), 209-228. https://doi.org/10.1080/13594320344000101

Crozet, K. (2020). Toxic leadership, psychological capital and individual outcomes (Unpublished Masters Dissertation). University of the Witwatersrand, Johannesburg, South Africa

Cunniff, L., & Mostert, K. (2012). Prevalence of workplace bullying of South African employees. SA Journal of Human Resource Management, 10(1), 1–15.

De Beer, L. T. (2014). Emotional load and social support as indicators of bullying at work. *Journal of Psychology in Africa, 24*(2), 154–158. doi:10.1080/14330237.2014.903068

Dehue, F., Bolman, C., Völlink, T., & Pouwelse, M. (2012). Coping with bullying at work and health related problems. *International Journal of Stress Management*, *19*(3), 175-197. doi:10.1037/a0028969

DeLongis, A., & Holtzman, S. (2005). Coping in context: The role of stress, social support, and personality in coping. *Journal of Personality, 73, 1633–1656.*

Denzler, M., & Förster, J. (2012). A goal model of catharsis. *European Review of Social Psychology, 23*(1), 107-142. https://doi.org/10.1080/10463283.2012.699358

De Vos, J. (2013). Teachers' experiences of workplace bullying and its effects on health: Developing a multilevel intervention programme. Unpublished Ph.D. Potchefstroom: North-West University.

De Vos, J., & Kirsten, G. J. C. (2015). The nature of workplace bullying experienced by teachers and the biopsychosocial health effects. *South African Journal of Education*, *35*(3). doi:10.15700/saje.v35n3a1138

De Wet, C. (2010). The reasons for and the impact of principal-on-teacher bullying on the victim's private and professional lives. *Teaching and Teacher Education*, 26(7), 1450-1459. http://dx.doi.org/10.1016/j.tate.2010.05.005

De Wet, C., & Jacobs, L. (2014). The Perpetrators of Workplace Bullying in Schools: A South African Study. *Mediterranean Journal of Social Sciences*, *5*(16), 567. doi:10.5901/mjss.2014.v5n16p567

Department of Education (2005) Amended National Norms & Standards. Government Gazette No. 29179, 31 August 2006. Pretoria: DoE.

Dollard, J., Miller, N. E., Doob, L. W., Mowrer, O. H., & Sears, R. R. (1939). Frustration and aggression. Yale University Press. https://doi.org/10.1037/10022-000

Einarsen, S. and Hoel, H. (2001), "The negative acts questionnaire: development, validation and revision of a measure of bullying at work", paper presented at the Tenth European Congress on Work and Organizational Psychology, Prague, 16-19 May.

Einarsen, S., & Raknes, B. I. (1997). Harassment in the workplace and the victimization of men. *Violence and Victims*, *12*(3), 247-263. doi:10.1891/0886-6708.12.3.247

Einarsen, S., Hoel, H., & Notelaers, G. (2009). Measuring exposure to bullying and harassment at work: Validity, factor structure and psychometric properties of the Negative Acts Questionnaire-Revised. *Work and Stress*, *23*(1), 21–24.

Einarsen, S., Hoel, H., Zapf, D., & Cooper, C. L. (2011). The concept of bullying and harassment at work: The European tradition. *Bullying and harassment in the workplace: Developments in Theory, Research, and Practice*, *2*, 3-40.

Felson, R. B., & Tedeschi, J. T. (1993). A social interactionist approach to violence: Cross-cultural applications. *Violence and victims*, *8*(3), 295-310. doi:10.1891/0886-6708.8.3.295

Fiabane, E., Giorgi, I., Sguazzin, C., & Argentero, P. (2013). Work engagement and occupational stress in nurses and other healthcare workers: The role of organisational and personal factors. *Journal of Clinical Nursing*, *22*(17-18), 2614-2624. doi:10.1111/jocn.12084

Field, A. P. (2018). Discovering statistics using IBM SPSS statistics. 5th ed. London: Sage Publications.

Ford, M. T., Matthews, R. A., Wooldridge, J. D., Mishra, V., Kakar, U. M., & Strahan, S. R. (2014). How do occupational stressor-strain effects vary with time? A review and meta-analysis of the relevance of time lags in longitudinal studies. *Work & Stress*, *28*(1), 9-30. https://doi.org/10.1080/02678373.2013.877096

Fox, S., & Stallworth, L. E. (2010). The battered apple: An application of stressor-emotion-control/support theory to teachers' experience of violence and bullying. *Human Relations*, *63*(7), 927-954. doi:10.1177/0018726709349518

Freedy J.R. & Hobfoll S.E. (1994) Stress inoculation for reduction of burnout: A conservation of resources approach. *Anxiety, Stress & Coping 6*(4), 311–325.

Garcia, G. P., & Marziale, M. H. (2018). Indicators of burnout in primary health care workers. *Revista Brasileira de Enfermagem, 71*, 2334–2342. doi:10.1590/0034-7167-2017-0530.

Gardner, D., Bentley, T., Catley, B., Cooper-Thomas, H., O'Driscoll, M., & Trenberth, L. (2013). Ethnicity, workplace bullying, social support and psychological strain in Aotearoa/ New Zealand. *New Zealand Journal of Psychology, 42*(2), 84–91.

Giorgi, G., Dubin, D., & Perez, J. F. (2016). Perceived organizational support for enhancing welfare at work: A regression tree model. *Frontiers in Psychology, 7*, 1770. https://doi.org/10.3389/fpsyg.2016.01770

Giorgi, G., Mancuso, S., Fiz Perez, F., Castiello D'Antonio, A., Mucci, N., Cupelli, V., & Arcangeli, G. (2016). Bullying among nurses and its relationship with burnout and organizational climate. *International journal of nursing practice*, *22*(2), 160-168. https://doi.org/10.1111/ijn.12376

Glambek, M., Matthiesen, S. B., Hetland, J., & Einarsen, S. (2014). Workplace bullying as an antecedent to job insecurity and intention to leave: A 6-month prospective study. *Human Resource Management Journal*, *24*(3), 255-268. doi:10.1111/1748-8583.12035

Glasø, L., Matthiesen, S. B., Nielsen, M. B., & Einarsen, S. (2007). Do targets of workplace bullying portray a general victim personality profile? *Scandinavian Journal of Psychology*, *48*(4), 313–319. https://doi.org/10.1111/j.1467-9450.2007.00554.x

Glasø, L., Nielsen, M. B., & Einarsen, S. (2009). Interpersonal problems among perpetrators and targets of workplace bullying. *Journal of Applied Social Psychology*, *39*(6), 1316-1333. https://doi.org/10.1111/j.1559-1816.2009.00483.x

Goodboy, A. K., Martin, M. M., Knight, J. M., & Long, Z. (2017). Creating the boiler room environment: The job demand-control-support model as an explanation for workplace bullying. *Communication Research*, *44*(2), 244-262. https://doi.org/10.1177/0093650215614365

Halbesleben, J. R. (2006). Sources of social support and burnout: a meta-analytic test of the conservation of resources model. *Journal of Applied Psychology*, *91*(5), 1134-1145. https://doi.org/10.1037/0021-9010.91.5.1134

Hallberg, L. R.-M., & Strandmark, M. K. (2006). Health consequences of workplace bullying: Experiences from the perspective of employees in the public service sector. *International Journal of Qualitative Studies on Health and Well-Being*, *1*, 109–119. https://doi.org/10.1080/17482620600555664

Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford Publications.

Hayton, J. C., Allen, D. G., & Scarpello, V. (2004). Factor retention decisions in exploratory factor analysis: A tutorial on parallel analysis. *Organizational Research Methods*, *7*(2), 191-205. doi:10.1177/1094428104263675

Hidzir, N. I., Jaafar, M., Jalali, A., & Dahalan, N. (2017). An exploratory study on the relationship between the personal factors of the perpetrator and workplace bullying. *Jurnal Pengurusan (UKM Journal of Management)*, *49*, 67–76. https://doi.org/10.17576/pengurusan-2017-49-06

Hobfoll, S. E. (1989). Conservation of resources: A new attempt at conceptualizing stress. *American Psychologist*, *44*(3), 513.

Hobfoll, S. E. (2001). The influence of culture, community, and the nested-self in the stress process: Advancing conservation of resources theory. *Applied psychology*, *50*(3), 337-421.

Hobfoll, S. E., Halbesleben, J., Neveu, J. P., & Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual Review of Organizational Psychology and Organizational Behavior*, *5*, 103-128. doi:10.1146/annurev- orgpsych- 032117- 104640

Hoel, H., Rayner, C., & Cooper, C. L. (1999). *Workplace bullying.* In C. L. Cooper & I. T. Robertson (Eds.), *International review of industrial and organizational psychology 1999, 14,* 95–230. John Wiley & Sons Ltd.

Hoel, H., Sheehan, M., Cooper, C. and Einarsen, S. (2011). Organisational effects of workplace bullying. In Einarsen, S., Hoel, H., Zapf, D. and Cooper, C. (eds), *Bullying and Harassment in the Workplace: Developments in Theory, Research, and Practice*, 2nd edn. Boca Raton, FL: CRC Press, pp. 129–148.

Hoaglin, D. C., & Welsch, R. E. (1978). The hat matrix in regression and ANOVA. *The American Statistician*, *32*(1), 17-22.

Huck, S. W. (2009) Statistical Misconceptions. Psychology Press, London

Iglesias, M. E. L, & Becerro de Bengoa Vallejo, R. (2012). Prevalence of bullying at work and its association with self-esteem scores in a Spanish nurse sample. *Contemporary Nurse*, *42*(1), 2-10. http://dx.doi.org/10.5172/conu.2012.42.1.2

Jackson, L., Rothmann, S., & Van De Vijver, F. (2006). A model of work- related well-being for educators in South Africa. *Stress and Health*, 22, 263-274. doi:10.1002/smi.1098

Jackson, L.T.B., & Rothmann, S. (2005). An adapted model of burnout for educators in South Africa. *South African Journal of Education*, 25, 100-108. Retrieved from http://www.ianrothmann.com/pub/educat_v25_n2_a7.pdf

Jacobs, L., & De Wet, C. (2013). South African teachers' exposure to workplace bullying. *TD: The Journal for Transdisciplinary Research in Southern Africa*, *9*(3), 446-464.

Jacobs, L., & De Wet, C. (2015). A quantitative exploration of the effects of workplace bullying on South African educators. *African Safety Promotion: A Journal of Injury and Violence Prevention*, *13*(2), 31-58.

Jóhannsdóttir, H. L., & Ólafsson, R. F. (2004). Coping with bullying in the workplace: The effect of gender, age and type of bullying. *British Journal of Guidance & Counselling*, *32*(3), 319-333.

Johnson, J. V., & Hall, E. M. (1988). Job strain, work place social support, and cardiovascular disease: a cross-sectional study of a random sample of the Swedish working population. *American Journal of Public Health*, *78*(10), 1336-1342.

Jones, F., Bright, J. E. H., Searll, B., & Cooper, L. (1998). Modelling occupational stress and health: The impact of the demand-control model on academic research and on workplace practice. *Stress and Health*, *14(4),* 231. – 236. https://doi.org/10.1002/(SICI)1099-1700(1998100)14:4<231::AID-SMI802>3.0.CO;2-X

Karasek Jr, R. A. (1979). Job demands, job decision latitude, and mental strain: Implications for job redesign. *Administrative Science Quarterly*, *24*(2), 285-308.

Karasek, R. (1985). *Job content questionnaire and user's guide: Department of industrial and systems engineering.* University of Southern Los Angeles, California.

Karasek, R. A., & Theorell, T. (1990). *Healthy work: Stress, productivity, and the reconstruction of working life.* New York: Wiley.

Khan, F., Yusoff, R. M., & Khan, A. (2014). Job demands, burnout and resources in teaching a conceptual review. *World Applied Sciences Journal*, *30*(1), 20-28. doi:10.5829/idosi.wasj.2014.30.01.21029

Kokkinos, C. M. (2007). Job stressors, personality and burnout in primary school teachers. *British Journal of Educational Psychology*, *77*(1), 229-243. https://doi.org/10.1348/000709905X90344

Koon, V. Y., & Pun, P. Y. (2018). The mediating role of emotional exhaustion and job satisfaction on the relationship between job demands and instigated workplace incivility. The Journal of Applied Behavioral Science, 54(2), 187–207. doi:1.o0r.g1/107.171/0770/

Law, R., Dollard, M. F., Tuckey, M. R., & Dormann, C. (2011). Psychosocial safety climate as a lead indicator of workplace bullying and harassment, job resources, psychological health and employee engagement. *Accident Analysis & Prevention*, *43*(5), 1782-1793. https://doi.org/10.1016/j.aap.2011.04.010

Lazarus, R. S., & Folkman, S. (1984). *Stress, appraisal, and coping*. New York : Springer.

Le Roux R, Rycroft A, Orleyn T (2010). *Harassment in the Workplace: Law, Policies and Processes.* 1st ed. Durban: LexisNexis.

Lever, I., Dyball, D., Greenberg, N., & Stevelink, S. A. M. (2019). Health consequences of bullying in the healthcare workplace: A systematic review. *Journal of Advanced Nursing*, *75*(12), 3195–3209. https://doi.org/10.1111/jan.13986

Leymann, H. (1990). Mobbing and psychological terror at workplaces. *Violence and Victims*, *5*(2), 119-126. https://doi.org/10.1080/13594329608414853

Livne, Y., & Goussinsky, R. (2018). Workplace bullying and burnout among healthcare employees: The moderating effect of control-related resources. *Nursing & health sciences*, *20*(1), 89-98. doi:10.1111/nhs.12392

Loera, B., Converso, D., & Viotti, S. (2014). Evaluating the psychometric properties of the Maslach Burnout Inventory-Human Services Survey (MBI-HSS) among Italian nurses: how many factors must a researcher consider?. *PLoS One*, *9*(12). 1-18. doi:10.1371/journal.pone.0114987

Maslach, C., Jackson, S. E., & Schwab, R. (1986). Maslach Burnout Inventory-Educators Survey (MBI-ES). Mountain View, CA: CPP. *Inc. All rights reserved*.

