Master of Arts in Organisational Psychology

Title:

Workplace Bullying and Work Engagement amongst Teachers: A Job Demands-Resources Perspective

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Plagiarism Declaration

I, Tamsyn Ross, 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: 15 March 2023

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Abstract

Within the many South African schools across the country, the prevalence of workplace bullying, from both colleagues and supervisors alike, has increased substantially. In addition to the failing educational system, which brings about many different challenges, teachers are subjected to working in highly toxic environments, whereby substantial demands coexist with limited resources. Using the Job-Demands Resources model as a framework, we are able to better understand how in these environments, workplace bullying flourishes. As severe organisational and individual consequences arise as a result of workplace bullying, such as being disengaged from work itself, it is imperative to reduce the number of incidents occurring. This research aimed to determine the prevalence of workplace bullying amongst teachers in Gauteng and its relationship to work engagement. Furthermore, the extent to which the relationship between workplace bullying and work engagement is moderated by job demands and job resources was also explored. Within the current study, which utilised secondary data, participants were required to complete a survey comprising four questionnaires, namely a Demographic Questionnaire, the Job Demands-Resources Scale, the Negative Social Acts Questionnaire-Revised (which measures workplace bullying) as well as the Utrecht Work Engagement Scale. Teachers (n=158) from 14 schools across Gauteng comprised the final sample. Results indicated that workplace bullying was significantly correlated to work engagement, in addition to its subcomponents of vigour, dedication and absorption. Further, a significant relationship between workplace bullying and both job demands and job resources, known collectively as job characteristics, was established. These findings aligned with previous literature. Moderated Multiple Regression revealed the moderating effect of job resources on the relationship between workplace bullying and work engagement, and its subcomponents. However, these results were unexpected, as reverse-buffering effect was

reported. In the presence of higher job resources, the impact of workplace bullying on work engagement worsened. Despite job demands being significantly associated to workplace bullying, job demands was not found to moderate the relationship between workplace bullying and work engagement or its subcomponents. These counterintuitive findings are discussed along with the limitations of the present study as well as future recommendations.

Keywords: Teachers, Workplace Bullying, South Africa, Job Demands, Job Resources, Work Engagement, Vigour, Dedication, Absorption

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Chapter 1: Literature Review

1.1 Introduction

South African teachers are currently facing a multitude of challenges due to the failing educational system. As a result, teachers are found to be working in toxic environments that are characterized by high demands and stress (De Vos & Kirsten, 2015; De Wet & Jacobs, 2013; Jacob & Teise, 2019; Mthethwa, 2020; West & Meier, 2020). Such environments may foster Workplace Bullying (WPB), which is seen to negatively impact both the individual and the organization itself (Nielsen & Einarsen, 2012). WPB has been shown to negatively impact upon work engagement (WE) (Coetzee & Van Dyk, 2017; Einarsen et al., 2016; Rai & Agarwal, 2017; Rodriguez-Munoz et al., 2009). If teachers are bullied and disengaged, their performance ultimately suffers, and they often tend to leave the profession. Disengaged or experienced teachers leaving may compromise the quality of education received by learners, further perpetuating the problems found in the education sector (Merilainen et al., 2019). Despite the lack of research done in South Africa, WPB amongst teachers is widespread, and is high in comparison to other countries (De Wet & Jacobs, 2013). However, in both the global and local context, there are no substantive policies aimed at protecting teachers against WPB, and thus, this needs to be further developed (Jacobs & De Wet, 2018). The results from the study may help inform key policies regarding teacher-targeted WPB in South Africa, and lead to the development of interventions which may further prevent and reduce the number of WPB incidents, negative impact on well-being as well as teacher attrition (Batchelor, 2019; Pitsoe, 2013). As negative organisational outcomes result with both WPB and disengaged employees, the findings may be crucial to enhance educational practice.

1. 2 Defining Workplace Bullying

Over the past three decades, researchers have become increasingly interested in the global phenomena of WPB due to the detrimental effects it has on not only individuals, but also upon organisations (Nielsen & Einarsen, 2012). Initially, the term 'mobbing' was used by Leymann in Scandinavia (1990, as cited in Einarsen et al., 2003) to describe aggressive behaviour in the workplace, however, 'bullying' has since been adopted as the preferred expression in English speaking countries. Despite many forms of aggression existing at work, such 'incivility' and 'social undermining' amongst others, WPB is considered as a distinct construct due to its characterising features of persistency and power differentials (Rai & Agarwal, 2016). Accordingly, infrequent acts of mistreatment would not constitute WPB, as such negative behaviour would need to occur on a weekly basis and extend over a period of six months (Einarsen et al., 2003). Thus, WPB may be defined as the "situations where an employee repeatedly and over a prolonged time period is exposed to harassing behaviour from one or more colleagues (including subordinates and leaders) and where the targeted person is unable to defend him/herself against this systematic mistreatment" (Nielsen & Einarsen, 2018, p.73). An individual may feel helpless and unable to protect themselves against such negative acts due to the imbalance of power that prevails between two individuals, which ultimately produces targets and perpetrators. Such power differentials may originate from existing formal hierarchies inherent in particular organisations, or may be informal in nature, and exist due to the information or expertise an individual may possess (Einarsen et al., 2003). Power differentials can also occur when a group of individuals target a single individual. The group may be on the same level as the target in the hierarchy, but their power is accrued by virtue of the numbers in the 'gang' (Finchilescu et al., 2018).

Thus, WPB is considered to be exposure to unwanted negative acts over a prolonged period of time, combined with inability to defend oneself, and resulting from some form of power differential, which may produce significant stress for an individual and negatively affect their overall health and wellbeing (Nielsen & Einarsen, 2012). It is however noted that although it is argued that it should take place over a prolonged period, 'one act' can be so severe that it can be seen to constitute WPB (Branch et al., 2013).

WPB behaviour may further be classified into three distinct categories, namely person-related, physically-intimidating or work-related bullying (Einarsen et al., 2009; Rai & Agarwal, 2016). Exposure to persistent criticism, humiliation in front of colleagues, being the subject of gossip or rumours, in addition to being socially isolated from others are key features of person-related bullying, whilst being exposed to threats of violence or intimidation represents physically-intimidating bullying behaviour (Einarsen et al., 2009). Work-related bullying, however, occurs when information is withheld from individuals, when unreasonable deadlines are set, as well an individual being subjected to either an excessive or reduced workload (Einarsen et al., 2009).

1.3 Coping with Workplace Bullying – The Transactional Model Framework

Although many individuals may experience similar situations that are inherently stressful and taxing, such as bullying, the way a situation is perceived and ultimately responded to may differ from person to person (Folkman, 2012). In order to gauge the situation and determine whether the particular circumstances overloads or exceeds an individual's resources, the stressor undergoes a two-step cognitive appraisal process, known as primary and secondary appraisal, whereby the personal significance and severity of an event is evaluated (Folkman, 1986). While

the current study's framework is based off the Job Demands-Resources model, which will be later explored, the Transactional Model of Stress and Coping is considered in terms of appraising stress.

Within the primary appraisal phase, any stimuli that an individual is exposed to is appraised according to the impact it may have on their well-being (Folkman, 1986). As individuals may encounter a variety of different stimuli within their environments, in order to appraise and ultimately respond appropriately, such interactions are classified as either "irrelevant, benign-positive or stressful" (Folkman, 1986, p. 840). If a specific transaction is classified as 'irrelevant', the individual believes that the event is inconsequential to their well-being and would not require any further action to be initiated (Biggs et al., 2017). If an individual inherently believes that a particular interaction within their environment would be beneficial to their overall well-being, the situation would be appraised as 'benign-positive', further diminishing the need for any additional action. However, on the other hand, if an individual perceives the stimulus in a negative manner, whereby there is a belief that there is the potential for harm/loss to occur, or the interaction is considered particularly threatening their overall mental or physical state of well-being, individuals may then consider the event to be 'stressful', which triggers the use of certain coping mechanisms (Folkman, 1986). However, the exception to this is challenges. While certain taxing events may reduce one's well-being, if there is potential for individual growth and development, individuals may be excited by this prospect rather than feeling anxious or fearful and subsequently would not deem a particular event as 'stressful' (Biggs et al., 2017). Thus, before moving to the second phase of appraisal, individuals need to evaluate whether certain coping mechanisms are required or not based on the type of appraisal the event has received.

After the individual has appraised and identified the situation as being stressful, and negative emotions persist, it is important to gain a deeper understanding of how the stressor is going to be effectively managed. When entering the second appraisal stage, it is necessary for the individual to take into account what available resources he or she has against the demands they face, in order to determine what coping mechanisms or effort is required (Folkman, 1986). Through this iterative process, which is informed from both the environment and the individual themselves, the resultant coping style and outcomes are subsequently informed (Biggs et al., 2017).

Once this has been established, certain coping mechanisms are then deployed, in which "cognitive and behavioural efforts to reduce, minimize, master or tolerate the internal or external demands" (Folkman et al., 1986, p. 572) faced within one's environment are applied. Although not always successful, such coping techniques are used as a way of alleviating any distress stemming within the individual's environment. Ultimately, the way one is able to manage, or rather cope with a stressful situation, may determine the extent to which the effects of bullying (the stressor) are experienced (Van den Brande et al., 2017).

According to Lazarus and Folkman (1984, as cited in Folkman et al., 1986), individuals may try cope with a stressful situation in two over-arching ways, by either focusing on the problem at hand or rather controlling any emotions caused by the problem itself. While the former, known as problem-focused coping, involves directing one's efforts to confront and ultimately alleviate the demands that are being faced through acts of planning or seeking support of others, emotion-focused coping is used to help regulate the emotional response or reaction one has to a particular stressor, through venting their situations to others, or even by disengaging as a whole (Van den

Brande et al., 2018; Vranjes et al., 2022). Whilst different coping actions constitute the two broad categories (Folkman et al., 1986), when faced specifically with bullying incidents, four types of coping styles have been identified (Johannsdottir & Olafsson, 2004). Whilst the first active coping style involves *seeking help* from fellow colleagues, HR personnel or even trade union representatives, other individuals may try to manage the strenuous situation by deliberately approaching the bully to confront their actions, which is classified as *assertiveness.* Additionally, individuals may choose to *avoid* the situation (Johannsdottir & Olafsson, 2004) by engaging in frequent absenteeism or even at times quitting their job or industry as a whole, which aforementioned, has severe consequences for the organisation, or in the present study severe consequences for the teaching profession as a whole. Lastly, some victims may choose to disregard the problem and *do nothing,* in the hopes of the situation resolving itself over time. By participating in these passive strategies, the victim is essentially evading any interaction with the perpetrator, which in some instances is often seen as the easier thing to do (Van den Brande et al., 2018). Although different approaches may be used for different bullying situations or even in conjunction with one another, it is likely that if passive strategies are adopted bullying may persist, as no resolution is reached between the victim and the perpetrator (Johannsdottir & Olafsson, 2004). Although research has indicated that active strategies are often better in terms of attaining resolution (Bernstein & Trimm, 2016), in certain instances these too can be problematic. For example, it is noted that using certain active strategies like assertiveness may incite more hostility and ultimately increase bullying behaviours (Bernstein & Trimm, 2016).