Maslach, C., Jackson, S. E., Leiter, M. P., Schaufeli, W. B., & Schwab, R. L. (1986). *Maslach burnout inventory* (Vol. 21, pp. 3463-3464). Palo Alto, CA: Consulting psychologists press.

Maslach, C., Jackson, S. E., Leiter, M. P., Schaufeli, W. B., & Schwab, R. L. (2016). *Maslach Burnout Inventory [Fourth Edition Manual]*.

Maslach, C., Schaufeli, W. B., & Leiter, M. P. (2001). Job burnout. *Annual Review of Psychology*, *52*(1), 397-422. https://doi.org/10.1146/annurev.psych.52.1.397

Matthiesen, S. B., & Einarsen, S. (2007). Perpetrators and targets of bullying at work: Role stress and individual differences. *Violence and Victims*, *22*(6), 735-753. doi:10.1891/088667007782793174

Mausbach, B. T., Patterson, T. L., von Känel, R., Mills, P. J., Ancoli-Israel, S., Dimsdale, J. E., & Grant, I. (2006). Personal Mastery Attenuates the Effect of Caregiving Stress on Psychiatric Morbidity. *The Journal of Nervous and Mental Disease, 194*(2), 132-134. doi:10.1097/01.nmd.0000198198.21928.e7

Meijman, T. F., Mulder, G., Drenth, P. J. D., Thierry, H., & de Wolff, C. J. (1998). Handbook of work and organizational psychology. *Work Psychology*, *2*, 5-33.

Monsvold, T., Bendixen, M., Hagen, R., & Helvik, A. S. (2011). Exposure to teacher bullying in schools: A study of patients with personality disorders. *Nordic Journal of Psychiatry*, *65*(5), 323-329. doi:10.3109/08039488.2010.546881

Mościcka-Teske, A., Drabek, M., & Pyżalski, J. (2014). Experienced bullying and hostile behavior in the workplace and symptoms of burnout in teachers. *Medycyna Pracy*, *65*(4), 535-542. doi:10.13075/mp.5893.00017

Muniz, N. M., Ariza-Montes, J. A., & Leal-Rodríguez, A. L. (2020). A purposeful approach for implementing preventive measures among European teaching professionals: Bullying, deteriorated organizational factors and the mediating role of job dissatisfaction in poor health perception. *The International Journal of Human Resource Management*, *31*(8), 992-1019. https://doi.org/10.1080/09585192.2017.1396546

Nauman, S., Malik, S. Z., & Jalil, F. (2019). How workplace bullying jeopardizes employees' life satisfaction: The roles of job anxiety and insomnia. *Frontiers in Psychology*, *10*, 2292. doi:10.3389/fpsyg.2019.02292

Ncontsa, V. N., & Shumba, A. (2013). The nature, causes and effects of school violence in South African high schools. *South African Journal of Education*, *33*(3). doi:10.15700/201503070802

Nielsen, M. B., & Einarsen, S. V. (2018). What we know, what we do not know, and what we should and could have known about workplace bullying: An overview of the literature and agenda for future research. *Aggression and Violent Behavior*, *42*, 71-83. https://doi.org/10.1016/j.avb.2018.06.007

Nielsen, M. B., & Knardahl, S. (2015). Is workplace bullying related to the personality traits of victims? A two-year prospective study. *Work & Stress, 29*(2), 128-149. https://doi.org/10.1080/02678373.2015.1032383

Nielsen, M. B., Notelaers, G., & Einarsen, S. (2011). Measuring exposure to workplace bullying. *Bullying and Harassment in the Workplace: Developments in Theory, Research, and Practice*, *2*, 149-174.

Nielsen, M. B., Skogstad, A., Matthiesen, S. B., Glasø, L., Aasland, M. S., Notelaers, G., & Einarsen, S. (2009). Prevalence of workplace bullying in Norway: Comparisons across time and estimation methods. *European Journal of Work and Organizational Psychology*, *18*(1), 81-101.

Notelaers, G., Baillien, E., De Witte, H., Einarsen, S., & Vermunt, J. K. (2013). Testing the strain hypothesis of the Demand Control Model to explain severe bullying at work. *Economic and Industrial Democracy*, *34*(1), 69-87. doi:10.1177/0143831X12438742

OECD (2019). *TALIS 2018 Results: Country Note South Africa.* OECD Publishing: Paris. https://doi.org/10.1787/1d0bc92a-en

O'Farrell, C., Grimard, C. M., Power, J. L. & Lee, R. T. (2018). Targets of Workplace Bullying and Mistreatment: Helpless Victims or Active Provocateurs? In D'Cruz, P., Noronha, E., Baillien, E., Catley, B., Harlos, K., Hogh, A., & Mikkelsen, E. G. (eds), *Pathways of Job-related Negative Behaviour.* Singapore: Springer Nature Pte Ltd.

Omari, M., & Paull, M. (2017). "Robust performance management" or workplace bullying? Not just the 'what' but the 'how.' *Public Money & Management*, *35*(5), 315–316.

Ones, D. S., & Dilchert, S. (2013). *Counterproductive work behaviors: Concepts, measurement, and nomological network.* In K. F. Geisinger, B. A. Bracken, J. F. Carlson, J.-I. C. Hansen, N. R. Kuncel, S. P. Reise, & M. C. Rodriguez (Eds.), *APA handbooks in psychology, 1. Test theory and testing and assessment in industrial and organizational psychology*, 643–659. American Psychological Association. https://doi.org/10.1037/14047-035

Pallant, J. (2010). *SPSS survival manual: A step by step guide to data analysis using SPSS.* Sydney: Allen and Unwin Book Publishers.

Pallesen, S., Nielsen, M. B., Magerøy, N., Andreassen, C. S., & Einarsen, S. (2017). An experimental study on the attribution of personality traits to bullies and targets in a workplace setting. Frontiers in psychology, 8, 1045. https://doi.org/10.3389/fpsyg.2017.01045

Pelfrene, E., Vlerick, P., Kittel, F., Mak, R. P., Kornitzer, M., & Backer, G. D. (2002). Psychosocial work environment and psychological well-being: assessment of the buffering effects in the job demand–control (–support) model in BELSTRESS. *Stress and Health*, *18*(1), 43-56. doi:10.1002/smi.920

Pilch, I., & Turska, E. (2015). Relationships between Machiavellianism, organizational culture, and workplace bullying: Emotional abuse from the target's and the perpetrator's perspective. *Journal of Business Ethics*, *128*(1), 83-93.

Podsiadly, A., & Gamian-Wilk, M. (2017). Personality traits as predictors or outcomes of being exposed to bullying in the workplace. *Personality and Individual Differences*, *115*, 43-49. https://doi.org/10.1016/j.paid.2016.08.001

Rai, A., & Agarwal, U. A. (2016). Workplace bullying: A review and future research directions. *South Asian Journal of Management*, *23*(3), 27.

Raja, U., Javed, Y., and Abbas, M. (2017). A time lagged study of burnout as a mediator in the relationship between workplace bullying and work–family conflict. *International. Journal of Stress Management.* 25, 377–390. doi:10.1037/str0000080

Reknes, I., Einarsen, S. V., Gjerstad, J., & Nielsen, M. B. (2019). Dispositional affect as a moderator in the relationship between role conflict and exposure to bullying behaviors. *Frontiers in psychology*, *10*, 44. https://doi.org/10.3389/fpsyg.2019.00044

Sargent, L. D., & Terry, D. J. (2000). The moderating role of social support in Karasek's job strain model. *Work & Stress*, *14*(3), 245-261. https://doi.org/10.1080/02678370010025568

Schaufeli, W. B., Bakker, A. B., & Van Rhenen, W. (2009). How changes in job demands and resources predict burnout, work engagement, and sickness absenteeism. *The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *30*(7), 893-917. doi:10.1002/job.595

Singh, K., Junnarkar, M., & Kaur, J. (2016). Measures of Positive Psychology: Development and Validation. New Delhi: Springer Nature. doi:10.1007/978-81-322-3631-3

Skogstad, A., Torsheim, T., Einarsen, S., & Hauge, L. J. (2011). Testing the work environment hypothesis of bullying on a group level of analysis: Psychosocial factors as precursors of observed workplace bullying. *Applied Psychology*, *60*(3), 475–495. doi:10.1111/j.1464-0597.2011.00444.x

Sokal, L. J., Trudel, L. G. E., & Babb, J. C. (2020). Supporting Teachers in Times of Change: The Job Demands-Resources Model and Teacher Burnout During the COVID-19 Pandemic. *International Journal of Contemporary Education, 3*(2). https://doi.org/10.11114/ijce.v3i2.4931

Sowetan Live. (2014). Bullying of teachers a serious problem study. *Sowetan Live*. Retrieved from: https://www.sowetanlive.co.za/news/2014-04-09-bullying-of-teachers-a-serious-problem-study/

Strydom, M., Mostert, K., & Rothmann, S. (2006). A psychometric evaluation of the job demands-resources scale in South Africa. *SA Journal of Industrial Psychology*, *32*(4), 76-86. Retrieved from http://www.ianrothmann.com/pub/psyc_v32_n4_a11.pdf

Tabachnick, B. G., & Fidell, L. S. (2007). *Using multivariate statistics* (5th ed.). Upper Saddle River, New Jersey: Pearson Allyn & Bacon Publications.

Taole, M. J., & Wolhuter, C. C. (2019). Gender and the Teaching Profession in South Africa. *Journal of Humanitarian Studies and Education, 1*(1), 106-147.

Tehrani, N. (2013). Introduction to Workplace Bullying in *Workplace Bullying* (pp. 16-33). Routledge. https://doi.org/10.4324/9780203130117-6

Theorell, T., Karasek, R. A., & Eneroth, P. (1990). Job strain variations in relation to plasma testosterone fluctuations in working men-a longitudinal study. *Journal of Internal Medicine*, *227*(1), 31-36.

Tims, M., & Bakker, A. B. (2010). Job crafting: Towards a new model of individual job redesign. *SA Journal of Industrial Psychology*, *36*(2), 1-9.

Tims, M., Bakker, A. B., & Derks, D. (2013). The impact of job crafting on job demands, job resources, and well-being. *Journal of occupational health psychology*, *18*(2), 230.

Tokarev, A., Phillips, A. R., Hughes, D. J., & Irwing, P. (2017). Leader dark traits, workplace bullying, and employee depression: Exploring mediation and the role of the dark core. *Journal of Abnormal Psychology, 126*(7), 911–920. https://doi.org/10.1037/abn0000299

Tredoux, C. & Smith, M. (2006). Evaluating research designs. In M. Terre Blanche, K. Durrheim, & D. Painter. (Eds). *Research in Practice: Applied Methods for the Social Sciences.* University of Cape Town Press: Cape Town.

Trépanier, S. G., Fernet, C., & Austin, S. (2013). Workplace bullying and psychological health at work: The mediating role of satisfaction of needs for autonomy, competence and relatedness. *Work & Stress*, *27*(2), 123-140. https://doi.org/10.1080/02678373.2013.782158

Tuckey, M. R., & Neall, A. M. (2014). Workplace bullying erodes job and personal resources: Between-and within-person perspectives. *Journal of occupational health psychology*, *19*(4), 413.

Tukey, J.W. (1977). Exploratory data analysis. Reading, MA: Addison-Wesley.

UNICEF (2018). *Sub-National Budget Brief on School Funding South Africa*. https://www.unicef.org/southafrica/media/631/file/ZAF-budget-brief-sub-national-2018-19.pdf

van den Brande, W., Baillien, E., De Witte, H., Vander Elst, T., & Godderis, L. (2016). The role of work stressors, coping strategies and coping resources in the process of workplace bullying: A systematic review and development of a comprehensive model. *Aggression and Violent Behavior*, *29*, 61–71. https://doi.org/10.1016/j.avb.2016.06.004

van den Broeck, A. D., Baillien, E., & Witte, H. D. (2011). Workplace bullying: A perspective from the Job Demands-Resources model. *SA Journal of Industrial Psychology*, *37*(2), 40-51. doi:10.4102/sajip.v37i2.879

Van Tonder, D., & Fourie, E. (2015). The effect of job demands and a lack of job resources on South African educators' mental and physical resources. *Journal of Social Science,* 42(1,2): 65-77.

Verhoeven, C., Kraaij, V., Joekes, K., & Maes, S. (2003). Job conditions and wellness/health outcomes in Dutch secondary school teachers. *Psychology and health*, *18*(4), 473-487. https://doi.org/10.1080/0887044031000147201

Walsh, J. L., Persky, L. R., & Pinnock, K. (2019). The effect of high performing bullying behavior on organizational performance: a bullying management dilemma. *Global Journal of Business Research*, *13*(1), 71-81.

Windle, P.E. (2010). Secondary data analysis: Is it useful and valid? *Journal of PeriAnethesia Nursing, 25*, (5), 322-324. doi:10.1016/j.jopan.2010.07.005

Worley, J. A., Vassar, M., Wheeler, D. L., & Barnes, L. L. B. (2008). Factor Structure of Scores From the Maslach Burnout Inventory: A Review and Meta-Analysis of 45 Exploratory and Confirmatory Factor-Analytic Studies. *Educational and Psychological, 68*(5). 797–823. doi:10.1177/0013164408315268

Wright, S. (2020). Hierarchies and bullying: An examination into the drivers for workplace harassment within organisation. *Transnational Corporations Review*, *12*(2), 162-172. https://doi.org/10.1080/19186444.2020.1768790

Wright, T. A., & Hobfoll, S. E. (2004). Commitment, psychological well-being and job performance: An examination of conservation of resources (COR) theory and job burnout. *Journal of Business & Management*, *9*(4).

Zapf, D. (1999). Organisational, work group related and personal causes of mobbing/bullying at work. *International Journal of Manpower, 20*. 70-85.

Zapf, D., & Einarsen, S. (2005). Mobbing at Work: Escalated Conflicts in Organizations. In S. Fox & P. E. Spector (Eds.), *Counterproductive work behavior: Investigations of actors and targets* (p. 237–270). American Psychological Association. doi:10.1037/10893-010

## Appendix A: Hard Copy Survey

### Demographic Questionnaire

What is your race? (Optional)

| | | | | |
|---|---|---|---|---|
| Black | Indian | Coloured | White | Other |

What is your marital status?

| | | | | | |
|---|---|---|---|---|---|
| Married | Single | Divorced | Widowed | Separated | Co-habiting |

What is your home language? (Please state, English, Afrikaans, African Language e.g. Zulu, Sotho etc. or other.

_____

How many children do you have?

---

What is your highest level of education? (For example: Post-Matric Diploma/s, University Degree/s – Please specify.

---

What is your Age?

---

What quintile is your School categorised as?

---

Below follows a number of questions and statements relating to you and your job. Please answer each statement as honestly as possible. This questionnaire is totally anonymous and confidential. In no way will you be judged by your answers and in no way will anyone have access to your answers or be aware which answers belong to you specifically.

**Job Demands and Resources Scale**

The following questions assess your experience of work demands and resources. For each question please circle the extent to which you disagree or agree with the statement in relation to your work experience If you are strongly disagree tick 1; if you slightly agree tick 2; if you are neutral 3; if you slightly agree tick 4 and if you strongly agree tick 5.

**Never = 1**

**Sometimes =2**

**Often = 3**

**Always =4**

PLEASE MAKE SURE THAT YOU ANSWER ALL 45 QUESTIONS BELOW.

| | | 1 | 2 | 3 | 4 |
|---|---|---|---|---|---|
| **1** | Do you have too much work to do? | | | | |
| **2** | Do you work under time pressure? | | | | |
| **3** | Do you have to be attentive to many things at the same time? | | | | |
| **4** | Do you have to pay continuous attention to your work? | | | | |
| **5** | Do you have to remember many things in your work? | | | | |
| **6** | Are you confronted in your work with things that affect you personally? | | | | |
| **7** | Do you have contact with difficult people in your work? | | | | |
| **8** | Does your work put you in emotionally upsetting situations? | | | | |
| **9** | Does your work make sufficient demands on all your skills and capacities? | | | | |
| **10** | Do you have enough variety in your work? | | | | |
| **11** | Does your job offer you opportunities for personal growth and development? | | | | |

| | | | | | |
|---|---|---|---|---|---|
| **12** | Does your work give you the feeling that you can achieve something? | | | | |
| **13** | Does your job offer you the possibility of independent thought and action? | | | | |
| **14** | Do you have freedom in carrying out your work activities? | | | | |
| **15** | Do you have influence in the planning of your work activities? | | | | |
| **16** | Can you participate in the decision about when a piece of work must be completed? | | | | |
| **17** | Can you count on your colleagues when you come across difficulties in your work? | | | | |
| **18** | If necessary, can you ask your colleagues for help? | | | | |
| **19** | Do you get on well with your colleagues? | | | | |
| **20** | Can you count on your supervisor when you come across difficulties in your work? | | | | |
| **21** | Do you get on well with your supervisor? | | | | |
| **22** | In your work, do you feel appreciated by your supervisor? | | | | |
| **23** | Do you know exactly what other people expect of you in your work? | | | | |
| **24** | Do you know exactly for what you are responsible? | | | | |
| **25** | Do you know exactly what your direct supervisor thinks of your performance? | | | | |
| **26** | Do you receive sufficient information on the purpose of your work? | | | | |
| **27** | Does your direct supervisor inform you about how well you are doing your work? | | | | |
| **28** | Are you kept adequately up-to-date about important issues? | | | | |
| **29** | Is the decision-making process of your university clear to you? | | | | |
| **30** | Is it clear to you whom you should address within the school for specific problems? | | | | |
| **31** | Can you discuss work problems with your direct supervisor? | | | | |

| | | | | | |
|---|---|---|---|---|---|
| **32** | Can you participate in decisions about the nature of your work? | | | | |
| **33** | Do you have a direct influence on your university's decisions? | | | | |
| **34** | Do you have contact with colleagues as part of your work? | | | | |
| **35** | Can you have a chat with colleagues during working hours? | | | | |
| **36** | Do you find that you have enough contact with colleagues during working hours? | | | | |
| **37** | Do you need to be more secure that you will still be working in one year's time? | | | | |
| **38** | Do you need to be more secure that you will keep your current job in the next year? | | | | |
| **39** | Do you need to be more secure that next year you will keep the same function level as currently? | | | | |
| **40** | Do you think that your school pays good salaries? | | | | |
| **41** | Can you live comfortably on your pay? | | | | |
| **42** | Do you think you are paid enough for the work that you do? | | | | |
| **43** | Does your job offer you the 0possibility to progress financially? | | | | |
| **44** | Does your university give you opportunities to follow training courses? | | | | |
| **45** | Does your job give you the opportunity to be promoted? | | | | |

**Negative Acts Questionnaire- Revised (NAQ-R)**

Please circle the number for each question that comes closest to reflecting how often the you experience the following. Please make sure you answer all questions:

| | | Never | Rarely | Sometimes | Often | Daily |
|---|---|---|---|---|---|---|
| 1 | Someone withholding information which affects your performance. | 1 | 2 | 3 | 4 | 5 |
| 2 | Being ordered to do work below your level of competence. | 1 | 2 | 3 | 4 | 5 |
| 3 | Having your opinions ignored. | 1 | 2 | 3 | 4 | 5 |
| 4 | Being given tasks with unreasonable deadlines. | 1 | 2 | 3 | 4 | 5 |
| 5 | Excessive monitoring of your work. | 1 | 2 | 3 | 4 | 5 |
| 6 | Pressure not to claim something to which by right you are entitled (e.g. sick leave, holiday entitlement, travel expenses). | 1 | 2 | 3 | 4 | 5 |
| 7 | Being exposed to an unmanageable workload. | 1 | 2 | 3 | 4 | 5 |
| 8 | Being humiliated or ridiculed in connection with your work. | 1 | 2 | 3 | 4 | 5 |
| 9 | Having key areas of responsibility removed or replaced with more trivial or unpleasant tasks. | 1 | 2 | 3 | 4 | 5 |
| 10 | Spreading of gossip and rumours about you. | 1 | 2 | 3 | 4 | 5 |
| 11 | Being ignored or excluded. | 1 | 2 | 3 | 4 | 5 |
| 12 | Having insulting or offensive remarks made about your person, attitudes or your private life. | 1 | 2 | 3 | 4 | 5 |
| 13 | Hints or signals from others that you should quit your job. | 1 | 2 | 3 | 4 | 5 |
| 14 | Repeated reminders of your errors or mistakes. | 1 | 2 | 3 | 4 | 5 |
| 15 | Being ignored or facing a hostile reaction when you approach. | 1 | 2 | 3 | 4 | 5 |
| 16 | Persistent criticism of your errors or mistakes. | 1 | 2 | 3 | 4 | 5 |
| 17 | Practical jokes carried out by people you don't get along with. | 1 | 2 | 3 | 4 | 5 |
| 18 | Having allegations made against you. | 1 | 2 | 3 | 4 | 5 |
| 19 | Being the subject of excessive teasing and sarcasm. | 1 | 2 | 3 | 4 | 5 |
| 20 | Being shouted at or being the target of spontaneous anger. | 1 | 2 | 3 | 4 | 5 |
| 21. | Threats of violence or physical abuse or actual abuse. | 1 | 2 | 3 | 4 | 5 |

**Burnout Survey**

Please answer all questions in sections a, b, and c by circling the anwer the most matches your current feelings:

| Questions | Never | A few times per year | Once a month | A few times per month | Once a week | A few times per week | Every day |
|---|---|---|---|---|---|---|---|
| **SECTION A** | **0** | **1** | **2** | **3** | **4** | **5** | **6** |
| I feel emotionally drained by my work. | | | | | | | |
| Working with people all day long requires a great deal of effort. | | | | | | | |
| I feel like my work is breaking me down. | | | | | | | |
| I feel frustrated by my work. | | | | | | | |
| I feel I work too hard at my job. | | | | | | | |
| It stresses me too much to work in direct contact with people. | | | | | | | |
| I feel like I'm at the end of my rope. | | | | | | | |

| Questions | Never | A few times per year | Once a month | A few times per month | Once a week | A few times per week | Every day |
|---|---|---|---|---|---|---|---|
| **SECTION B** | **0** | **1** | **2** | **3** | **4** | **5** | **6** |
| I feel I look after certain learners impersonally, as if they are objects. | | | | | | | |
| I feel tired when I get up in the morning and have to face another day at work. | | | | | | | |
| I have the impression that my learners make me responsible for some of their problems. | | | | | | | |
| I am at the end of my patience at the end of my work day. | | | | | | | |
| I really don't care about what happens to some of my learners. | | | | | | | |
| I have become more insensitive to people since I've been working | | | | | | | |
| I'm afraid that this job is making me uncaring. | | | | | | | |

| Questions | Never | A few times per year | Once a month | A few times per month | Once a week | A few times per week | Every day |
|---|---|---|---|---|---|---|---|
| **SECTION C** | **0** | **1** | **2** | **3** | **4** | **5** | **6** |
| I accomplish many worthwhile things in this job. | | | | | | | |
| I feel full of energy. | | | | | | | |
| I am easily able to understand what my learners feel. | | | | | | | |
| I look after my learners problems very effectively. | | | | | | | |
| In my work, I handle emotional problems very calmly. | | | | | | | |
| Through my work, I feel that I have a positive influence on people. | | | | | | | |
| I am easily able to create a relaxed atmosphere with my learners | | | | | | | |
| I feel refreshed when I have been close to my learners at work. | | | | | | | |

**THANK YOU FOR COMPLETING THE SURVEY**

## Appendix B: Permission for Secondary Data Analysis

PSYCHOLOGY
THE SCHOOL OF HUMAN AND COMMUNITY DEVELOPMENT (SHCD)

Private Bag 3, Wits, 2050 • Tel: 011 717 4541 • Fax: 011 717 4559 • E-mail: psych.SHCD@wits.ac.za

**LETTER OF PERMISSION TO USE SECONDARY DATA**

May 15th 2020

To whom it may concern

This letter serves to grant permission to Ms Daniella Solomon to utilize the secondary data collected by Ms Toni Batchelor and Dr. Colleen Bernstein in 2018.

The secondary data consists of 186 surveys collected by the above researchers in a project entitled: *The Experience of Workplace Bullying Amongst Teachers in Gauteng: A Job Demands Resources Perspective.*

This project was approved by the University of Witwatersrand HREC in 2018 and was not used in Ms Batchelor's research study entitled:
*The Experiences of Workplace Bullying Amongst Teachers; A Qualitative Study*

The Ethics Clearance number provided by the HREC is as follows:
HREC number: H18/06/07

Yours sincerely

Ms Toni Bachelor



Dr. Colleen Bernstein
Senior Lecturer, Masters' Program Coordinator and Registered Industrial Psychologist (PS0084972).



## Appendix C: Participant Information Sheet for Principals

Access letter to school – PIS for the Principal of the School

**SCHOOL OF HUMAN & COMMUNITY DEVELOPMENT**
**UNIVERSITY OF THE WITWATERSRAND**
Private Bag 3, WITS, 2050
Tel: (011) 717 4500 Fax: (011) 717 4559

Dear Sir / Madam

My name is Toni Batchelor, and I am presently completing my Master's degree in Industrial/Organisational Psychology at the University of the Witwatersrand. As part of the requirements for my degree, my area of research is designed to investigate environmental demands and resources and how these factors can foster or reduce workplace bullying amongst educators. The study will further examine whether demands can lead to an increase in educator burnout and a reduction in work engagement and whether resources can reduce burnout and enhance educators work engagement. To carry out this research project, I would therefore like to invite the educators at your school to participate in this study, which will involve educators completing a hard copy *or* online survey that should only take approximately 30 minutes to complete. I would also like to place a sealed box in your school in a private place where teachers can return their hard copies if they choose this option. If they choose the online option, they can simply fill in the survey online and submit it on line. Hard copies will be printed and provided to all teachers in the school. The online link will be provided to teachers choosing this option in the PIS that they will receive attached to the hard copy.

Process of survey distribution

Hard copies of the survey will be provided to be handed out to teachers. The survey will have an information sheet inviting the teachers to participate. The information sheet will also give them a secure encrypted online link that they can use if they prefer the online option. If they use a hard copy, they can seal it in an envelope attached after completion. Participating in the completion of the survey is voluntary and educators will not be at an advantage or disadvantage for choosing to complete or not complete the online survey. Anonymity will be assured, as there will be no identifying characteristics that will lead to the exposure of any educator's identity or the identity of the school. The only information that will be required will be that identifying the schools quintile.

While questions will be asked about educators personal circumstances, no identifying information, such as their name, name of school or I.D. numbers, will be asked for, and as such, educators will remain anonymous. Moreover, educators who volunteer to be part of the study will be requested to return all completed questionnaires either into a sealed box which will be regularly cleared by the researcher and which only the researcher has access to or through a secure and encrypted website.
If the online method is used, although IP addresses can serve as an identifier of participants, these will be deleted immediately once all the data is downloaded. This will ensure that educator's information remains completely anonymous. No other party, other than the researcher and supervisor will have access to the completed questionnaires and thus confidentiality will be ensured. The data will also be protected, as it will be stored on a password-protected computer that only the supervisor and researcher will have access to. Participants can withdraw from filling out the questionnaire at any point in time however, once they complete and submit the survey informed consent will be deemed to have been given. The school will receive a summary of the results obtained from the study upon request. This summary will be in the form of group trends, which will make it impossible to identify any particular educator or school. Should any educator wish to receive feedback on the study a summary of results will also be made available upon request.