While both active and passive strategies or emotion versus problem focused strategies may reduce the level of bullying experienced, some approaches may cause more undue strain. For

instance, when using emotion-focused tactics such as disengaging from a distressing situation or even supressing one's emotions, the source of the problem is not being dealt with, which in turn may result in decreased well-being (Van den Brande et al., 2018). However, despite this, it has been argued that certain stressors may respond better to certain approaches (Van den Brande et al., 2017). Thus, when faced with strenuous situations, individuals may choose a coping style to help deal with any demands that are faced in order to reduce the effects felt. Whether it is efficacious or not depends on a multitude of factors, however effort will still be deployed.

1.3.1 Personal Resources

When facing distressing events such as WPB, individuals may also draw upon the personal resources they possess to help alleviate any impact that may be felt (Xanthopoulou et al., 2013). As personal resources may assist individuals with navigating and ultimately controlling their environments, the hope, efficacy, optimism, or resilience beliefs they hold (also known as PsyCap), may be used as a coping mechanism against any demands faced within the environment (Xanthopoulou et al., 2012; Xanthopoulou et al., 2013). Whilst *hope* is the positive psychological state whereby individuals are motivated to achieve their goals by any means necessary, *optimism* refers to the belief that favourable outcomes will persist in one's life. Additionally, the level of confidence an individual possesses surrounding their capability to perform a certain task, is known as *self-efficacy* (Luthans & Youssef, 2007). *Resilience* on the other hand, relates to the ability to persevere through any difficulties faced and essentially recover from any setbacks encountered (Bakker & Derks, 2010). Ultimately, the way one perceives, and experiences certain environmental demands may be influenced by the personal resources one holds (Xanthopoulou et al., 2013). It is through the possession of such personal resources that individuals are able to cope

better with certain work stressors, such as bullying, due to a certain resilience developed (Cassidy et al., 2014; Van den Brande et al., 2020). For instance, individuals who are optimistic and hold their self-efficacy beliefs in high regard are proactive about strenuous situations, and feel they are able to continuously try solving the issues at hand regardless of any previous failures (Xanthopoulou et al., 2013). Accordingly, it is likely that individuals who hold such internal resources are more likely to choose active coping strategies over passive, which aforementioned, are seen as more efficacious (Van den Brande et al., 2018). Therefore, it may be crucial for organisations to develop these resources through various interventions and training programmes, as they are malleable in nature.

Personal resources may also include those external to the individual, such as **social support.** Within one's own social circle, which may consist of friends, family members and even work colleagues or supervisors, social support may be garnered through the various actions or behaviours that assist individuals in coping with stressful situations (Finchilescu et al., 2018). The impact of social support is profound, as the support from one's network can act as a resource, which can help buffer against the negative implications associated with taxing and arduous events such as WPB (Cohen & Wills, 1985, Nielsen et al., 2019; Paukszat et al., 2022). If an individual inherently believes that he/she is able to call upon the support of others in times of need, the experience of such stressors may be attenuated as one's coping ability as well as appraisal of a certain stressor may alter (Lakey & Cohen, 2000).

While social support can be provided by a range of individuals within one's social network, the type of support offered can too be differentiated. While various types of social support exist,

the construct can be broadly classified into two distinct types, namely instrumental support, and emotional support (Semmer et al., 2010). Whilst instrumental support involves helping individuals in a physical or tangible way, such as providing assistance with a difficult task or helping to solve certain problems, emotional support may consist of showing compassion and care towards someone, encouraging others through hardship, or even just listening to the problems faced by other individuals (Mathieu et al., 2019; Semmer et al., 2010). When faced with incidents of WPB, employees may draw upon these resources to try alleviate the negative impact that is incurred. For instance, in a study conducted by Nielsen et al. (2019), social support from both supervisors and fellow colleagues acted as protective shield against any mental distress experienced by victims of WPB. As the impact of WPB may be attenuated through acts of social support, the subsequent health implications may be significantly reduced. This too was supported in the South African context, as in the presence of social support, the effects of WPB on mental well-being was found to be reduced (Finchilescu et al., 2018). However, some research has indicated that positive effects stemming from social support may be dependent on who the providers are. Garcia et al. (2022) proposed that friends and family of a victim may only be able to provide limited and specific type of social support, as they do not have the ability to offer any instrumental support like co-workers or supervisors can. Mathieu et al. (2019) argued that contextual factors also need to be considered, as when compared to co-worker support, support received from one's supervisor was considerably more impactful and influential. However, if a lack of work-support exists, individuals may need to rely on the care, empathy and assistance from friends and family to manage the stress they are facing (Paukszat et al., 2022).

Aligned with the Conservation of Resources (COR) theory (Hobfoll, 2001), due to the fundamental role resources play in attenuating stressful conditions, it is proposed that individuals seek to procure and retain resources that are of value to them. If such resources are depleted, which include both personal and social resources amongst others, stress may be encountered (Bakker & Demerouti, 2007; Xanthopoulou et al., 2007). In order to avoid the loss of any resources, which contributes to an overall loss spiral, individuals are motivated to accumulate a 'resource reservoir' (Hobfoll et al., 2018). It is through this investment that resources may be replenished and ultimately used for any future encounters. Thus, individuals are able to draw upon multiple resources when needed (Van den Brande et al., 2018). This is particularly important for bullying situations as resources are often depleted within the process, leaving victims vulnerable and unable to replenish their bases in a timely manner (Tuckey & Neall, 2014). It is acknowledged however, that in some instances, regardless of how many resources individuals may have access to, the situation may be so harrowing that certain effects are still felt (Van den Brande et al., 2018).

1.3.2 Personality

When looking at WPB holistically, one also needs to consider individual qualities in conjunction to the environment in which the victims and perpetrators are located (Balducci et al., 2011). Although this factor is often overlooked due to conflicting findings, an individual's personality may explain why certain people are suspectable to being either a perpetrator or victim to WPB, in addition to explaining their coping abilities (Francioli et al., 2016; Matthiesen & Einarsen, 2010). Due to the specific personality traits individuals possess, the way a situation is perceived may differ accordingly (Nielsen & Knardahl, 2015). When looking at the Five Factor Model of Personality, previous research has indicated that targets do display similar personality

styles, such as high levels of neuroticism (Balducci et al., 2011; Pallesen et al., 2017), conscientiousness, and lower levels of extroversion (Coyne et al., 2000) and agreeableness (Nielsen et al., 2017).

Individuals who are considered highly neurotic are often characterised as pessimists, who view events and situations more negatively than others (Nielsen et al., 2017). As a result, they may be more inclined to view a certain incident as distressing, and thus may experience WPB more frequently than others. However, this too may be due to the fact that the behaviours they display, such as being insecure or constantly worrying about something, may be bothersome to others, who then may retaliate through various negative acts (Nielsen et al., 2017). Additionally, individuals who are highly conscientious, may display certain behavioural dispositions which result in feelings of jealousy from others due to the positive performance that is associated with highly conscientious individuals (Nielsen et al., 2017). However, it is also possible that individuals who are low in conscientious may too become targets of WPB (Glaso et al., 2007). This may be due to the flawed tactics they use as a way of coping with scrutiny from their superiors, when the work they conduct is not up to standard or due to the fact that their low standards let the rest of the team down and therefore they may be targeted by team members (Tepper et al., 2001). As such coping mechanisms involve participating in antagonistic actions within the workplace, frustration may too occur. In terms of extraversion, individuals who score low on this factor (i.e., introverts), may be more mindful and conscious of various negative acts towards them, when compared to others (Nielsen et al., 2017). Thus, despite various targets having different personality traits, certain similarities still exist.

However, it is crucial to note that when looking at the personalities of victims, the tendency to often blame the target or victim based on the various traits they possess should not be done in isolation, as various individual and organisational factors *must* be considered. One important aspect is that of Person-Organisation (P-O) fit. According to Kristof (1996), P-O fit can be described as the "compatibility between individuals and organisations" (Kristof (1996, p.3), in which the needs and values of the employee correspond with that of the organisation. Within the context of WPB, if a misalignment exists, individuals may consider themselves as part of the 'out-group' due to the perceived differences that exist and may be more prone to becoming a victim of WPB (Chung, 2017; Rai & Agarwal, 2020). As such, individuals may have difficulty in forming meaningful relationships with their fellow colleagues or supervisors, and thus the support they could potentially receive may also be diminished (Chung, 2017). As this may be particularly stressful and isolating for an individual, decreased well-being may ensue (Herkes et al., 2019).

1.4 Outcomes of Workplace Bullying

When employees experience such bullying behaviours, negative outcomes at both the individual and organisational level may ensue. WPB is found to be strongly associated with mental health issues (Nielsen & Einarsen, 2012), such as depression, anxiety (Einarsen & Mikkelson, 2003), panic attacks (Namie & Namie, 2004) and symptoms of post-traumatic stress (Matthiessen & Einarsen, 2004). Additionally, physical health problems such as musculoskeletal disorders (Nielsen & Einarsen, 2012), hypertension (Hallberg & Strandmark, 2006), difficulties in sleeping, somatic symptoms of bodily pain and headaches (Einarsen & Mikkelsen, 2003) and even suicidal ideation have been linked to WPB (Nielsen & Einarsen, 2018). Cardiac disease may also ensue if exposure takes place over extremely lengthy periods (Kivimaki et al, 2003). On an organisational

level, WPB was found to be associated with certain job-related outcomes, such as decreased WE or alternatively increased disengagement, decreased job satisfaction, increased turnover intention, absenteeism as well as lowered morale, productivity, and organisational commitment (Hoel et al., 2003; Nielsen & Einarsen, 2012). This in turn may be very costly to an organisation as decreased productivity may result, which ultimately may affect an organisation's bottom line (Einarsen, 2000). Considering the high prevalence of bullying reported within South Africa (up to 77.8%), it is crucial for organisations address the problem of WPB in order to counter the negative individual and organisational effects (Steinman, 2003, as cited in De Vos & Kirsten, 2015).