It must be emphasised that the wellbeing of all educators who volunteer to partake in the study is of utmost importance. Therefore, while no harm is expected to be experienced by any educator that volunteers to complete the survey, should any educator feel that they may need counselling after participating in the study, counselling will be arranged free of charge. This counselling can be arranged by contacting Paballo Lepota at the Emthonjeni Centre at the University of the Witwatersrand. Contact details of the researcher will be provided to those wishing to obtain any further information. The contact number of Paballo Lepota the centre is 011 7174513.

Further, it must be emphasised that responses to the hard copy and online survey will not be used for any purposes, other than academic research, future data analyses, journals and conference proceedings. Allowing educators at your school to be invited to participate in this study would be greatly appreciated. This research will contribute to a larger body of knowledge on demands, resources, workplace bullying, burnout and work engagement within the schooling context. Additionally, the findings of this research study could assist in the long term by encouraging government institutions to improve environmental conditions within schools and thereby protect educators from environments in which workplace bullying and its negative

outcomes are induced. The research study is an independent study, which will be conducted under the supervision of an Industrial Psychologist at Wits University.

Please note that data collection will only commence once two conditions are met. Firstly, data collection will only commence once the University of the Witwatersrand Ethics Committee provides ethics clearance for the study and secondly once the Gauteng Department of Education allows us to access your school. Note that the GDE will only allow us access if you as the principal are willing to agree to the project. Your response to this letter is therefore to be used as an indication to the GDE of your willingness to allow us access to the educators at your respective school. It is also important to note that while the GDE grants us permission we will not be giving the GDE any information on findings from any single school. A number of schools will be involved in the project so only general overall findings will be presented in the final report.
Please do formally respond to this letter (on a school letterhead) indicating your willingness or not, to grant us access into your school. Please contact me or my supervisor should you have any questions.

Kind Regards
Masters Student: Toni Batchelor
Supervisor: Dr. Colleen Bernstein
Email: 750771@students.wits.ac.za
Email: Colleen.Bernstein@wits.ac.za

Paballo Lepota 011 7174513
HREC number : H18/06/07

**Appendix D: Gauteng Department of Education Research Permission Letter**

GAUTENG PROVINCE
Department: Education
REPUBLIC OF SOUTH AFRICA

8/4/4/1/2

## GDE RESEARCH APPROVAL LETTER

| | |
|---|---|
| Date: | 09 May 2018 |
| Validity of Research Approval: | 05 February 2018 – 28 September 2018<br>2018/57 |
| Name of Researcher: | Batchelor T.P.B |
| Address of Researcher: | 32 Silver Street |
| | Eldorado Park |
| | 1813 |
| Telephone Number: | 082 302 2940 |
| Email address: | 750771@students.wits.ac.za |
| Research Topic: | Workplace Bullying Amongst Teachers: A Job Demands and Resources model Perspective. |
| Type of qualification | Master's degree in Organisational Psychology |
| Number and type of schools: | Eight Primary Schools, Five Secondary Schools, Three LSEN Schools |
| District/s/HO | Johannesburg Central, Johannesburg East, Johannesburg North, Johannesburg South, Johannesburg West. |

***Re: Approval in Respect of Request to Conduct Research***

This letter serves to indicate that approval is hereby granted to the above-mentioned researcher to proceed with research in respect of the study indicated above. The onus rests with the researcher to negotiate appropriate and relevant time schedules with the school/s and/or offices involved to conduct the research. A separate copy of this letter must be presented to both the School (both Principal and SGB) and the District/Head Office Senior Manager confirming that permission has been granted for the research to be conducted.

**The following conditions apply to GDE research. The researcher may proceed with the**

10/05/2018 1



**Office of the Director: Education Research and Knowledge Management**
7th Floor, 17 Simmonds Street, Johannesburg, 2001
Tel: (011) 355 0488
Email: Faith.Tshabalala@gauteng.gov.za
Website: www.education.gpg.gov.za

1. *The District/Head Office Senior Manager/s concerned must be presented with a copy of this letter that would indicate that the said researcher/s has/have been granted permission from the Gauteng Department of Education to conduct the research study.*
2. *The District/Head Office Senior Manager/s must be approached separately, and in writing, for permission to involve District/Head Office Officials in the project.*
3. *A copy of this letter must be forwarded to the school principal and the chairperson of the School Governing Body (SGB) that would indicate that the researcher/s have been granted permission from the Gauteng Department of Education to conduct the research study.*
4. *A letter / document that outline the purpose of the research and the anticipated outcomes of such research must be made available to the principals, SGBs and District/Head Office Senior Managers of the schools and districts/offices concerned, respectively.*
5. *The Researcher will make every effort obtain the goodwill and co-operation of all the GDE officials, principals, and chairpersons of the SGBs, teachers and learners involved. Persons who offer their co-operation will not receive additional remuneration from the Department while those that opt not to participate will not be penalised in any way.*
6. *Research may only be conducted after school hours so that the normal school programme is not interrupted. The Principal (if at a school) and/or Director (if at a district/head office) must be consulted about an appropriate time when the researcher/s may carry out their research at the sites that they manage.*
7. *Research may only commence from the second week of February and must be concluded before the beginning of the last quarter of the academic year. If incomplete, an amended Research Approval letter may be requested to conduct research in the following year.*
8. *Items 6 and 7 will not apply to any research effort being undertaken on behalf of the GDE. Such research will have been commissioned and be paid for by the Gauteng Department of Education.*
9. *It is the researcher's responsibility to obtain written parental consent of all learners that are expected to participate in the study.*
10. *The researcher is responsible for supplying and utilising his/her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institutions and/or the offices visited for supplying such resources.*
11. *The names of the GDE officials, schools, principals, parents, teachers and learners that participate in the study may not appear in the research report without the written consent of each of these individuals and/or organisations.*
12. *On completion of the study the researcher/s must supply the Director: Knowledge Management & Research with one Hard Cover bound and an electronic copy of the research.*
13. *The researcher may be expected to provide short presentations on the purpose, findings and recommendations of his/her research to both GDE officials and the schools concerned.*
14. *Should the researcher have been involved with research at a school and/or a district/head office level, the Director concerned must also be supplied with a brief summary of the purpose, findings and recommendations of the research study.*

The Gauteng Department of Education wishes you well in this important undertaking and looks forward to examining the findings of your research study.

Kind regards

.....

Mr Gumani Mukatuni
Acting CES: Education Research and Knowledge Management

DATE: 10/05/2018





**Office of the Director: Education Research and Knowledge Management**
7th Floor, 17 Simmonds Street, Johannesburg, 2001
Tel: (011) 355 0488
Email: Faith.Tshabalala@gauteng.gov.za
Website: www.education.gpg.gov.za

## Appendix E: Teacher Participant Information Sheet

**SCHOOL OF HUMAN & COMMUNITY DEVELOPMENT**
**UNIVERSITY OF THE WITWATERSRAND**
Private Bag 3, WITS, 2050
Tel: (011) 717 4500 Fax: (011) 717 4559

Dear Sir / Madam

**Invitation for your participation in a research project**

My name is Dr Colleen Bernstein, from the Department of Psychology at the University of the Witwatersrand. I am presently conducting research with Ms Toni Batchelor on bullying within schools between school teachers and school staff. This area of research is designed to investigate environmental demands and resources and how these factors can foster or reduce workplace bullying amongst teachers. The study will further examine whether demands can lead to an increase in teacher burnout and a reduction in work engagement and whether resources can reduce burnout and enhance teacher work engagement. I will be assisted in the data collection by my research assistant Ms Toni Batchelor who is currently completing her Masters degree in Organisational Psychology. To carry out this research project, I would therefore like to invite you to participate in this study. Participation will involve the completion of a questionnaire, which should take approximately 30 minutes to complete. If you choose to participate in the study, please complete and submit the survey within one month of receiving it. You have two options for completion 1) to complete the hard copy and seal it in the envelope provided and place it in the sealed box placed in your school. Please note that no-one other than the researcher will have access to this box. 2) you may complete the survey online. The site is secure and encrypted an no one has access to this site other than the researcher. The site is as follows: **Site to be put in**

Please note that participating in the completion of the survey is voluntary and you will not be at an advantage or disadvantage for choosing to complete or not complete the survey. Anonymity will be assured, as there will be no identifying characteristics that will lead to the exposure of your identity or the identity of the school you belong too**. While questions will be asked about your personal circumstances, no identifying information, such as your name, name of school or I.D. number, will be asked for, and as such, you will remain anonymous.** Moreover, you will be requested to return all completed questionnaires by placing them in a sealed secure box or through a secure and encrypted online website. Although IP addresses can serve as an identifier for the online survey, they will be deleted

immediately once all the data is downloaded. This will ensure that your information remains completely anonymous. **No other party, other than the researcher and supervisor will have access to the completed questionnaires and thus confidentiality will be ensured.** The data will also be protected, as it will be stored on a password-protected computer that only the supervisor and researcher will have access too.

**It must also be noted that you can withdraw from filling out the questionnaire at any point in time however, once you complete and submit the survey informed consent will be deemed to have been given.** Should you wish to receive feedback on the study a summary of results will be made available upon request. The school will also receive a summary of the results obtained from the study upon request. This summary will be in the form of group trends, which will make it impossible to identify any particular teacher.

It must be emphasised that your wellbeing is of utmost importance. Therefore, while no harm is expected to be experienced by any teacher who volunteers to complete the survey, should you feel that you need counselling after participating in the study, counselling will be arranged for you at your convenience and free of charge. This counselling will be provided through the Emthonjeni Centre at the University of the Witwatersrand. Please contact Paballo Lepota should you require to arrange a debriefing and counselling session. In addition, if you have any other queries relating to the research in general you are free to contact us at the details provided below. The contact number of Paballo Lepota is 011 7174513 if you feel the need for counselling. The researchers contact details are listed below.

Please note that responses obtained from your survey will not be used for any purposes, other than academic research, future data analyses, journals and conference proceedings. Volunteering to participate in this study would be greatly appreciated as it will contribute to a larger body of knowledge on demands, resources, workplace bullying, burnout and work engagement within the schooling context. Additionally, the findings of this research study could assist in the long term by encouraging government institutions to improve environmental conditions within schools and thereby protect teachers like yourself, from workplace bullying and its negative outcomes. The research study is an independent study, which will be conducted under the supervision of an Industrial Psychologist at Wits University

Kind Regards

Dr Colleen Bernstein:
Email Colleen.Bernstein@wits.ac.za
Cell Phone: 0827709200 / 011 7174538
Paballo Lepota 011 7174513

Toni Batchelor
75077l @students.wits.ac.za
Cell Phone: 0823022940
HREC number : H18/06/07

# Appendix F: HREC Ethics Clearance Certificate

UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG

**SCHOOL OF HUMAN AND COMMUNITY DEVELOPMENT ETHICS COMMITTEE**
**CONSTITUTED UNDER THE UNIVERSITY HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)**

| | |
|---|---|
| **CLEARANCE CERTIFICATE:** | **PROTOCOL NUMBER: MAORG/20/05W** |
| **PROJECT TITLE:** | Workplace Bullying Among Teachers: A Job-Demands Resource Perspective |
| **INVESTIGATOR** | Solomon Daniella (2386631) |
| **SCHOOL/DEPARTMENT OF INVESTIGATOR** | SHCD/Psychology |
| **DATE CONSIDERED** | 05 June 2020 |
| **DECISION OF THE COMMITTEE** | Approved unconditionally |
| **RISK LEVEL** | No Risk |
| **EXPIRY DATE** | 31 December 2022 |

**ISSUE DATE OF CERTIFICATE** 21 June 2020 **CHAIRPERSON** _____
(Dr Colleen Bernstein)

cc: Dr Colleen Bernstein (Supervisor)

---

**DECLARATION OF INVESTIGATOR**

To be completed in duplicate and **ONE COPY** returned to the Chairperson of the School/Department ethics committee.

I fully understand the conditions under which I am are authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee.

_____ 25 / June / 2020
**Signature** **Date**

**PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES**

## Appendix G: Primary Data Collection HREC Ethics Approval

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/49 Batchelor

| | |
|---|---|
| CLEARANCE CERTIFICATE | PROTOCOL NUMBER: H18/06/07 |
| PROJECT TITLE | Workplace bullying amongst teachers - A job demands resource model perspective |
| INVESTIGATOR(S) | Miss T Batchelor |
| SCHOOL/DEPARTMENT | Human and Community Development/ |
| DATE CONSIDERED | 22 June 2018 |
| DECISION OF THE COMMITTEE | Approved |
| EXPIRY DATE | 01 July 2021 |
| DATE 02 July 2018 | CHAIRPERSON (Professor J Knight) |

cc: Supervisor : Dr C Bernstein

DECLARATION OF INVESTIGATOR(S)

To be completed in duplicate and **ONE COPY** returned to the Secretary at Room 10004, 10th Floor, Senate House, University. Unreported changes to the application may invalidate the clearance given by the HREC (Non-Medical)

I/We fully understand the conditions under which I am/we are authorized to carry out the abovementioned research and I/we guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee. I agree to completion of a yearly progress report.