Despite WPB being a worldwide phenomenon and occurring across many industries, research has indicated that some sectors, such as health and education, are considered more at risk to WPB than others (Cunniff & Mostert, 2012; De Vos & Kirsten, 2015; Zapf et al., 2003). This too may be seen within the South African context as despite limited research being conducted, WPB amongst teachers is considered widespread, with 90% of educators reporting that they have been exposed to a variety of negative acts (De Wet & Jacobs, 2013). Such bullying events may be carried out by other colleagues, school principals (De Vos & Kirsten, 2015) or even learners themselves (De Wet, 2010; Woudstra et al., 2018). As negative psychological, social, and physical health effects may ensue, such as increased absenteeism as well as presenteeism, this may result in detrimental impairments overall to the running of the school and the smooth rollout of teaching. In many instances, teachers have also been found to leave not only their jobs at the schools in which the negative behaviour is occurring, but also the profession as a whole. This may further compromise the quality of education received by students, as the services provided by teachers may be hindered due to the effects of WPB (Batchelor, 2019; De Vos & Kirsten, 2015). This is

especially so when experienced teachers leave the profession. With South African education currently being described as a system in crisis (Business Tech, 2022), WPB amongst teachers may further perpetuate the vast number of problems being faced by the sector. Thus, due to the detrimental effects WPB has been found to have, it is important to gain a better understanding of occupation specific bullying, in order to ascertain the right policies and interventions to help alleviate the social problem at hand (Glaso et al., 2011).

As mentioned, WE can become impaired in the event of WPB and impaired WE is associated with a whole host of other negative outcomes, namely increased turnover intentions, decreased organisational commitment, lowered productivity as well as reduced job satisfaction (Coetzee & Van Dyk, 2018; Field & Buitnedach, 2012; Schaufeli & Bakker, 2004a). Consequently, the aim of the present study was to focus on WPB in relation to WE because of the multiplicitious negative associations that impaired WE has with other important outcome variables. Below follows a definition of WE.

1.5 Defining Work Engagement

Following the shift towards focusing on the strengths and virtues of individuals rather than their weaknesses, within Positive Occupation Health Psychology, the concept of WE was put forward (Schaufeli & Bakker, 2004a). Whilst Maslach and Leiter (1997, as cited in Schaufeli & Bakker, 2004a) viewed engagement as the direct opposite of burnout, characterised by "energy, involvement and efficacy" (p. 294), another school of thought emerged, which regarded engagement as its own independent construct. As such, the concept of WE may be described as the "positive fulfilling work-related state of mind that is characterised by vigour, dedication and

absorption" (Schaufeli et al., 2002, p.74). Whilst *vigour* is seen as the persistence and resilience displayed by an individual when facing adverse tasks due to a vested interest in their work, *dedication* refers to an individual's inclination to be strongly involved. *Absorption,* however, is described as being fully immersed within one's work to a point in which time passes swiftly (Schaufeli et al., 2002). Thus, WE may be characterised as a continuous affective-cognitive state, in which no particular attention is paid to specific objects, individuals or events (Schaufeli & Bakker, 2004a).

It may be highly beneficial for businesses to have engaged employees, as positive organisational outcomes are associated (Bakker & Derks, 2010). Firstly, engaged workers are found to perform better in their jobs as they tend to experience more positive emotions as well as maintain an enhanced overall well-being (Bakker & Demerouti, 2008). This many further be seen in teams, whereby highly engaged individuals may transfer their positive experiences to other colleagues. This in turn ultimately boosts the overall performance of the team, as more engaged employees emerge, further creating a better working environment (Bakker & Demerouti, 2008; Coetzee & Van Dyk, 2018). As engaged individuals have a keen interest in the success of the overall business, they may perform outside of their usual duties, which may aid an organisation in reaching their desired goals and outcomes (Bakker & Schaufeli, 2008; Rai & Agarwal, 2017). Additionally, engaged employees tend to be more committed and have lower turnover intentions (Coetzee & Van Dyk, 2018; Field & Buitendach, 2012). According to Harter et al. (2002), greater productivity, profitability as well as customer satisfaction were correlated with higher employee engagement rates. Even when confronted with significant stressors, highly engaged employees are able to cope better with demanding circumstances found within the workplace (Coetzee & Van

Dyk, 2018). Therefore, due to the positive organisational outcomes that result from engaged employees, it is crucial for organisations of all types to develop this positive state of mind as it may give an organisation a competitive advantage (Hoole & Bonnema, 2015).

1.6 Relationship between Workplace Bullying and Work Engagement

Due to the detrimental effects WPB is seen to have, combined with the positive impact WE may have on various businesses, it may be crucial for organisations to examine the relationship between WPB and WE. Despite a limited amount of research conducted on WPB and WE, the relationship between such variables has been established (Coetzee & Van Dyk, 2018; Einarsen et al., 2016; Rodriguez-Munoz et al., 2009). In many studies, this relationship has also often been examined through moderators or mediators. For instance, in the study conducted by Glaso et al. (2011), an occupation-specific approach was undertaken, whereby WE was found to be negatively correlated to WPB amongst bus drivers. Additionally, the study found that WE partially mediated the effect of WPB on turnover intention. This was further confirmed in Coetzee and Van Dyk's (2018) South African study, as WPB was also found to be negatively related to WE, whilst WE was established as mediator in the relationship between WPB and turnover intention. Rai and Agarwal (2017) further highlighted the negative association between WPB and WE and found that in comparison to person-related or physically intimidating bullying, work-related bullying was more strongly related to a reduction in engagement amongst employees. Additionally, another study consisting of a sample of Estonian academics found that only when exposed to a specific form of bullying, being professional undermining, employee engagement was reduced. Thus, the relationship was only partly supported (Merilainen et al., 2019). In a longitudinal study conducted by Rodriguez-Munoz et al. (2009), WPB was found to negatively impact a specific aspect of

engagement, being dedication. Thus, as differing results have been reported, further research is needed.

1.7 Job Demands-Resources Model

The Job Demands-Resources (JD-R) model may be used as a conceptual framework in understanding not only WPB, but engagement too (Baillien et al., 2011; Hakanen et al., 2006; Van den Broeck et al., 2011). The JD-R model assumes that a worker's overall well-being may be influenced by a broad range of job characteristics, which may be found across a wide range of differing occupational groups (Bakker & Demerouti, 2007). Such job characteristics consist of both job demands (JD) and job resources (JR). JD are classified as the aspects of a job that are particularly taxing to an individual, as a sustained physical or psychological effort is required to meet these demands (Bakker & Demerouti, 2007). Examples of JD may include high workload, role conflict or poor working environments amongst others (Field & Buitendach, 2012). If an individual is required to elicit a large amount of effort in order to meet such demands, stress may be encountered as an energy-depleting process may occur. This is known as the health impairment process (Bakker & Demerouti, 2007). JR, however, are features of the job that reduce JD, promote learning and growth as well as assist employees in accomplishing specific work goals. Resources thus may be in the form of social support, (constructive) performance feedback or even career opportunities (Bakker & Demerouti, 2007; Bakker et al., 2014). As such, another process may occur, whereby JR may play either an intrinsic or extrinsic motivational role, which may further lead to positive outcomes such as high WE and even enhanced performance (Bakker & Demerouti, 2007; Rothmann & Jordan, 2006). Thus, high JD may be seen to negatively impact individuals in

terms of their health due to burnout, whilst JR may lead to enhanced well-being amongst other outcomes, such as organisational commitment and engagement (Bakker & Demerouti, 2007).

In addition to this dual process occurring, the JD-R model postulates that JD and JR may interact (Bakker & Demerouti, 2007). If individuals have the appropriate resources at their disposal, the negative health effects pertaining to JD may be reduced as less strain may be encountered, thus highlighting how JR may buffer JD (De Braine & Roodt, 2011; Van den Broeck et al., 2011). Thus, in instances pertaining to highly demanding environments, the positive effects of JR may be better experienced as an individual may be able to cope better with such demands, which may alleviate any possible strain (Bakker & Demerouti, 2007).

Accordingly, the JD-R model may be used to provide a meaningful link between job characteristics and WPB from both the target and perpetrator perspective (Baillien et al., 2011). When an individual is exposed to high demands, an energy depleting process ensues, which may leave an employee feeling exhausted. As a result, employees may feel so drained that they become 'easy targets' to perpetrators, as little resistance against incidents of mistreatment or bullying is provided (Baillien et al., 2011). As low resources may be available to such individuals, they too may feel demotivated and disengaged from their work, which may lead them to violate a range of work-related norms and behaviours. In turn, colleagues may react negatively towards such employees, which may further escalate into WPB (Baillien et al., 2011). Furthermore, from a perpetrator's perspective, work-related strain, derived from poor job characteristics, may be relieved through acts of bullying behaviour (Van den Broeck et al., 2011). Thus, such acts may reflect a perpetrator's way of coping.

However, while this model facilitates the incorporation of an examination of how demands and resources are linked to WPB for both perpetrators and victims, the scope of this study will be limited to the focus on victims only, namely that of teachers as victims of WPB.

1.8 Teachers in the South African Context

The education sector within South Africa has been described as a 'national disaster', which can be reflected in poor learner outcomes, low matric pass rates as well as high grade repetition (De Wet & Jacobs, 2013; Essop & Mansfield, 2022; Field & Buitendach, 2012; My Broadband, 2021). Unfortunately, teachers across the country are facing a variety of challenges. These toxic working environments, comprising high demands and low resources, may often foster acts of WPB, in addition to creating disengaged employees (Ballien et al., 2011; Field & Buitendach, 2012). This may be aligned with the work environment hypothesis, which states that bullying may be attributed to a stressful working environment (Van den Broeck et al., 2011). In a report conducted by Amnesty International (2020), the poor working conditions of teachers within South Africa were highlighted, which included inadequate infrastructure, lack of proper sanitation as well as safety concerns for both teachers and pupils. In addition, many schools are without basic facilities such as libraries or access to computers (West & Meier, 2020). In some instances, learners have not been provided with sufficient learning materials such as basic textbooks or even an appropriate number of desks (McKay et al., 2018). Further challenges are encountered in the classroom, with high teacher-to-learner ratios. When classrooms are overcrowded, it may further impact the quality of education received, as academic performance may suffer (West & Meier, 2020). Overcrowded classrooms may be a source of stress for teachers, as pupils have been found to misbehave in larger classroom settings, which further reduces the amount of active teaching

time as disciplinary action would have to be carried out (Marais, 2016). A further challenge is posed through language differences found in the classroom, as for many students, the language of instruction differs from their own first language (Amnesty International, 2020). McKay et al. (2018) further reported that teachers felt overwhelmed with the amount of work given, due to an abundance of administrative tasks in addition to the high volume of teaching subjects allocated. As a result of the poor working conditions faced, coupled with low remuneration, many teachers are found to be leaving the profession (Pitsoe, 2013). This may further amplify the problems faced in the education sector as reduction of teaching staff means greater workloads are spread amongst the thin number remaining. In addition, these negative conditions cause enormous frustrations amongst teachers and in such a situation, some teachers tend to vent their frustration and anger on vulnerable targets. In many cases, this is often perpetrated by more experienced senior teachers, after encountering questions from junior colleagues (Batchelor, 2019). Thus, very stressful, demanding environments actually foster bullying which is enacted as a result of experienced stress and frustration. This may be entrenched within the Frustration-Aggression hypothesis, which has been modified by many researchers over the years (Breuer & Elson, 2017). Berkowitz (1987, as cited in Breuer & Elson, 2017) proposed that when an individual is frustrated, he/she may be inclined to act in an aggressive way. Thus, as many stressors are currently occurring, teachers may be inherently frustrated with the situation, and act in an aggressive manner towards someone else, thus perpetrating bullying behaviours towards others. As such, it may be highly beneficial for schools to reduce the number of demands faced by teachers, in addition to providing more resources (Baillien et al., 2011) in order to improve environmental conditions to a point where the environment does not encourage and foster bullying.