Batchelor
Signature

12 / 07 / 18
Date

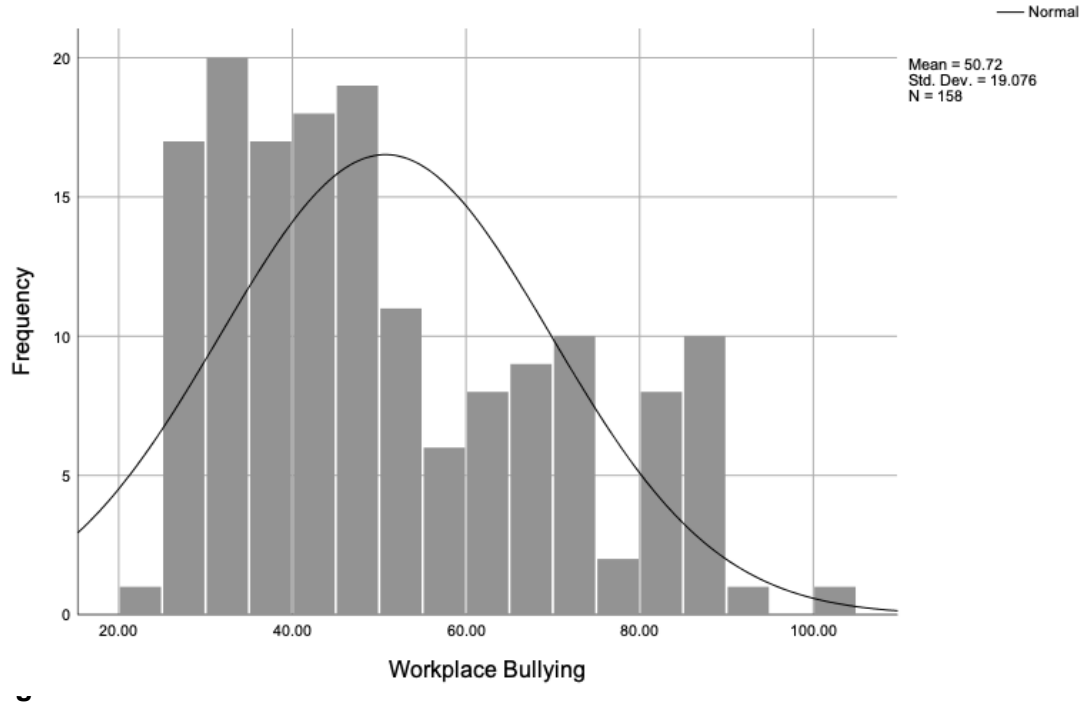
PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

## Appendix H: Assumptions Testing

### Normality Assumptions

**Figure 5.1.**

*Histogram Depicting the Distribution of Workplace Bullying*




*Histogram Depicting the Distribution of Emotional Exhaustion*

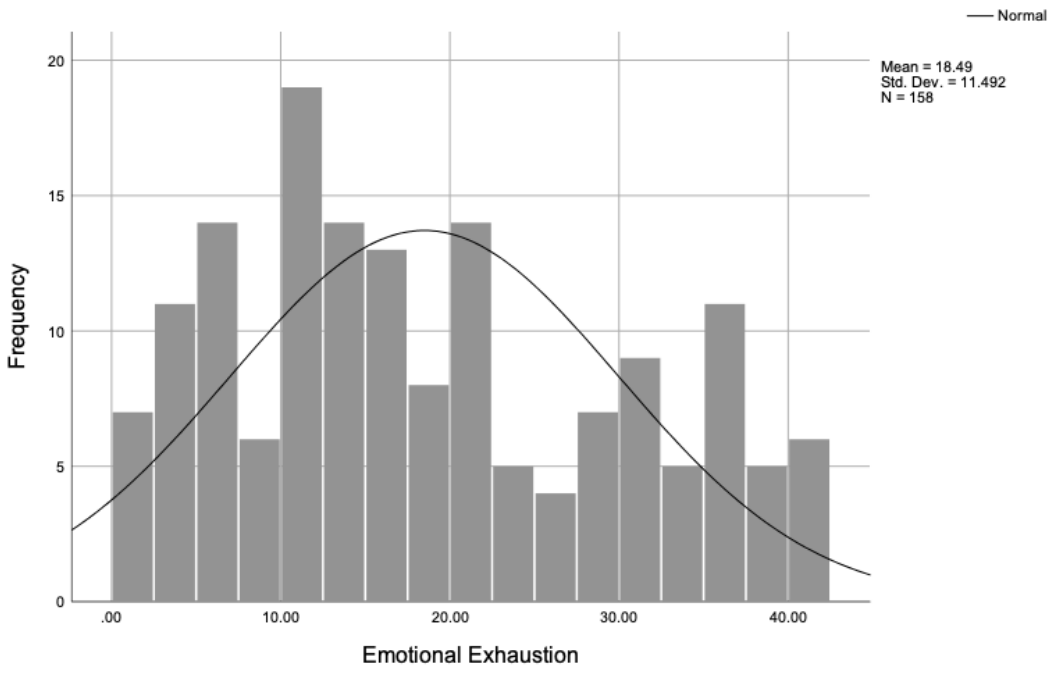


**Figure 5.3.**

*Histogram Depicting the Distribution of Depersonalisation*

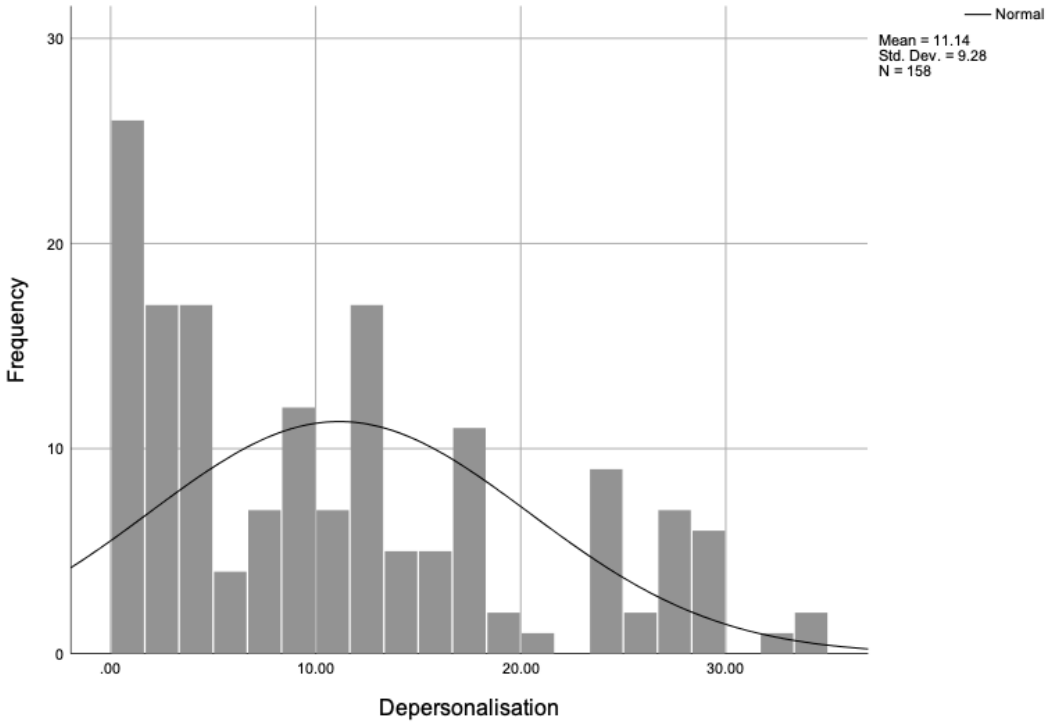



**Figure 5.4.**

*Histogram Depicting the Distribution of Personal Accomplishment*

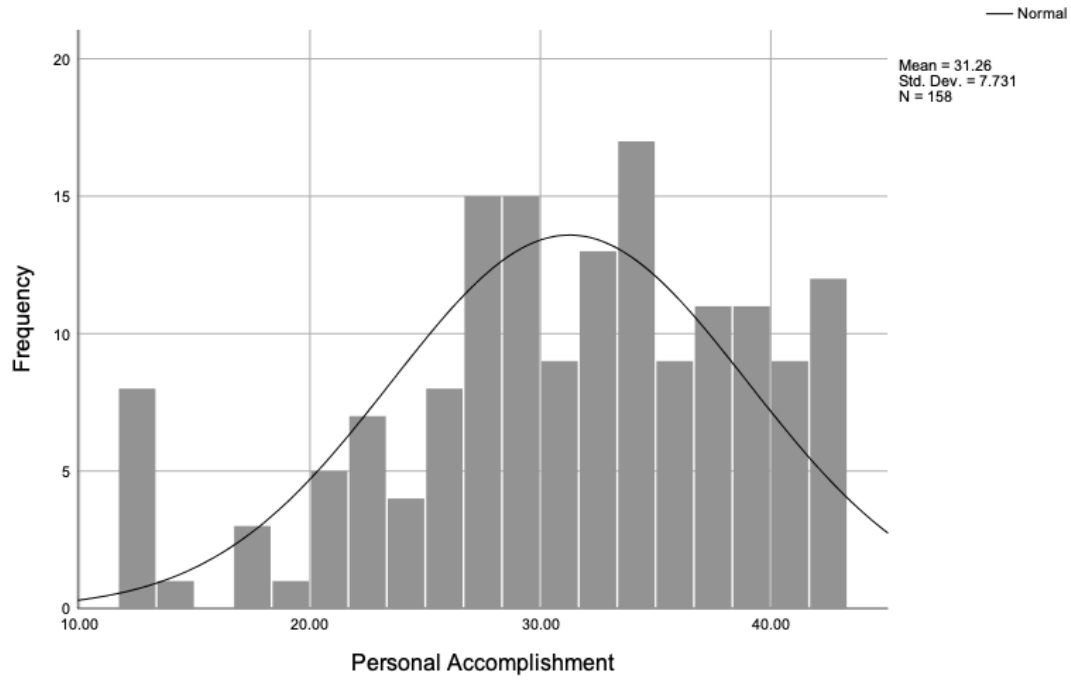


**Figure 5.4.**

*Histogram Depicting the Distribution of Job Demands*

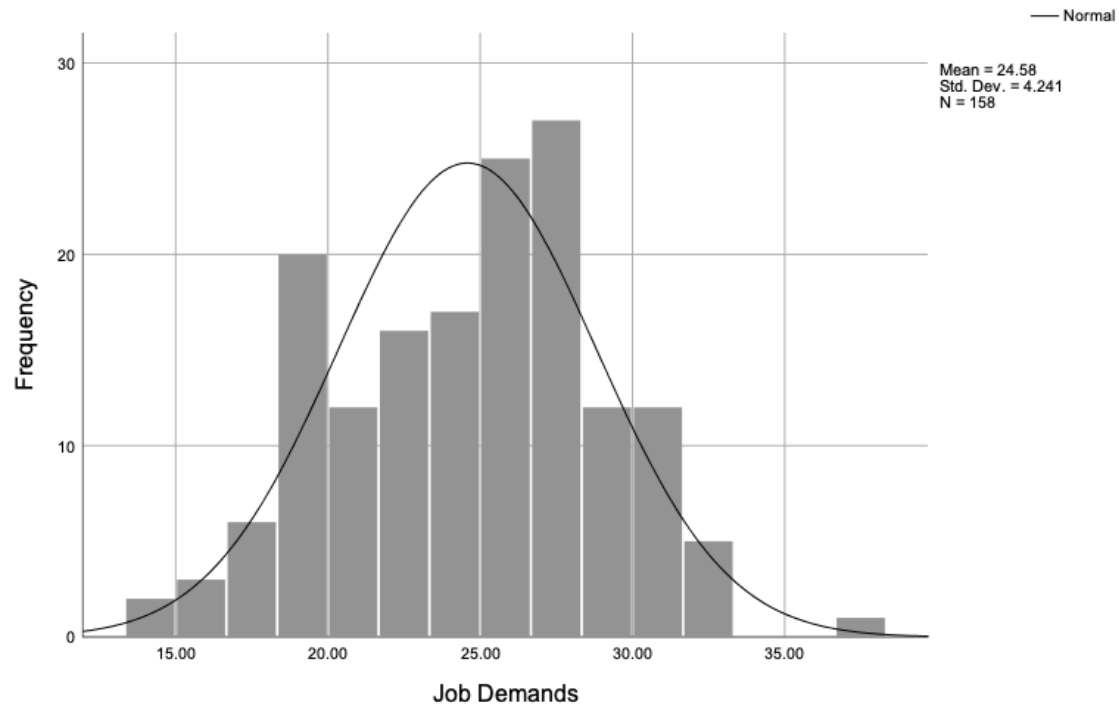
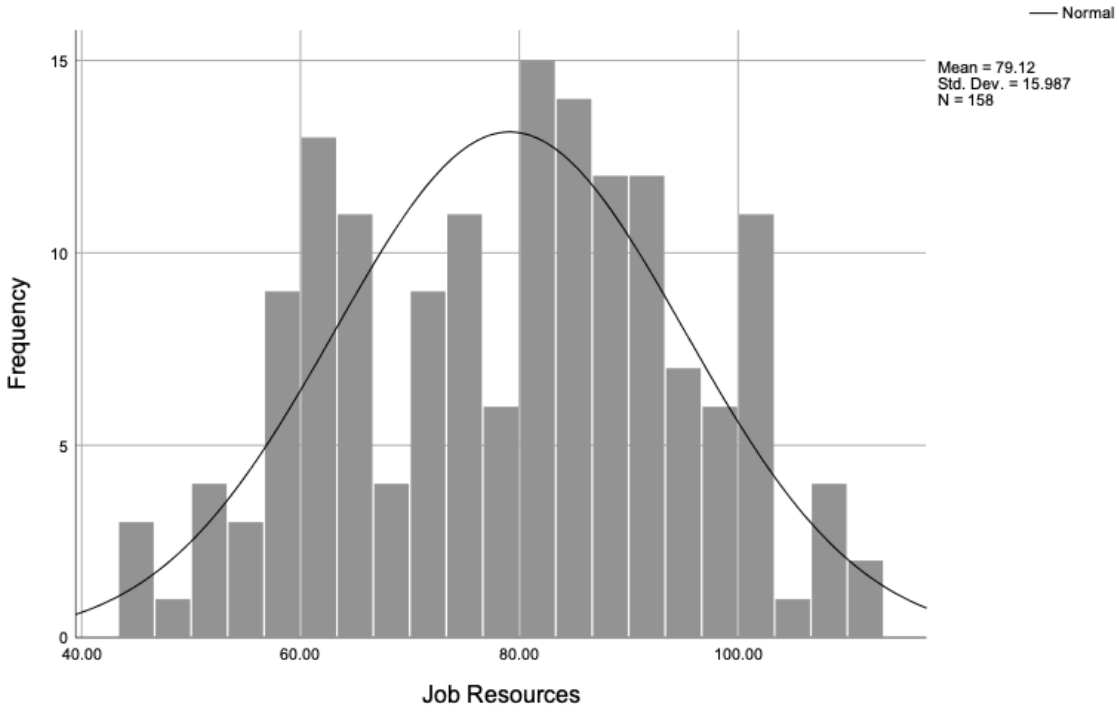