Based on the above literature a number of research questions emerged. These are outlined below:

Research Questions

i. Is workplace bullying related to work engagement?
    a. Is Workplace Bullying related to vigour?
    b. Is Workplace Bullying related to dedication?
    c. Is Workplace bullying related to absorption?

ii. Are job demands related to workplace bullying?

iii. Are job resources related to workplace bullying?

iv. Do job demands moderate (boost) the relationship between workplace bullying and work engagement?
    a. Do job demands moderate (boost) the relationship between workplace bullying and vigour?
    b. Do job demands moderate (boost) the relationship between workplace bullying and dedication?
    c. Do job demands moderate (boost) the relationship between workplace bullying and absorption?

v. Do job resources moderate (buffer) the relationship between workplace bullying and work engagement?
    a. Do job resources moderate (buffer) the relationship between workplace bullying and vigour?
    b. Do job resources moderate (buffer) the relationship between workplace bullying and dedication?

c. Do job resources moderate (buffer) the relationship between workplace bullying and absorption?

Hypotheses

H_1: Workplace bullying is negatively related to work engagement.

H_2: Job Demands are positively related to workplace bullying.

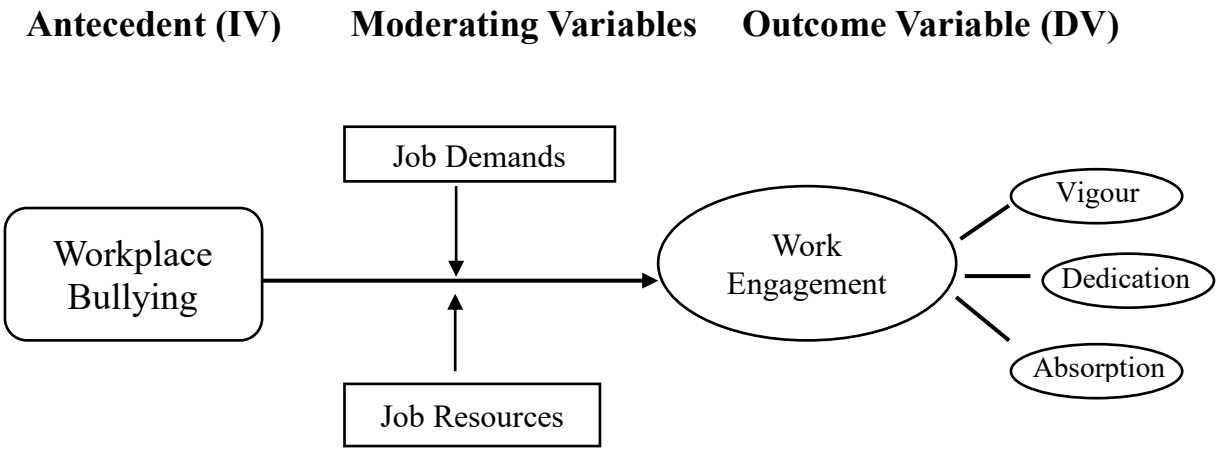
H_3: Job Resources are negatively related to workplace bullying.

H_4: Job Demands moderate (boost) the relationship between workplace bullying and work engagement.

H_5: Job Resources moderate (buffer) the relationship between workplace bullying and work engagement.

Figure 1.1

Predicted relationship between Workplace Bullying, the JDR model and Work Engagement



Chapter 2: Methods

2.1 Introduction

The following chapter gives an overview of the methodology used within the current study. Firstly, the research design is outlined, followed by an explanation of both the sample and sampling procedure. The instruments used within the study are then discussed, as well as the overall procedure that was followed when collecting the data. Subsequently, the techniques used to analyse the data are then explored. The chapter concludes with a discussion of specific ethical considerations that were accounted for in the original study.

2.2 Research Design

It is important to note that this research is based on secondary data, that is, quantitative data collected in 2018. At the time, a quantitative, non-experimental, descriptive research design was employed within the original study. As no manipulation of the IV occurred, as well as the absence of both control groups and random assignment, a non-experimental design was utilised (Walliman, 2011). In addition, a descriptive and correlational research design was appropriate as the study was interested in describing the relationship between the variables of WPB, WE, JD, and JR. As the secondary data was collected from participants at only one point in time, a cross-sectional design was employed (Salkind, 2012).

Due to the very nature of the research design, as covariation, non-spuriousness and temporal precedence features are not present, causality may not be established (Neuman, 2014). As a result, no causal conclusion from the results may be drawn. Additionally, certain threats to the internal

validity of the study may exist, such as response bias. Despite these limitations, the overall design was relatively flexible and easy to implement.

2.3 Sample and Sampling Procedure

Within the original study, the sample consisted of teachers who were working in various different schools across Johannesburg, Gauteng.

A non-probability, purposive sampling technique was utilised in the original study. As the entire teaching population cannot be accessed, and all teachers did not have an equal opportunity to participate within the original research, the strategy used was seen as appropriate (Walliman, 2011). Considering the topic at hand, in order for valuable information to be contributed to the study, participants with certain characteristics were pursued. By using this particular approach, being purposive sampling, the specific research questions could be answered (Laher & Botha, 2012). Additionally, as only individuals who were both willing and able contributed to the study, participants can be further classified as volunteers. 186 teachers across 14 schools in various quintiles within Johannesburg, Gauteng participated in the original study, however, after cleaning the data, the final sample in the present study consisted of 158 participants.

Within the sample, a large percentage of participants were between the ages of 41-50 (25.9%), closely followed by teachers aged 51-60 (24.7%), aged 21-30 (21.5%), aged 31-40 (20.9%) and aged 61 and above (4.4%). In terms of race, 32.9% of the sample identified as Indian, followed by Coloured (28.5%), Black (23.4%), and White (7.6%) employees. The majority of sampled teachers indicated that English (55.7%) was their home language, whilst Afrikaans (19%)

followed second. Other home languages included Zulu (8.9%), Sotho (6.3%), Other (2.5%), Tsonga (1.9%), Setswana (1.3%), Xhosa (1.3%) and Venda (0.6%). In terms of education, the majority of the sample held a degree/advanced diploma (47.5%), followed by a Diploma (23.4%), a Honours/Post-graduate diploma (16.5%), a Master's degree (5.1%), a technical trade (3.2%) and a Doctoral degree (0.6%). Further, 50.6% of the participants were married, whilst 28% of the sample were single, and 12.2% were divorced. The school quintile the teachers belonged to varied, with majority belonging to Quintile 5 (47.8%), 23.9% belonging to a Quintile 1 school, 23.1% belonging to a Quintile 4 school, 2.2% belonging to a Quintile 2 school, and 1.5% belonging to a Quintile 3 school. In terms of rankings, as quintiles indicate a 'poverty score', schools in affluent communities form part of Quintile 5, whilst poorer schools are represented in the Quintile 1 category (Van Dyke & White, 2019). This demographic information is further represented in the table below (see Table 2.1).

Table 2.1

Demographic Information of the Sample

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
Race	Black	37	23.4

	Indian	52	32.9
	Coloured	45	28.5
	White	12	7.6
	Missing	12	7.6
Language	English	88	55.7
	Zulu	14	8.9
	Sotho	10	6.3
	Setswana	2	1.3
	Tsonga	3	1.9
	Afrikaans	30	19
	Venda	1	0.6
	Xhosa	2	1.3
	Other	4	2.5
	Missing	4	2.5
Marital status	Married	78	49.4
	Single	41	25.9
	Divorced	17	10.8
Level of education	Technical trade	5	3.2
	Diploma	37	23.4
	Degree/advanced diploma	75	47.5
	Honours/postgraduate diploma	26	16.5
	Masters	8	5.1
	Doctorate	1	0.6

	Missing	6	3.8
Quintile	Quintile 1	31	19.6
	Quintile 2	2	1.3
	Quintile 3	1	0.6
	Quintile 4	29	18.4
	Quintile 5	60	38
	Missing	35	22.2

2.4 Procedure of Data Gathering

2.4.1. Measures

As data was pre-collected, questions relating to biographical information, WPB, WE, JD, and JR were selected. This resulted in a questionnaire containing four sections, totalling 91 questions (see Appendix A).

2.4.1.1 Biographical questionnaire. Firstly, in order to better understand and describe the sample obtained, seven demographic questions regarding race, marital status, home language, level of education, age and school quintile category were included. The survey then consisted of the following instruments to assess the variables of interest.

2.4.1.2 Job Demands-Resources Scale (JDRS). The JDRS consists of 48 items, which measures both JD and JR (Jackson & Rothmann, 2005). Initially, within the South African context, the JDRS has been modified to include only 45 items, comprising 5 factors, being organisational support, growth opportunities, job security, overload as well as advancement (Rothmann et al.,

2006). Whilst organisational support, growth opportunities, job security and advancement relate to JR, the factor of overload related to JD. Examples of items include “Do you have too much work to do?”, and “If necessary, can you ask your colleagues for help?” (Rothmann et al., 2006). However, the current study utilised a two-factor structure, being JD and JR, which consisted of 37 items in total (Solomon, 2021). As this structure was validated in the South African context through an Exploratory Factor Analysis, it was deemed appropriate to use in the current study (Solomon, 2021). The scores are measured on a four-point Likert-type scale, ranging from (1) never to (4) always. Based on the 45 items, the lowest possible score for the scale would be 45, whilst the highest possible score would be 180. However, based off 37 items which the current study utilised, the lowest possible score would be 37, whilst the highest possible score would be 148. The wording within the scale was changed to suit the context of the study, as ‘company’ was replaced with ‘school’. Furthermore, the JDRS may be seen as a reliable scale in the South African context, as alpha coefficients between 0.76 and 0.92 were reported, indicating satisfactory internal consistency (Rothmann et al., 2006). Additionally, as both face validity and construct validity (through the use of Exploratory Factor Analysis) were established, the scale may be seen as valid (Rothmann et al., 2006: Solomon, 2021). Within the present study, totals for JD and JR was used to explore their moderating role.

2.4.1.3 Utrecht Work Engagement Scale (UWES). To measure WE amongst teachers, the UWES was utilised (Schaufeli & Bakker, 2004b). The scale measures the three characteristic elements of WE, being vigour (6 items), dedication (5 items) and absorption (6 items), totalling 17 items (Schaufeli & Bakker, 2004b). The scores are measured on a seven-point Likert-type scale, which ranges from (0) never to (6) every day. Both subscale and total scores may be obtained, with

higher scores indicating higher WE. Examples of items include “I am enthusiastic about my job” and “I am immersed in my work” (Schaufeli & Bakker, 2004b). Additionally, the total UWES was found to have excellent internal consistency as Cronbach Alpha coefficients between 0.91 and 0.96 were reported (Schaufeli & Bakker, 2004b). Research has further confirmed the validity of a three-factor model in the South African context, in addition to reporting satisfactory Cronbach Alphas for all three subscales, namely vigour (α=0.80), dedication (α=0.87) and absorption (α=0.69) (Coetzer & Rothmann, 2007). Thus, the UWES is considered as both valid and reliable. Within the current study, the three subscales were used independently.

2.4.1.4 Negative Acts Questionnaire – Revised (NAQ-R). The NAQ-R is a 22-item scale, which measures workplace bullying. Within the scale, three broad categories of workplace bullying can be identified, namely, work-related bullying, physically intimidating bullying as well as person-related bullying (Einarsen et al., 2009). Again, the items are scored on a five-point Likert-type scale, ranging from (1) never to (5) daily. Thus, higher scores would indicate greater exposure to WPB. Participants are required to answer how often they experience each item, such as “Being ordered to do work below your level of competence” in addition to “Persistent criticisms of your errors or mistakes” amongst others (Einarsen et al., 2009). Within the present study, a single overall score was used. Furthermore, the NAQ-R demonstrates excellent internal consistency, as Cronbach alpha coefficients of 0.90 have been reported, suggesting a reliable scale (Einarsen et al., 2009). This has further been confirmed in the South African context, as previous research has reported excellent Cronbach Alpha coefficients of 0.95 (Nel, 2019). Additionally, construct validity of the scale has been established (Einarsen et al., 2009).

2.4.2 Procedure

Within the original study, the following procedure was adhered to. Initially, the original researcher contacted various principals from different schools within the Gauteng Province, in order to obtain permission to access their schools. In addition, approval was obtained from the Gauteng Department of Education (GDE) (see Appendix B). Once approval was attained, the original researcher further acquired clearance to conduct the study from the University of the Witwatersrand Ethics Committee (HREC)-Non-Medical (see Appendix C). Through the use of a participant information sheet (PIS) (see Appendix D and E for the PIS's for principals and teachers/participants), information regarding the purpose and details of the study were specified. The original researcher stated that the survey would be conducted either online, or through the use of pen-and paper questionnaires. The survey was estimated to take a total completion time of 30 minutes. In order to collect the hard-copy surveys, a sealed-box, that only the original researcher had access to, was placed in a private location within the various school grounds. If access was granted by the principal, hard copies of the survey in addition to another participation information sheet (specifically for participants) were distributed amongst teachers (see Appendix E). These PIS's also contained information regarding the purpose and details of the study and all ethical considerations, namely voluntary participation, right to withdraw, informed consent, anonymity and confidentiality and protocols were put in place to ensure protection from harm. A secure encrypted link was also provided on the PIS to access the online survey, which used the platform known as SurveyMonkey. Additionally, contacts details of both the original researcher and researcher's supervisor as well as the University's Ethics office were offered. Teachers were allowed a period of one month to complete either the online or pen-and-paper questionnaire.

2.5 Data Analysis

After receiving the data on an excel spreadsheet, it was cleaned and checked for any errors. The pre-collected data was then analysed using Statistical Package for the Social Sciences (SPSS) Version 27. Mean substitutions were conducted to replace any missing data. Descriptive statistics in addition to validity and reliability analyses were performed on all scales. Pearson's Correlation Coefficients and a Moderated Multiple Regression were conducted to test the hypotheses of the present study.

2.5.1 Descriptive Statistics

Firstly, descriptive statistics were used to summarise and describe the pre-collected data in a more understandable way (Salkind, 2012). Frequencies means ($\bar{x}$), standard deviations (SD), and minimum and maximum scores were performed on each aforementioned instrument.

In addition, to determine whether parametric or non-parametric tests were to be used, the assumption of normality was tested (Field, 2009). In order to assess whether normality is violated or not, skewness and kurtosis coefficients, Kolmogorov-Smirnov and Shapiro-Wilks tests as well as histograms were used. Ideally, skewness and kurtosis coefficients should be in the range of -1 and 1, whilst a non-significant result (p value > α) stemming from Kolmogorov-Smirnov and Shapiro-Wilks tests would indicate that normality assumptions have not been violated (Field, 2009). It should however be noted that such formal tests (Kolmogorov-Smirnov and Shapiro-Wilks) may be oversensitive at times and should not be solely relied upon. Additionally, by virtue of the sample size obtained (n=158), the conditions for Central Limit Theorem have been met, further indicating normality (Field, 2009).

2.5.2 Validity and Reliability Analysis

In order to ensure the quality of the research study, the instruments used must be regarded as reliable and valid. To determine the internal consistency of each scale, Cronbach Alpha coefficients were determined. Such values should ideally be above 0.7 (Rosnow & Rosenthal, 2008). To further check the reliability of the scales, item-total correlations were considered to ensure that there were no candidate items for deletion. Lastly, the construct validity of both the Utrecht Work Engagement Scale and the Job Demand-Resources Scale were established through previous Exploratory Factor Analyses conducted within the South African context (Coetzer & Rothmann, 2007; Solomon, 2021), confirming the underlying structure of each scale (Field, 2009).

2.5.3 Pearson's Correlation Coefficients

As parametric assumptions were met (see section 3.5.1), Pearson's r-correlations were used to measure the direction and strength of the relationships between WPB, WE, JD, and JR (Salkind, 2012). The strength of the relationship may be determined through the value of the correlation, with values closer to -1 and 1 indicating a stronger relationship, whilst values closer 0 denoting a weaker relationship. Additionally, the direction of the relationship is dependent on whether a positive or negative value is obtained (Salkind, 2012).

In order to conduct this analysis, the following assumptions needed to be met (Laerd Statistics, 2018a):

i. The dependent variable must be measured at least on an interval scale.
ii. Data must be normally distributed.
iii. There must be random, independent sampling.

iv. There must be no outliers in the data.

v. There must be a linear relationship between variables.

vi. There must be homogeneity of variance.

vii. The sample size must be adequate.

2.5.4 Moderated Multiple Regression (MMR)

MMR is a statistical technique used to determine whether a moderator variable influences a relationship between a predictor and outcome. Thus, a moderator variable is one that may alter the strength or direction of a first-order relationship (Aguinis & Gottfredson, 2010; Rosnow & Rosenthal, 2008). Within this statistical technique, both the main effect and interaction may be tested. Thus, MMR was used to determine whether the WPB, JD, and JR have direct effects on the three WE variables/sub-scales and to test whether the relationship between WPB and WE is moderated by JR and JD.

In order to conduct MMR, the following assumptions needed to be met (Laerd Statistics, 2018b):

i. The biographical variables are not related to the dependent variables.

ii. The dependent variables are measured at least on an interval scale.

iii. The relationships between the independent and dependent variables are linear.

iv. There are no significant outliers.

v. No measurement error exists.

vi. There is an absence of multicollinearity.

vii. The data is normally distributed.

viii. There is homogeneity of variance.

ix. There is random selection of the sample from the population.

2.6 Ethical Considerations

In order to use the pre-collected data within the present study, permission from both the original researcher as well as the researcher's supervisor was obtained. A letter from both individuals has been provided (see Appendix F). Additionally, as participants consented to their data being used in future analyses, the usage of data in this study does not violate any ethical parameters.

Within the original study, ethical clearance was granted by the University of the Witwatersrand Ethics Committee (HREC)-Non-Medical (see Appendix C). However, approval to use the pre-existing data within this present study was still requested from the HREC-Non-Medical (See current HREC Ethics Clearance Certificate Appendix G). Furthermore, the Gauteng Department of Education has already approved the data collection (see Appendix B), thus allowing the current researcher to use the current data.

As mentioned, PIS were distributed to both teachers and principals of the participating schools. Within the PIS, the original researcher stipulated that participation was completely voluntary, and further highlighted that no person would be disadvantaged in any way if he/she did not want to partake within the research. Additionally, the PIS stated that teachers were able to withdraw from the study at any point time before submitting the survey (Salkind, 2012). Once an individual submitted the questionnaire, either online or through the private box provided, informed

consent was deemed to have been given. Contact details of both the researcher and researcher's supervisor were also provided, as well as the University's Ethics office.

Furthermore, the principle of confidentiality and anonymity were met, and participants were informed of this in the PIS (Salkind, 2012). As no identifying information was requested in the survey, the participants' identities remained anonymous. While the completion of online surveys did reveal the participant's IP address, once the researcher downloaded the data, all IP addresses were deleted. To further ensure the privacy of participants, all data was securely stored on a password-protected computer, with only the original researcher and researcher's supervisor having access to it. For purposes of this research study, the provided data have been stored under the same conditions. Reporting of findings will only be in the form of general group trends, making it impossible for particular participants to be identified.

As WPB may be regarded as a sensitive subject, all participants were given access to free counselling through the University's Emthonjeni Centre if any distress was felt after completing the questionnaire. However, none of the participants requested or used this service. Additionally, the study was not expected to elicit any harm towards participants. Thus, the principle of non-maleficence was adhered to (Rosnow & Rosenthal, 2008). Thus, various ethical principles were considered in the original study and as such apply to the current research.