**Figure 5.5.**

*Histogram Depicting the Distribution of Job Resources*



**Outliers Assumption**

**Figure 5.6.**

*Boxplot Depicting the Distribution of Workplace Bullying*

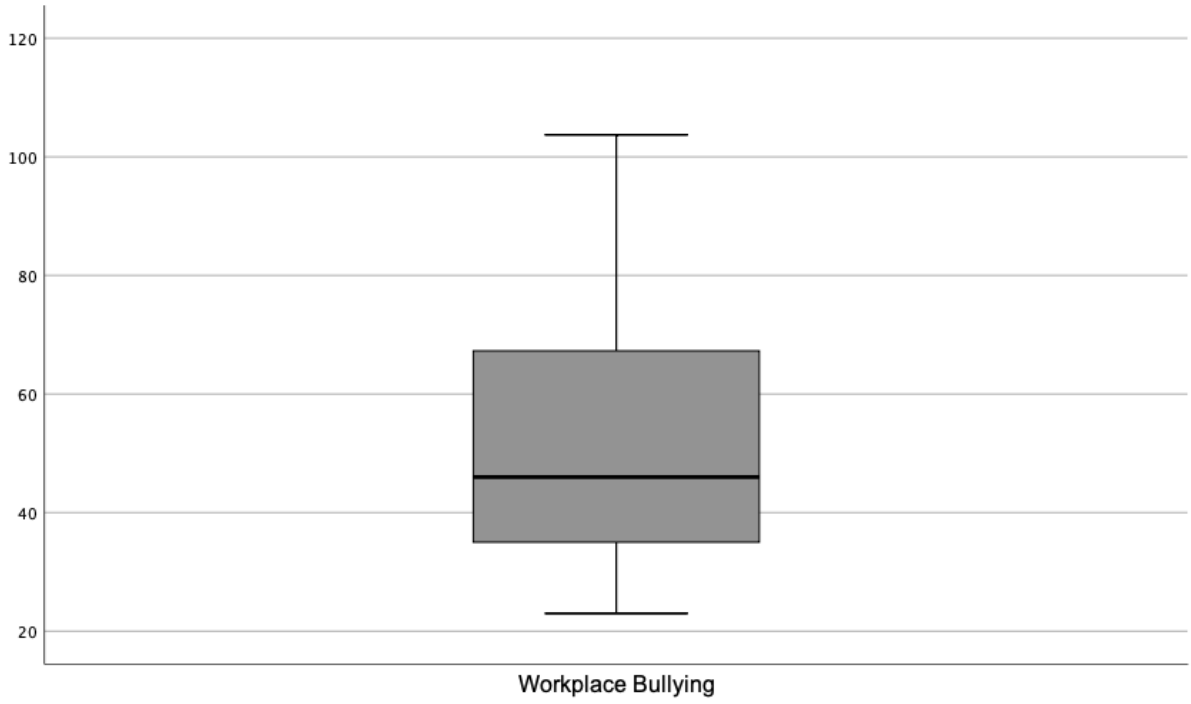



**Figure 5.7.**

*Boxplot Depicting the Distribution of Emotional Exhaustion*

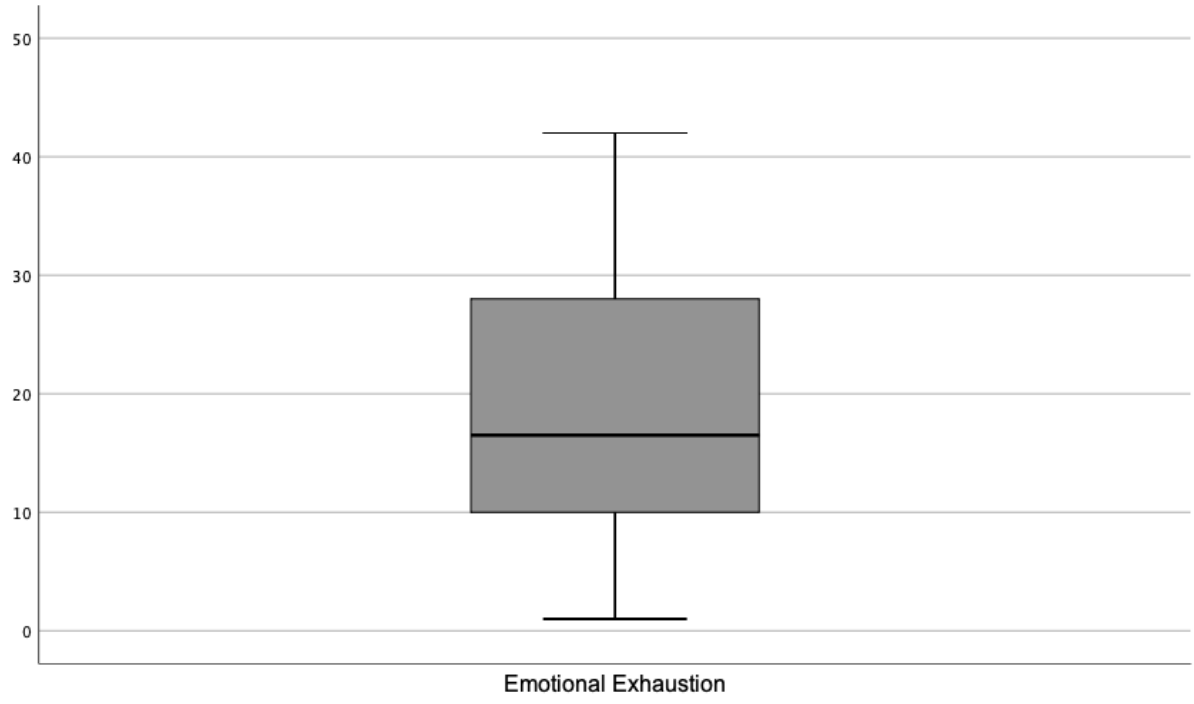


**Figure 5.8.**

*Boxplot Depicting the Distribution of Depersonalisation*

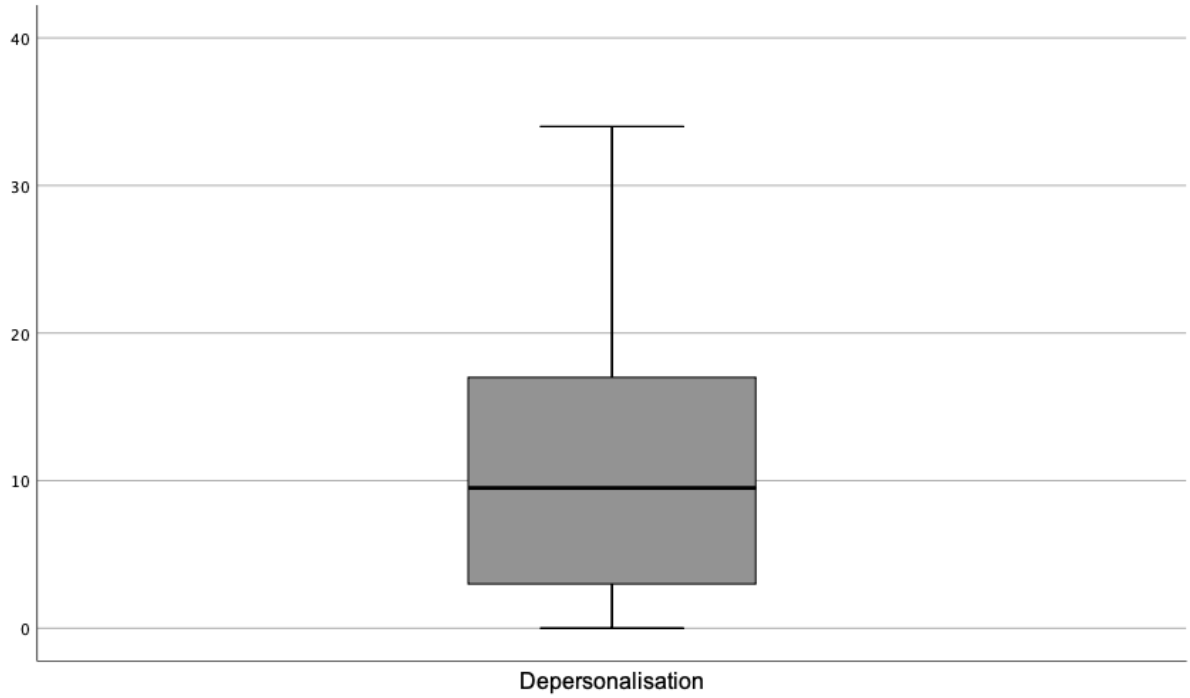



**Figure 5.9.**

*Boxplot Depicting the Distribution of Personal Accomplishment*

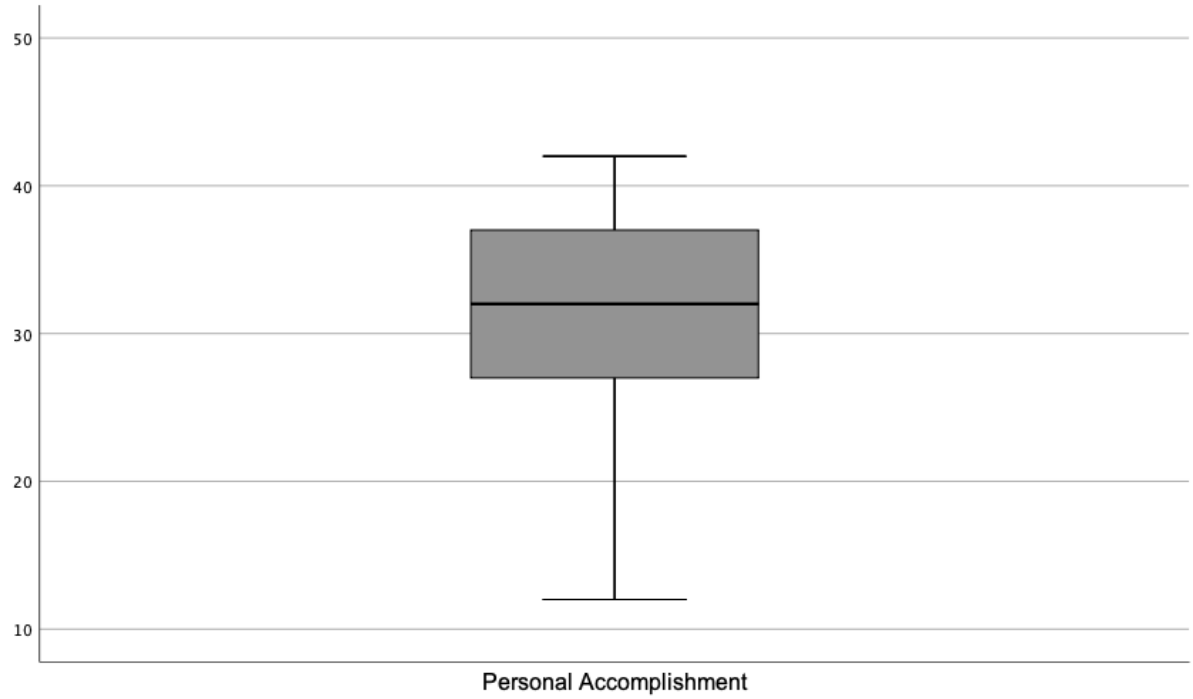


**Figure 5.10.**

*Boxplot Depicting the Distribution of Job Demands*

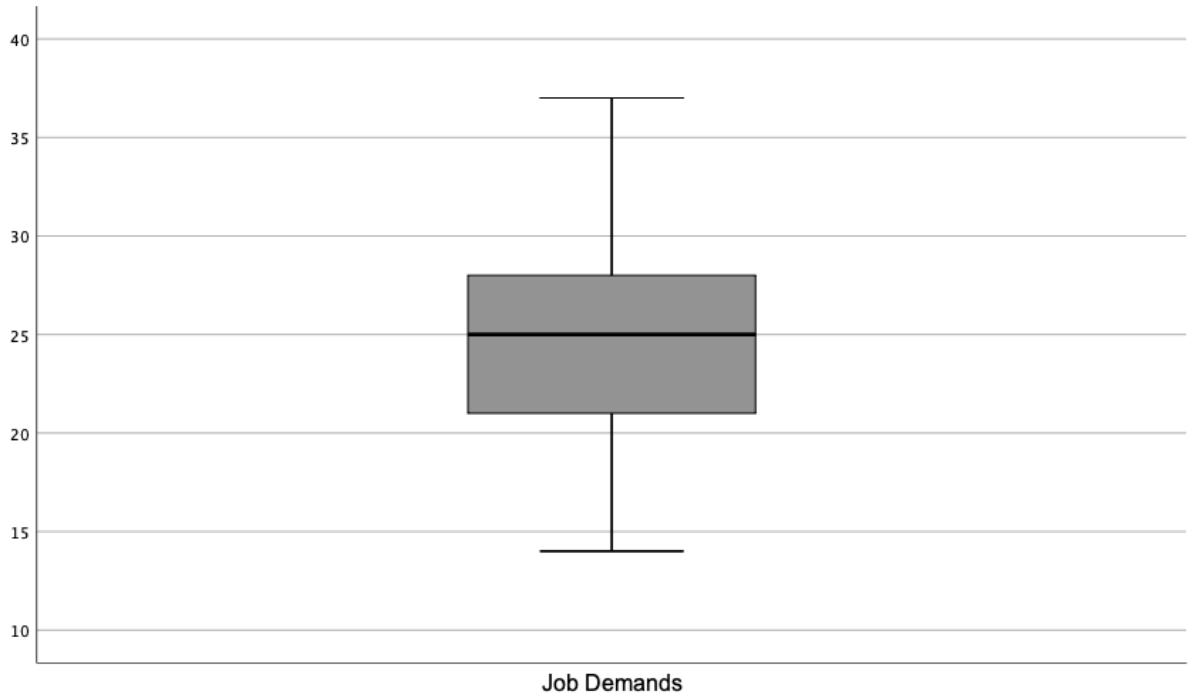
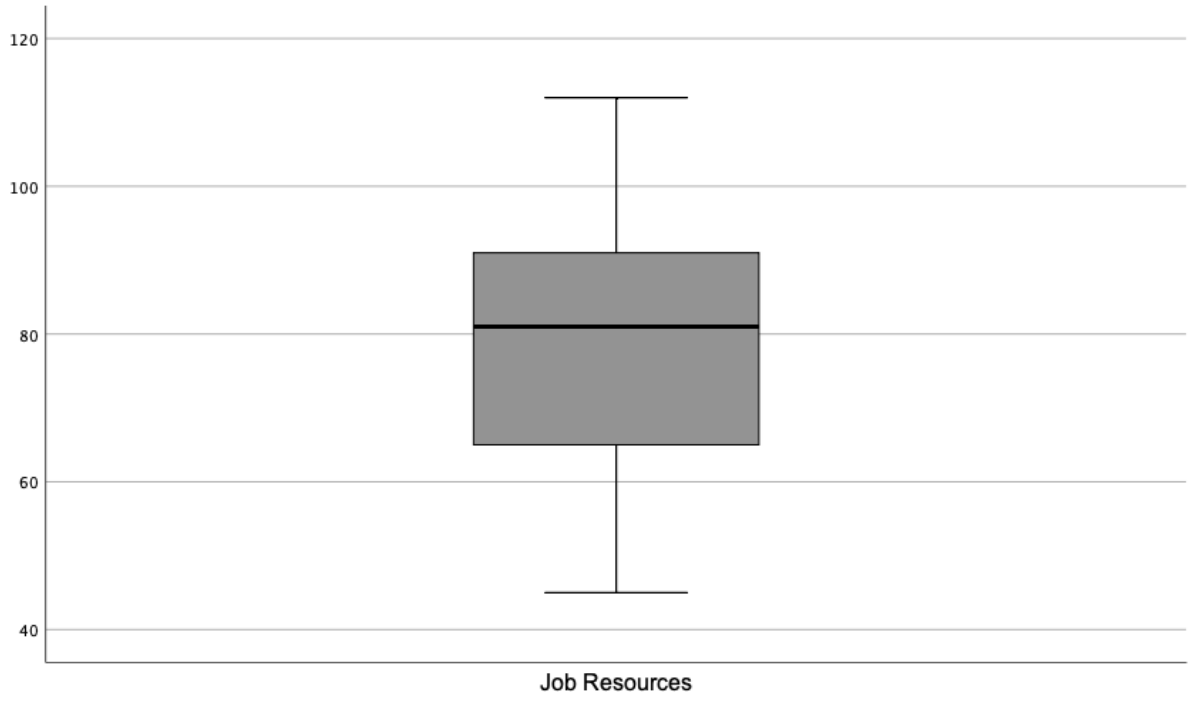



**Figure 5.11.**

*Boxplot Depicting the Distribution of Job Resources*



**Homoscedasticity and Linearity Assumption**

**Figure 5.12.**

*Graph Depicting the Distribution of the Standardised Residuals with Emotional Exhaustion as the Dependent Variable*

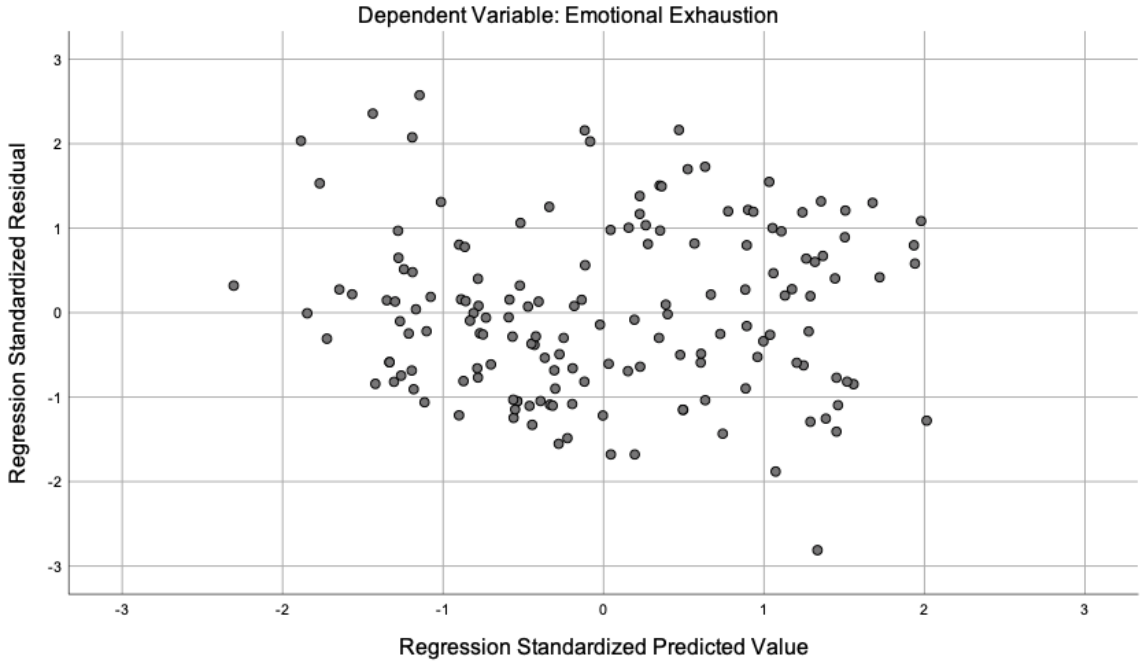



**Figure 5.13.**

*Graph Depicting the Distribution of the Standardised Residuals with Depersonalisation as the Dependent Variable*

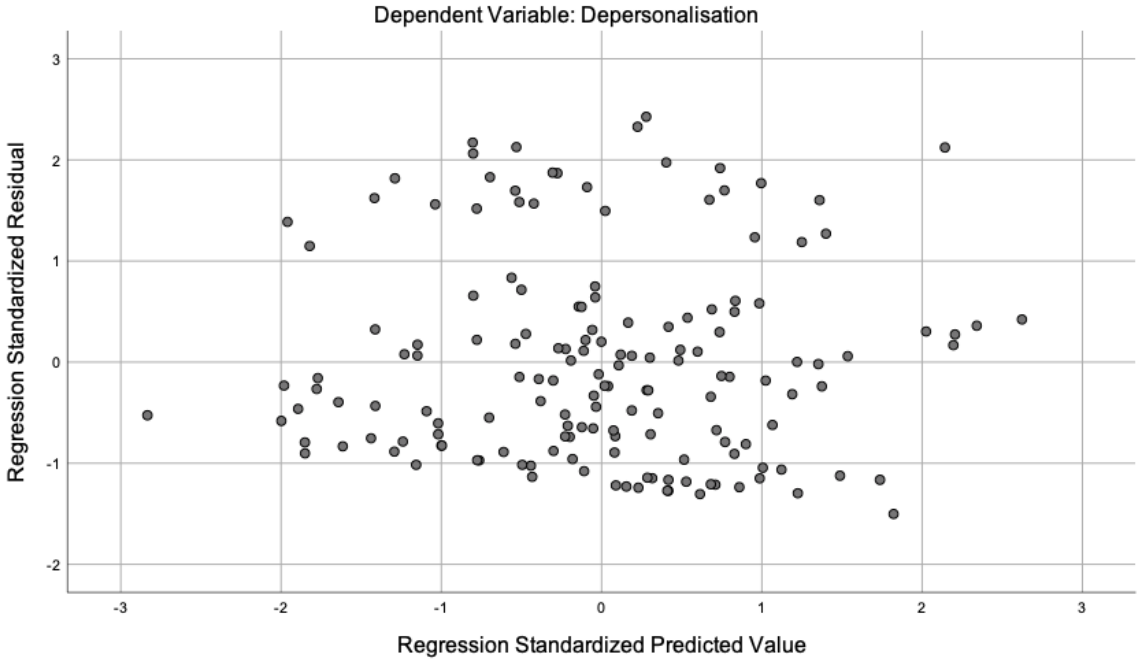
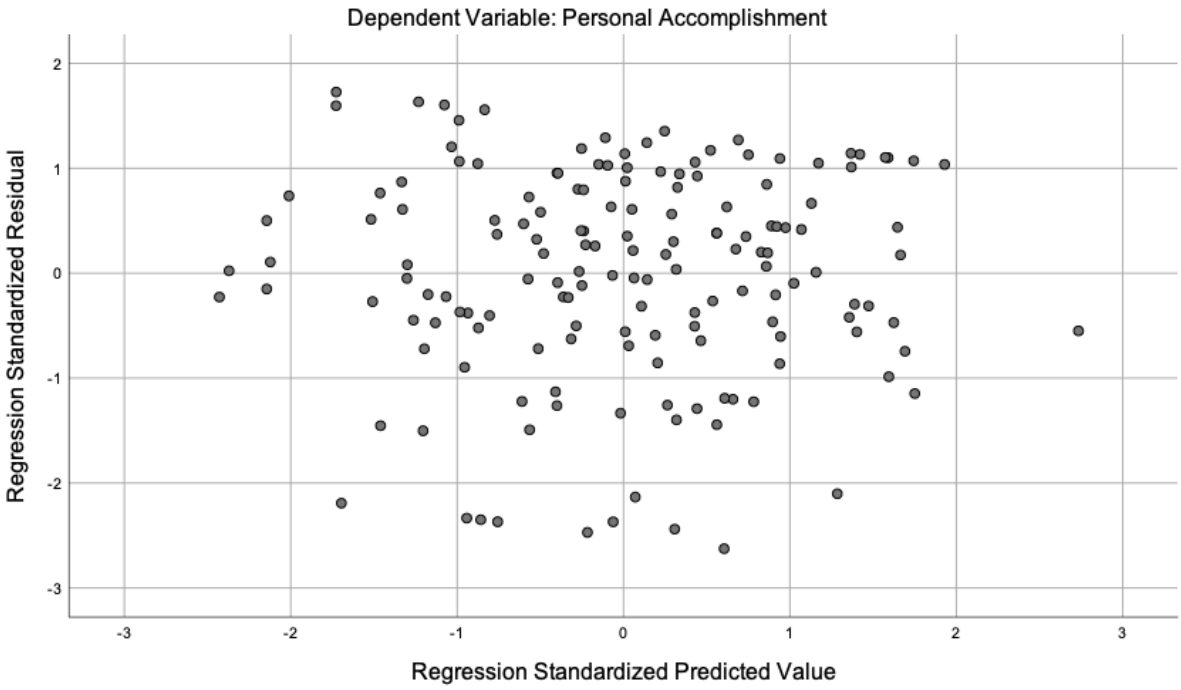


**Figure 5.14.**

*Graph Depicting the Distribution of the Standardised Residuals with Personal Accomplishment as the Dependent Variable*



## Appendix I: Non-Significant ANOVAs

### Group Differences Between Biographical Variables

#### *Group Differences for Age-Group*

**ANOVA for Age-Group and WPB.** One-way ANOVA was conducted to compare EE and the age groups (21 to 30; 31 to 40; 41 to 50, 51 to 60 and 60+ years old) of respondents. There was not a significant difference in age groups on EE at the p < .05 level for the five age groups $F(4, 149) = 1.956$, $p = .104$.

**ANOVA for Age-Group and EE.** One-way ANOVA was conducted to compare EE and the age groups of respondents. There was not a significant difference in age groups on EE at the p < .05 level for the five age groups $F(4, 149) = .943$, $p = .573$.

**ANOVA for Age-Group and DP.