Chapter 3: Results

3.1 Introduction

The following chapter presents a comprehensive overview of the statistical results obtained from the various analyses that were undertaken, with regards to the pre-collected data used within the current study. Firstly, descriptive statistics of each variable, including means, standard deviation, minimum and maximum scores are outlined. Following this, both normality indicators as well as internal consistency reliabilities are presented. In addition, Pearson Correlation coefficients as well as Multiple Moderated Regression results are shown. To conclude, a summary of the results is provided.

3.2 Descriptive Statistics

Descriptive statistics were used to analyse each scale and subscale, as well as to establish normality (see Table 3.1).

Table 3.1

Means, Standard Deviations and Skewness and Kurtosis

Variable	*N*	*Mean*	*SD*	Min	Max	Skewness	Kurtosis
WPB	158	50.9184	19.25921	23.00	106.51	.632	-.632
WE	158	69.4788	15.96111	18.00	99.00	-.314	-.071
VI	158	23.6879	5.96409	4.00	35.00	-.292	.019
DE	158	21.3309	5.34184	9.00	30.00	-.154	-.928

ABS	158	24.4601	6.04956	9.00	36.00	-.331	.256
JD	158	28.0663	4.51533	13.00	36.00	-.477	-.001
JR	158	79.0013	16.09181	45.00	112.00	-.057	-.856

3.2.1 Negative Acts Questionnaire-Revised (NAQ-R)

In terms of the NAQ-R, which measures the variable WPB, the minimum and maximum possible score of the scale is 23 and 115 respectively. Within the current study, moderate levels of bullying were reported by the participants (M = 50.92; SD = 19.26), with a minimum score of 23 and a maximum score of 106 observed.

3.2.2 Utrecht Work Engagement Scale (UWES)

WE, as measured by the UWES, comprises both total and subscale scores. While a minimum of 0 and maximum of 102 can be obtained for the total score, within the current study, a minimum score of 18 and a maximum score of 99 was reported. Accordingly, participants were found to experience moderately high levels of WE (M = 69.48; SD = 15.96). As the UWES comprises three subscales with varying number of items, each subscale is scored accordingly. In terms of the vigour subscale, which consists of 6 items, a minimum score of 0 and maximum score of 36 can be obtained. In the current study, teachers experienced moderate levels of vigour (M = 23.69; SD = 5.96), with minimum scores of 4 and maximum scores of 35 observed. The dedication subscale contains 5 items, with possible minimum scores of 0 and maximum scores of 30 respectively. Similar to the previous subscale, moderate levels of dedication were reported by the teachers (M = 21.33; SD = 5.34), with minimum scores of 9 and maximum scores of 30 observed. The final subscale, absorption, is made up of 6 items. As such, the minimum possible score is 0 and the

maximum possible score is 36. Within the study, levels of absorption were moderately high for teachers (*M* = 24.46; *SD* = 6.05) with minimum scores of 5 and maximum scores of 36 reported.

3.2.3 Job Demands-Resources Scale (JDRS)

JD and JR were measured using subscales derived from the JDRS. Due to the Exploratory Factor Analysis conducted by Solomon (2021), the respective subscale items were reduced accordingly. In terms of the reduced JD subscale, which consists of 9 items, possible minimum scores of 9 and maximum scores of 36 could be obtained. Within the sample, slightly high levels of JD were reported by teachers (*M* = 28.07; *SD* = 4.52), with minimum scores of 13 and maximum scores of 36 being reported. The reduced JR scale is made up of 28 items, with possible minimum scores of 28 and maximum scores of 112 respectively. In the current study, teachers experienced moderate levels of JR (*M* = 79.00; *SD* = 16.09), with minimum scores of 45 and maximum scores of 112 observed.

3.3 Normality

3.3.1 Skewness and Kurtosis

In order to assess the normality of the data, skewness and kurtosis coefficients of the scales and subscales were analysed. As all skewness coefficients fell between the acceptable range of - 1 and + 1, and kurtosis coefficients between + 3 and - 3, being WPB (*SK* = .63; *K* = -.63),WE (*SK* = -.31; *K* = -.07), VI (*SK* = -.29; *K*= .02), DE (*SK* = -.15; *K* = -.93) AB (*SK* = -.33; *K* = .26), JD (*SK* = -.48; *K* = -.00), JR (*SK* = -.06; *K* = -.86), parametric tests were deemed appropriate to use as the data was considered to be normally distributed (Field, 2009). This was further supported

through the use of histograms (see Appendix H), as each distribution was found to approach normality as minimal deviation was observed.

3.3.2 Central Limit Theorem

Although the shape of the distributions curves did not deviate substantially from normality, to further confirm whether parametric analyses could be undertaken, Central Limit Theorem (CLT) was taken into consideration. According to CLT, if the sample size of a particular study exceeds 30 participants, normality can be assumed (Field, 2009). By virtue of the sample size obtained within this current study (n = 158), the conditions for CLT have been met. Therefore, despite the shape of the distribution curves (Appendix H) having slight deviation, considering the skewness and kurtosis coefficients, in addition to Central Limit Theorem being sufficiently met, normality could be established.

3.4 Internal Consistency Reliability Analysis

In order to determine the internal consistency of the JDRS, NAQR and UWES scales and subscales, reliability analyses were conducted. As noted in the methods chapter, Cronbach Alpha Coefficients exceeding the level of .7 indicate satisfactory reliability (Rosnow & Rosenthal, 2008). All scales and subscales demonstrated high to very high internal consistency and were thus considered reliable to use in the current study (see Table 3.2).

Table 3.2

Internal Consistency Reliabilities

Scale	No. of items	Cronbach's Alpha
JDRS	37	.915
JD	9	.809
JR	28	.949
NAQR	23	.966
UWES	17	.924
VI	6	.837
DE	5	.807
AB	6	.799

3.5 Pearson Correlation Coefficients

Pearson Correlation Coefficients were undertaken to establish the nature of the relationship between the following variables, being WPB, WE (including vigour, dedication, and absorption), JD and JR. Before analysis took place, various assumptions were tested.

3.5.1 Testing for Assumptions

All assumptions for Pearson Correlation Coefficients were met, and thus the test was deemed appropriate to use. All variables were measured on an interval scale, and random independent sampling took place. Additionally, as aforementioned in section 3.3, the data was considered to be normally distributed. With 158 participants partaking in the study, an adequate sample size was established. Further, using Tuckey's method of determining outliers, as seen below, no significant

outliers were present within the current study. Lastly, both the assumptions of linearity as well as homogeneity of variance were met, through inspecting standardised residual scatterplots (see Appendix H).

3.5.1.1 Tuckey's (1977) method of determining outliers. According to Tuckey (1977), it is possible to establish whether outliers are present in the data through the use of upper and lower bound limits. As these limits determine acceptable minimum and maximum values, any values outside of this specified range would be considered an outlier.

The following formula was used:

$IQR = Q_3 - Q_1$

$g = IQR \times 1.5$

For the lower bound values: $Q_1 - g$

For the upper bound values: $Q_3 + g$

Using Tuckey's formula as a basis, no outliers were observed for any of the variables within the present study. This was determined manually, as all minimum and maximum total scores reported fell within the range of the lower and upper bound limits (see Table 3.3). Therefore, the assumption was subsequently met.

Table 3.3

Upper and Lower Bound Limits

Variable	Q1	Q3	IQR	G	Lower	Upper
WPB	35.75	67.39	31.64	47.46	-11.71	114.84
WE	56.00	81.15	25.15	37.73	18.28	118.88
VI	20.00	28.00	8.00	12.00	8.00	40.00
DE	17.00	26.00	9.00	13.50	3.50	39.50
ABS	20.00	28.00	8.00	12.00	8.00	40.00
JD	21.00	28.00	7.00	10.50	10.50	38.50
JR	65.75	92.00	26.25	39.38	26.38	131.38

3.5.2 Correlation Coefficients

3.4.2.1 Correlation between WPB and WE. As previously mentioned, higher scores on both the NAQR and UWES scales would indicate that higher levels of WPB and WE were experienced. As seen in Table 3.4, the results indicated that WE (r = -.42*;* p < .001) was significantly, negatively, and moderately associated to WPB. This suggests that higher levels of WPB were associated with lower levels of WE. Further, when looking the subscales of the UWES scale, Vigour (*r* = -.33*; p* < .001*)* was also significantly, negatively, and moderately related to WPB. This suggests that higher levels of exposure to WPB are related to lower levels of vigour. Similarly, Table 3.4, revealed that there was a significant, negative, and moderate association between WPB and Dedication (*r* = -.47*, p* < .001*).* These results imply that higher levels of WPB are associated with lower levels of Dedication. Further, Absorption (*r*= -.36*, p* < .001*)* was also

significantly, moderately, and negatively related to WPB, indicating that an increase in exposure to WPB is associated with lower levels of absorption.

3.5.2.1 Correlation between WPB and Job Demands and Job Resources. In terms of the JDRS scale, as previously mentioned, higher scores for both the JD and JR subscale indicate that higher job characteristics (JD and JR) are experienced. The results in Table 3.4 indicated that JD (r = .44*;* p < .001*)* was significantly, moderately, and positively related to WPB. This suggests that as levels of JD increase, higher levels of WPB are experienced. However, a significant, negative, and relatively strong association between WPB and JR (r = -.59; p < .001) was reported. These results indicate that lower levels of JR are associated with experiencing higher levels of WPB.

Table 3.4

Correlation Coefficients

	WPB	WE	VI	DE	AB	JD	JR
Independent Variable							
1. Workplace Bullying	---	-.413**	-328**	-.465**	-.356**	.443**	-.586**
Dependent Variable							
1. Work Engagement	-.413**	---	---	---	---	-.191*	.504**
2. Vigour	-.328**	---	---	.765**	.780**	-.236**	.489**
3. Dedication	-.465**	---	.765**	---	.759**	-.225**	.481**
4. Absorption	-.356**	---	.780**	.759**	---	-.073	.442**
Moderator Variable							

1. Job Demands	.443**	-.191*	-.236**	-.225**	-.073	---	-.157*
2. Job Resources	-.586**	.504**	.489**	.481**	.442**	-.157*	---

** Correlation is significant at the 0.05 level*

***Correlation is significant at the 0.01 level*

3.6 Moderated Multiple Regression (MMR)

Moderated Multiple Regression was performed in order to determine whether job characteristics, being JD and JR, moderated the relationship between WPB and WE (including vigour, dedication, and absorption). Initially, Haye's (2013) Process Model 2 was used to conduct the analysis. However, once the results were analysed, JD was not found to moderate the relationship between WPB and WE or any of WE's subcomponents (being vigour, dedication, and absorption). Therefore, in order to disentangle the moderation effects present, simple moderation was then conducted using Hayes (2013) Process Model 1. Within this model, only one moderator variable (JR) was included. Before any analyses were conducted, assumptions were first checked.

3.6.1 Assumptions of MMR

To use MMR within the present study, certain assumptions needed to be met and thus were checked accordingly. All variables were measured on an interval scale, and random independent sampling took place. In addition, the data was considered normally distributed (as outlined in section 3.3), and the assumption of linearity was further met. Homoscedasticity (homogeneity of variance) was also established through the use of residual scatterplots (see Appendix H). Although prior assumption checks revealed that no outliers were present (section 3.5.1.1), supplementary

analyses needed to be conducted to ensure all conditions were met. Additionally, the absence of multicollinearity needed to be further tested.

3.6.1.1 Absence of Outliers. In order to determine whether any influential points or outliers were present in the study, various statistical measures were considered. If any outliers are present within a dataset, the accuracy as well as the significance of the results obtained from the regression analysis may be impacted (Laerd Statistics, 2018b). As such, potential problematic cases were removed from the analysis accordingly. Firstly, Cook's Distance, which measures the influence a single case has on the regression model, was investigated. Values greater than 1 may be indicative of influential points within the dataset (Field, 2009). As all Cook's Distance values within the current study were well below the threshold, this condition was subsequently met. Further, Leverage Statistics were also inspected. This specific measure estimates the influence the outcome variable has over the predictor values (Field, 2009). Crucial values are identified using the following formula, $\frac{(k+1)}{n} \times 3$, whereby k is the number of predictors within the model and n is the number of participants in the study (Field, 2009). Values greater than the cut-off derived from the formula suggest possible cases of concern. Finally, Mahalanobis Distance, which measures the distance of cases from the mean of the predictor variables, was reviewed. The number of predictor variables as well as the sample size determines critical values, which distinguish specific cut-off values (Field, 2009). Using Barnett and Lewis (1984) table of critical values, for this particular study, the critical value was identified as 18,47 (Solomon, 2021). Any cases above the specified level were removed.

3.6.1.2 Absence of Multicollinearity. Within Moderated Multiple Regression, as there is more than one predictor variable, it is important to ensure that an absence of multicollinearity exists (Field, 2009). If the predictor variables within a study are too highly correlated with one another, known as multicollinearity, it may be harder to determine which predicator variable accounts for the variance explained in the outcome variable (Laerd Statistics, 2018b). There are varying methods that can be used to determine whether multicollinearity is present or not. Firstly, the correlation coefficients between the predictor variables need to be investigated. If the correlation co-efficient is greater than .7, multicollinearity is present (Field, 2009). As noted in Table 3.4, JD (r = .44*;* p < .01) was significantly and positively related to WPB, while JR (r = -.59; p < .001) was significantly and negatively to WPB. As the correlation coefficients are well below the stipulated threshold, according to this method, there is an absence of multicollinearity. Other measures of identifying multicollinearity within a data set is through both Tolerance as well as Variance Inflation Factor (VIF) values. Accordingly, if Tolerance values below .2 are reported, multicollinearity within the study is likely to be of concern (Menard, 1995, as cited in Fields, 2009). On the other hand, acceptable VIF values should not exceed 10 (Myers, 1990, as cited in Fields, 2009). Within the present study, as shown in Table 3.5, all Tolerance values were below the threshold of 10, and all VIF values were greater than .2. As a result, the assumption of absence of multicollinearity was met.

Table 3.5

Collinearity Statistics

	Tolerance	VIF
WPB	.5	2.002
JD	.752	1.329
JR	.627	1.595

Once the assumptions for MMR were met the Moderated Multiple Regressions were conducted. The results thereof are tabled below.

3.6.2 Moderated Multiple Regression: Work Engagement as the Outcome Variable

3.6.2.1 Job Demands and Job Resources as moderator. Moderated Multiple Regression was performed to determine whether JR and JD moderated the relationship between WPB and WE. As seen in Table 3.6, significant moderation was demonstrated. Additionally, significant main effects were reported for JR (b = .63, t(5,151) = -.68, p = <.001, indicating that JR significantly predicted WE. Accordingly, JR was found to moderate the relationship between WPB and WE (F (1,151) = 9.30, p = .003, ΔR^2 = .04), accounting for a small change (4,2%) in variance of WE. The results further indicated that JD did not moderate the relationship between WPB and WE (b = -.15, t(5,151) = -.68, p = .496). Additionally, JD was not found to predict WE (b = -.11, t(5,151)= -.64, p = .521). However, the addition of both interaction effects (WPB x JD and WPB x JR) were significant (F(2,151) = 4.67, p = .011, ΔR^2 = .04), accounting for 4.22% of variance in WE.

Table 3.6

Moderated Multiple Regression: Work Engagement as the outcome variable

	B	*SE B*	*t*	*p*
Constant	3.983	.082	48.794	.000
WPB	-.219	.114	-1.918	.057
JD	-.105	.164	-.643	.521
WPB x JD	-.149	.218	-.683	.496
JR	**.634**	**.141**	**4.503**	**.000**
WPB x JR	**-.445**	**.146**	**-3.050**	**.003**

3.6.2.2 Job Resources as moderator (WPB x WE). Simple Moderated Multiple Regression was performed to determine whether JR moderated the relationship between WPB and WE. As seen in Table 3.7, significant moderation occurred. As moderation was demonstrated in this model, no main effects will be interpreted. Accordingly, JR was found to moderate the relationship between WPB and WE (F (1,153) = 9.21, p = .003, ΔR^2 = .04), accounting for a small change (4,1%) in variance of WE. This further suggests that at differing levels of resources, the relationship between WPB and WE changes.

Table 3.7

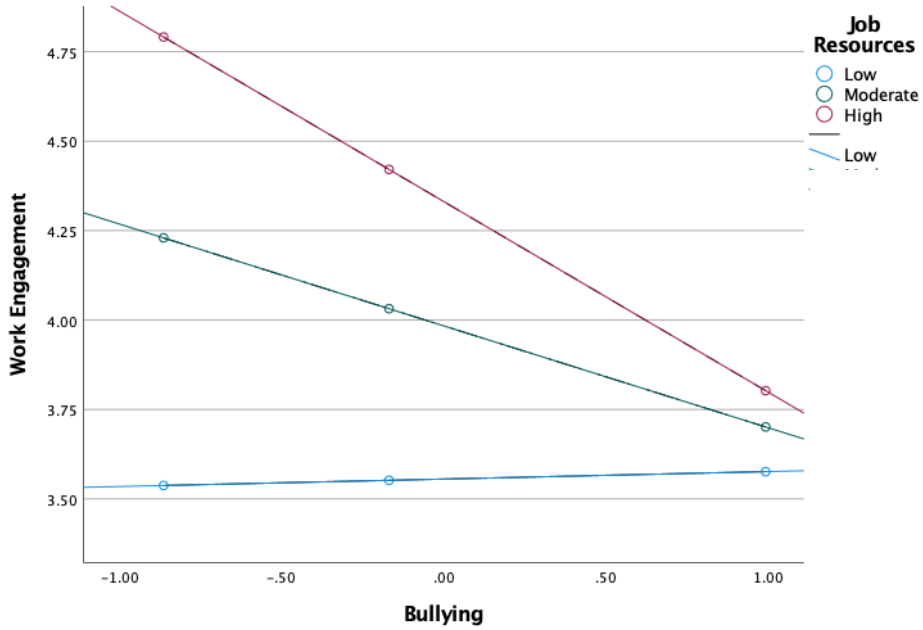
Simple Moderated Multiple Regression: Work Engagement as the Outcome Variable

	B	*SE B*	*t*	*p*
Constant	3.959	.075	53.055	.000
WPB	-.267	.095	-2.812	.056
JR	.608	.136	4.461	.000
WPB x JR	**-.434**	**.143**	**-3.034**	**.003**

3.6.2.2.1 Simple Slopes Analysis (WPB x WE). As moderation occurred within this model, further interpretation of the interaction effect is needed. Through the use of simple slopes analysis, the nature of the interaction was explored. As seen in Figure 3.1, as JR increase, the relationship between WPB and WE was boosted. At high levels of JR, the relationship between WPB and WE is strengthened, indicating that at higher levels of resources, an increase in WPB is associated with lower levels of WE. Further, it can be seen that WPB has a weak to moderate effect on WE at moderate levels of resources. Interestingly, at low levels of resources, the conditional effects are not significant, indicating that relationship between WPB and WE is not affected. While moderation did occur, the results were contrary to what was hypothesised, as a boosting rather than buffering effect was reported. Instead of JR ameliorating the effect WPB has on WE, when moderate to high resources were present, the impact of WPB on WE is exacerbated. Therefore, Hypothesis V is not supported.

Figure 3.1

Simple Slopes analysis for the moderation of JR on WPB and WE



In the next sections the role of JD and JR were further sub-analysed as moderators on the subscales of WE.

3.6.3 Moderated Multiple Regression: Vigour as the outcome variable

3.6.3.1 Job Demands and Job Resources as moderator (WPB x VIG). Moderated Multiple Regression was undertaken to establish whether JD and JR moderated the relationship between WPB and vigour. According to the results obtained, both significant main effects as well as significant moderation occurred within this model. As seen in Table 3.8, the relationship between WPB and vigour was moderated by JR ($F(1,151) = 6.93$, $p = .009$, $\Delta R^2 = .03$), which accounted for 3.26% of variance in vigour. Although the interaction of WPB x JD was insignificant ($b = -.231$, $t(5,151) = -.98$, $p = .327$), significant main effects were reported, as both JD (b = -

.35*, t(*5,151*)* = -2.01, *p* = .046*)* as well as JR *(b* = -.80*, t(*5,151*)= 5.3, p* = <001*)* was found to predict vigour. Again, the addition of both interaction effects (WPB x JD and WPB x JR) were significant $F(2,151) = 3.62$, $p = .029$, $\Delta R^2 = .03$), accounting for 3.4% of variance in WE.