** One-way ANOVA was conducted to compare DP and the age groups of respondents. There was not a significant difference in age groups on DP at the p < .05 level for the five age groups $F(4, 149) = .778$, $p = .818$.

**ANOVA for Age-Group and PA.** One-way ANOVA was conducted to compare PA and the age groups of respondents. There was not a significant difference in age groups on DP at the p < .05 level for the five age groups $F(4, 149) = 1.087$, $p = .357$.

**ANOVA for Age-Group and JD.** One-way ANOVA was conducted to compare PA and the age groups of respondents. There was not a significant difference in age groups on DP at the p < .05 level for the five age groups $F(4, 149) = 1.997$, $p = .098$.

**ANOVA for Age-Group and JR.** One-way ANOVA was conducted to compare PA and the age groups of respondents. There was not a significant difference in age groups on DP at the p < .05 level for the five age groups $F(4, 149) = .754$, $p = .557$.

**Table 5.1.**

*Summary of ANOVA Age Group*

| Variables | Source | Sum of Squares | df | Mean Square | F | P value |
|---|---|---|---|---|---|---|
| WPB | Between groups | 2633.911 | 4 | 658.478 | 1.956 | .104 |
| | Within groups | 50166.538 | 149 | 336.688 | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| EE | Between groups | 5166.1514 | 4 | 126.004 | .943 | .573 |
| | Within groups | 14960.994 | 149 | 133.580 | | |
| DP | Between groups | 2957.249 | 4 | 72.128 | .778 | .818 |
| | Within groups | 10382.297 | 149 | 92.699 | | |
| PA | Between groups | 2348.315 | 4 | 64.349 | 1.087 | .357 |
| | Within groups | 6627.773 | 149 | 59.177 | | |
| JD | Between groups | 185.320 | 4 | 46.330 | 1.997 | .098 |
| | Within groups | 3457.138 | 149 | 23.202 | | |
| JR | Between groups | 1041.181 | 4 | 260.295 | .754 | .557 |
| | Within groups | 51447.174 | 149 | 345.283 | | |

*Note: df = degrees of freedom*

***Group Differences for Ethnicity***

**ANOVA for Ethnicity and WPB.** One-way ANOVA was conducted to compare WPB and the ethnicity (African, White, Coloured or Indian) of respondents. There was not a significant difference in age groups on EE at the $p < .05$ level for the four ethnicity groups $F(3, 144) = 2.453$, $p = .066$.

**ANOVA for Ethnicity and EE.** One-way ANOVA was conducted to compare EE and the ethnicity of respondents. There was not a significant difference in age groups on EE at the $p < .05$ level for the four ethnicity groups $F(3, 144) = .279$, $p = .841$.

**ANOVA for Ethnicity and DP.** One-way ANOVA was conducted to compare DP and the ethnicity of respondents. There was not a significant difference in age groups on DP at the $p < .05$ level for the four ethnicity groups $F(3, 144) = .211$, $p = .889$.

**ANOVA for Ethnicity and PA.** One-way ANOVA was conducted to compare DP and the ethnicity of respondents. There was not a significant difference in age groups on DP at the $p < .05$ level for the four ethnicity groups $F(3, 144) = 1.228$, $p = .302$

**ANOVA for Ethnicity and JD.** One-way ANOVA was conducted to compare JD and the ethnicity of respondents. There was not a significant difference in age groups on EE at the p < .05 level for the four ethnicity groups $F(3, 144) = .670$, $p = .572$.

**ANOVA for Ethnicity and JR.** One-way ANOVA was conducted to compare JR and the ethnicity of respondents. There was not a significant difference in age groups on EE at the p < .05 level for the four ethnicity groups $F(3, 144) = .479$, $p = .698$.

**Table 5.2.**

*Summary of ANOVA Ethnicity*

| Variables | Source | Sum of Squares | df | Mean Square | F | P value |
|---|---|---|---|---|---|---|
| WPB | Between groups | 2504.765 | 3 | 834.922 | 2.453 | .066 |
| | Within groups | 29017.085 | 144 | 349.396 | | |
| EE | Between groups | 110.367 | 3 | 36.789 | .279 | .841 |
| | Within groups | 19007.495 | 144 | 131.996 | | |
| DP | Between groups | 55.418 | 3 | 18.473 | .211 | .889 |
| | Within groups | 12654.117 | 144 | 87.491 | | |
| PA | Between groups | 213.535 | 3 | 71.178 | 1.228 | .302 |
| | Within groups | 8346.504 | 144 | 57.962 | | |
| JD | Between groups | 49.584 | 3 | 16.528 | .670 | .572 |
| | Within groups | 3550.420 | 114 | 24.656 | | |
| JR | Between groups | 509.820 | 3 | 169.940 | .479 | .698 |
| | Within groups | 51139.036 | 144 | 355.132 | | |

*Note: df = degrees of freedom*

### *Group Differences for Home Language*

**ANOVA for Home Language and WPB.** One-way ANOVA was conducted to compare EE and the home language (English, Afrikaans, isiZulu, isiXhosa, Sesotho, Sepedi, Setswana, Xitsonga, Other) of respondents. There was no significant difference on WPB for the nine home language groups $F(8, 146) = 1.123$, $p = .351$.

**ANOVA for Home Language and EE.** One-way ANOVA was conducted to compare EE and the home language of respondents. There was no significant difference on EE for the nine home language groups $F(8, 146) = .548$, $p = .819$.

**ANOVA for Home Language and DP.** One-way ANOVA was conducted to compare DP and the home language of respondents. There was no significant difference on DP for the nine home language groups $F(8, 146) = .720$, $p = .673$.

**ANOVA for Home Language and PA.** One-way ANOVA was conducted to compare PA and the home language of respondents. There was not a significant difference in age groups on PA for the nine home language groups $F(8, 146) = 1.528$, $p = .152$.

**ANOVA for Home Language and JD.** One-way ANOVA was conducted to compare JD and the home language of respondents. There was not a significant difference in age groups on JD for the nine home language groups $F(8, 146) = .953$, $p = .475$.

**ANOVA for Home Language and JR.** One-way ANOVA was conducted to compare JR and the home language of respondents. There was not a significant difference in age groups on PA for the nine home language groups $F(8, 146) = 704$, $p = .688$.

**Table 5.3.**

*Summary of ANOVA Home Language*

| Variables | Source | Sum of Squares | df | Mean Square | F | P value |
|---|---|---|---|---|---|---|
| WPB | Between groups | 3071.592 | 8 | 383.949 | 1.123 | .351 |
| | Within groups | 49908.062 | 146 | 341.836 | | |
| EE | Between groups | 587.996 | 8 | 73.500 | .548 | .819 |
| | Within groups | 19580.516 | 146 | 134.113 | | |
| DP | Between groups | 510.540 | 8 | 63.817 | .720 | .673 |
| | Within groups | 12932.574 | 146 | 88.579 | | |
| PA | Between groups | 717.513 | 8 | 89.689 | 1.528 | .152 |
| | Within groups | 8571.517 | 146 | 58.709 | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| JD | Between groups | 180.944 | 8 | 22.618 | .953 | .475 |
| | Within groups | 3465.790 | 146 | 23.738 | | |
| JR | Between groups | 1965.976 | 8 | 245.747 | .704 | .688 |
| | Within groups | 50968.564 | 146 | 349.100 | | |

*Note: df = degrees of freedom*

***Group Differences for Marital Status***

**ANOVA for Marital Status and WPB.** One-way ANOVA was conducted to compare WPB and the marital status (married, not married, or living with partner) of respondents. There was no significant difference on WPB for the marital status groups $F(5, 146) = .913$, $p = .474$

**ANOVA for Marital Status and EE.** One-way ANOVA was conducted to compare EE and the marital status (married, not married, or living with partner) of respondents. There was no significant difference on EE for the marital status groups $F(5, 146) = 1.903$, $p = .097$.

**ANOVA for Marital Status and DP.** One-way ANOVA was conducted to compare DP and the home language of respondents. There was no significant difference on DP at the p for the three marital status groups $F(8, 146) = 2.075$, $p = .072$.

**ANOVA for Marital Status and PA.** One-way ANOVA was conducted to compare PA and the home language of respondents. There was not a significant on PA at the $p < .05$ level for the three marital status groups $F(8, 146) = 1.658$, $p = .148$

**ANOVA for Marital Status and JD.** One-way ANOVA was conducted to compare JD and the home language of respondents. There was not a significant on JD at the $p < .05$ level for the three marital status groups $F(8, 146) = .762$, $p = .579$.

**ANOVA for Marital Status and JR.** One-way ANOVA was conducted to compare JR and the home language of respondents. There was not a significant on JR at the $p < .05$ level for the three marital status groups $F(8, 146) = .749$, $p = .588$.

**Table 5.4.**

*Summary of ANOVA Marital Status*

| Variables | Source | Sum of Squares | df | Mean Square | F | P value |
|---|---|---|---|---|---|---|
| WPB | Between groups | 1540.386 | 5 | 308.077 | .913 | .474 |
| | Within groups | 49250.928 | 146 | 337.335 | | |
| EE | Between groups | 1201.373 | 5 | 240.275 | 1.903 | .097 |
| | Within groups | 18437.282 | 146 | 126.283 | | |
| DP | Between groups | 889.501 | 5 | 177.900 | 2.075 | .072 |
| | Within groups | 12518.281 | 146 | 85.742 | | |
| PA | Between groups | 419.327 | 5 | 98.265 | 1.658 | .148 |
| | Within groups | 8651.492 | 146 | 59.257 | | |
| JD | Between groups | 90.989 | 5 | 18.198 | .762 | .579 |
| | Within groups | 3487.310 | 146 | 23.886 | | |
| JR | Between groups | 1299.529 | 5 | 259.906 | .749 | .588 |
| | Within groups | 50686.375 | 146 | 347.167 | | |

*Note: df = degrees of freedom*

***Group Differences for Number of Dependents***

**ANOVA for Number of Dependents and WPB.** One-way ANOVA was conducted to compare WPB and the number of dependents (none, one or more) of respondents. There was no significant difference on WPB at the $p < .05$ level for the two number of dependents groups $F(1, 150) = .402$, $p = .807$.

**ANOVA for Number of Dependents and EE.** One-way ANOVA was conducted to compare EE and the number of dependents (none, one or more) of respondents. There was no significant difference on EE at the $p < .05$ level for the two number of dependents groups $F(1, 150) = .011$, $p = .918$.

***ANOVA for Number of Dependents and DP***

One-way ANOVA was conducted to compare DP and the number of dependents of respondents. There was no significant difference on DP at the for the two number of dependents groups $F(1, 150) = 779$, $p = .379$.

***ANOVA Number of Dependents and PA***

One-way ANOVA was conducted to compare PA and the number of dependents of respondents. There was not a significant difference on PA at the $p < .05$ level for the two number of dependent groups $F(1, 150) = .595$, $p = .442$.

***ANOVA Number of Dependents and JD***

One-way ANOVA was conducted to compare JD and the number of dependents of respondents. There was not a significant difference on JD at the $p < .05$ level for the two number of dependent groups $F(1, 150) = 1.483$, $p = .210$.

***ANOVA Number of Dependents and JR***

One-way ANOVA was conducted to compare JR and the number of dependents of respondents. There was not a significant difference on JR at the $p < .05$ level for the two number of dependent groups $F(1, 150) = .898$, $p = .467$.

**Table 5.5.**

*Summary of ANOVA Number of Dependents*

| Variables | Source | Sum of Squares | df | Mean Square | F | P value |
|---|---|---|---|---|---|---|
| WPB | Between groups | 560.120 | 1 | 140.030 | .402 | .807 |
| | Within groups | 51241.601 | 150 | 348.482 | | |
| EE | Between groups | 1.404 | 1 | 1.404 | .011 | .918 |
| | Within groups | 19967.292 | 150 | 133.115 | | |
| DP | Between groups | 68.968 | 1 | 68.986 | .779 | .379 |
| | Within groups | 13284.489 | 150 | 88.563 | | |
| PA | Between groups | 35.360 | 1 | 35.360 | .595 | .442 |
| | Within groups | 8916.466 | 150 | 59.443 | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| JD | Between groups | 140.768 | 1 | 35.192 | 1.483 | .210 |
| | Within groups | 3488.165 | 150 | 23.729 | | |
| JR | Between groups | 1236.431 | 1 | 309.108 | .898 | .467 |
| | Within groups | 50602.425 | 150 | 344.234 | | |

*Note: df = degrees of freedom*

***Group Differences for Level of Education***

**ANOVA for Home Language and WPB.** One-way ANOVA was conducted to compare WPB and the level of education (technical trade, diploma, degree/advanced diploma, honours/post-graduate diploma, masters or doctorate) of respondents. There was not a significant difference on WPB for the six education groups $F(5, 147) = 3.015$, $p = .310$

**ANOVA for Home Language and EE.** One-way ANOVA was conducted to compare EE and the level of education (technical trade, diploma, degree/advanced diploma, honours/ post-graduate diploma, masters or doctorate) of respondents. There was not a significant difference on EE for the six level of education groups $F(5, 147) = .762$, $p = .579$.

**ANOVA for Home Language and DP.** One-way ANOVA was conducted to compare DP and the home language of respondents. There was not a significant difference on DP at the $p < .05$ level for the six level of education groups $F(1, 147) = 1.893$, $p = .099$.

**ANOVA for Home Language and PA.** One-way ANOVA was conducted to compare PA and the home language of respondents. There was no significant difference on PA at the $p < .05$ level for the six level of education groups $F(5, 147) = .169$, $p = .974$.

**ANOVA for Home Language and JD.** One-way ANOVA was conducted to compare JD and the home language of respondents. There was no significant difference on JD at the $p < .05$ level for the six level of education groups $F(5, 147) = .301$, $p = .912$

**ANOVA for Home Language and JR.** One-way ANOVA was conducted to compare JR and the home language of respondents. There was no significant difference on JR at the $p < .05$ level for the six level of education groups $F(5, 147) = 1.293$, $p = .270$.

**Table 5.6.**

*Summary of ANOVA Level of Education*

| Variables | Source | Sum of Squares | df | Mean Square | F | P value |
|---|---|---|---|---|---|---|
| WPB | Between groups | 4781.213 | 5 | 956.243 | 3.015 | .310 |
| | Within groups | 46629.150 | 147 | 317.205 | | |
| EE | Between groups | 505.513 | 5 | 101.103 | .762 | .579 |
| | Within groups | 19501.634 | 147 | 132.664 | | |
| DP | Between groups | 20007.147 | 5 | 161.117 | 1.893 | .099 |
| | Within groups | 805.583 | 147 | 85.119 | | |
| PA | Between groups | 52.129 | 5 | 10.426 | .169 | .974 |
| | Within groups | 9081.921 | 147 | 561.782 | | |
| JD | Between groups | 35.866 | 5 | 7.173 | .301 | .912 |
| | Within groups | 3508.214 | 147 | 23.865 | | |
| JR | Between groups | 2138.727 | 5 | 427.745 | 1.293 | .270 |
| | Within groups | 48628.769 | 147 | 330.808 | | |

*Note: df = degrees of freedom*

**Appendix J: Turnitin Report**

2386631:Daniella_Solomon_Masters_Thesis.docx

ORIGINALITY REPORT

| 14% | 10% | 7% | 5% |
|---|---|---|---|
| SIMILARITY INDEX | INTERNET SOURCES | PUBLICATIONS | STUDENT PAPERS |

PRIMARY SOURCES

| | | |
|---|---|---|
| 1 | Submitted to University of Cape Town<br>Student Paper | 1% |
| 2 | www.science.gov<br>Internet Source | 1% |
| 3 | "Pathways of Job-related Negative Behaviour", Springer Science and Business Media LLC, 2021<br>Publication | <1% |
| 4 | etd.uwc.ac.za<br>Internet Source | <1% |
| 5 | link.springer.com<br>Internet Source | <1% |
| 6 | www.mrc.ac.za<br>Internet Source | <1% |
| 7 | Submitted to University of Witwatersrand<br>Student Paper | <1% |
| 8 | Submitted to Napier University<br>Student Paper | <1% |