Table 3.8

Moderated Multiple Regression: Vigour as the Outcome Variable

	B	*SE B*	*t*	*p*
Constant	3.864	.088	44.039	.000
WPB	-.005	.123	-.040	.968
JD	**-.354**	**.176**	**-2.012**	**.046**
WPB x JD	-.231	.235	-.983	.327
JR	**.802**	**.151**	**5.297**	**.000**
WPB x JR	**-.413**	**.157**	**-2.633**	**.009**

3.6.3.2 Job Resources as moderator (WPB x VIG). Following the Complex Moderation analysis above, Simple Moderated Multiple Regression was performed to determine whether JR moderated the relationship between WPB and vigour. As moderation was demonstrated within this model, no main effects will be explored. According to the results reported (see Table 3.9), the relationship between WPB and vigour was moderated by JR ($F(1,153) = 6.89$, $p = .01$, $\Delta R^2 = .03$), accounting for 3,28% of variance in WE. Therefore, at different levels of resources, the relationship between WPB and WE is altered.

Table 3.9

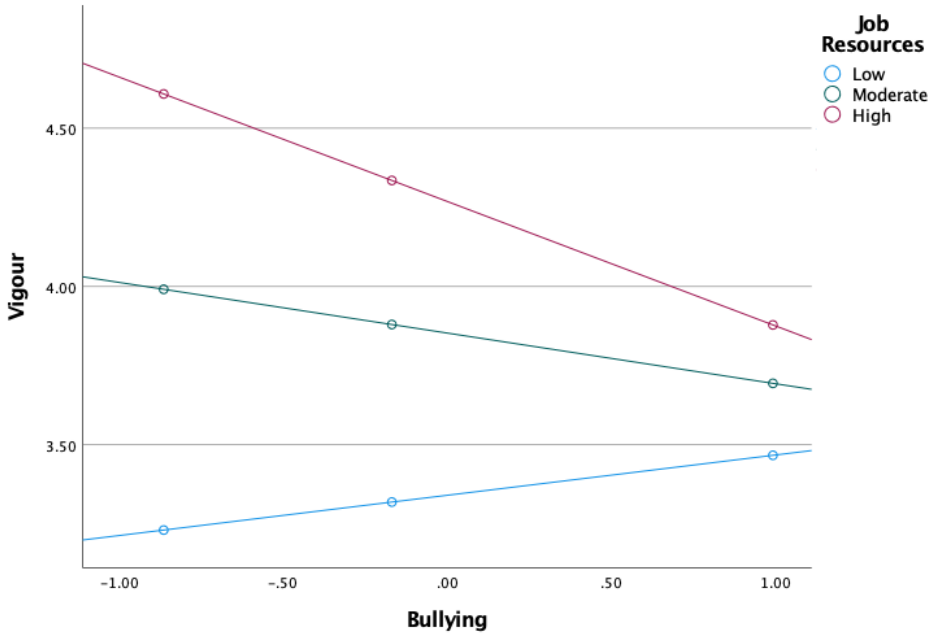
Simple Moderated Multiple Regression: Vigour as the Outcome Variable

	B	*SE B*	*t*	*p*
Constant	3.824	.081	47.115	.000
WPB	-.144	.103	-1.391	.166
JR	.728	.148	4.912	.000
WPB x JR	**-.408**	**.155**	**-2.624**	**.01**

3.6.3.2.1 Simple Slopes Analysis (WPB x Vigour). As moderation was present in this model, further analysis of the interaction effect is needed. Through the use of Simple Slopes, we are able to better understand the nature of the moderating effects. When JR levels are moderate or low, as the conditional effects are not significant, indicating that relationship between WPB and vigour is not affected. However, WPB has a weak to moderate effect on vigour at high levels of JR. As this relationship is further strengthened when high JR are present, a boosting effect is seen, which can be seen in Figure 3.2. As such, when high JR exist, higher levels of WPB led to lower levels of WE being experienced. This further indicates that the presence of higher JR intensified the effects of WPB on vigour, making the situation worse. When JR levels are moderate or low, as the conditional effects are not significant, indicating that relationship between WPB and vigour is not affected. Therefore, as a boosting effect was found, Hypothesis V is not supported.

Figure 2.2

Simple Slopes analysis for the moderation of JR on WPB and Vigour



3.6.4 Moderated Multiple Regression: Dedication as the outcome variable

3.6.4.1 Job Demands and Job Resources as moderator. Moderated Multiple Regression was undertaken to establish whether JD and JR moderated the relationship between WPB and dedication (see Table 3.10). Significant main effects were reported for both JR (b = -.58, t(5,151) = 3.56, p = .001) and WPB (b = -.36, t(5,151) = -2.76, p = .007). Accordingly, JR was found to significantly moderate the relationship between WPB and dedication (F(1,151) = 4.68, p = .032, ΔR^2 = .02), accounting for 2.15% of variance in dedication. However, due to the insignificant interaction reported (b = -.15, t(5,151) = -.60, p = .549), JD was not found to moderate the relationship between WPB and dedication. Further, the addition of both interaction terms (WPB x

JD and WPB x JR) was also insignificant ($F(2,151) = 2.37$, $p = .097$, $\Delta R^2 = .02$), and accounted for a small amount of variance (2.18%) in dedication.

Table 3.10

Moderated Multiple Regression: Dedication as the Outcome Variable

	B	*SE B*	*t*	*p*
Constant	4.185	.094	44.669	.000
WPB	**-.361**	**.131**	**-2.762**	**.007**
JD	-.118	.188	-.627	.532
WPB x JD	-.151	.251	-.601	.549
JR	**.575**	**.162**	**3.555**	**.001**
WPB x JR	**-.362**	**.168**	**-2.163**	**.032**

3.6.4.2 Job Resources as moderator (WPB x Dedication). In order to further disentangle the moderation effects seen in section 3.6.4.1, Simple Moderated Multiple Regression was performed to determine whether JR moderated the relationship between WPB and dedication. No main effects will be further interpreted, as moderation was demonstrated within this model. Accordingly, JR was found to significantly moderate the relationship between WPB and dedication ($F(1,153) = 4.59$, $p = .034$, $\Delta R^2 = .02$), which accounted for a small variance (2,1%) in dedication (see Table 3.11). This further suggests that at differing levels of resources, the relationship between WPB and WE changes.

Table 3.11

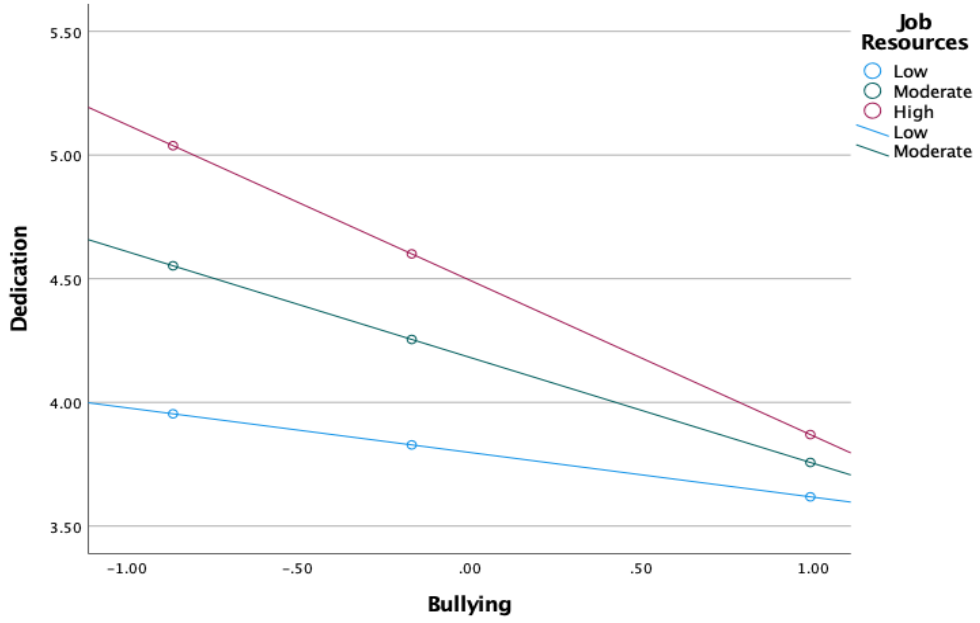
Simple Moderated Multiple Regression: Dedication as the Outcome Variable

	B	*SE B*	*t*	*p*
Constant	4.161	.087	48.595	.000
WPB	-.414	.109	-3.798	.000
JR	.546	.156	3.493	.001
WPB x JR	**-.351**	**.164**	**-2.143**	**.034**

3.6.4.2.1 Simple Slopes Analysis (WPB x Dedication). As moderation occurred in model 1a, further interpretation of the interaction effect is needed. Through the use of simple slopes analysis, the nature of the interaction was further explored. As seen in Figure 3.3, as JR increases, the relationship between WPB and dedication is boosted. Despite the conditional effects for WPB being insignificant at low levels of JR (p = .189), at moderate and high levels of JR, significant conditional effects were seen. As depicted in Figure 3.3, when levels of JR is moderate, the effects of WPB on dedication is moderate. However, when JR levels are high, WPB has a slightly strong effect on dedication. Once more, these results indicate that a boosting effect is present when average to high levels of JR are available. Accordingly, the effect WPB has on WE is strengthened, further aggravating the situation. Therefore, as no buffering effect is seen, Hypothesis V is not supported.

Figure 3.3

Simple Slopes analysis for the moderation of JR on WPB and Dedication



3.6.5 Moderated Multiple Regression: Absorption as the outcome variable

3.6.5.1 Job Demands and Job Resources as moderator. Moderated Multiple Regression was undertaken to establish whether JD and JR moderated the relationship between WPB and dedication. As seen in Table 3.12, both main effects and moderation was demonstrated. Although both WPB (b = -.31, t(5,151) = -2.45, p = .016) and JR (b = .516, t(5,151) = 3.26, p = .001) was found to significantly predict absorption, the interaction of WPB x JR was also significant (F(1,151) = 11.09, p = .001, ΔR^2 = .06), accounting for a moderate change in variance in absorption (5.47%). This suggests that JR moderates the relationship between WPB and absorption. Further, the addition of both interaction effects (WPB x JD and WPB x JR) was found to be significant (F(2,151) = 5.59, p = .005, ΔR^2 = .056), accounting for 5.51% of variance in absorption.

Table 3.12

Moderated Multiple Regression: Absorption as the Outcome Variable

	B	*SE B*	*t*	*p*
Constant	3.935	.092	42.884	.000
WPB	**-.314**	**.128**	**-2.447**	**.016**
JD	.154	.184	.835	.405
WPB x JD	-.066	.246	-.270	.788
JR	**.516**	**.158**	**3.260**	**.001**
WPB x JR	**-.546**	**.164**	**-3.330**	**.001**

3.6.5.2 Job Resources as moderator (WPB x Abs). Simple Multiple Moderated Regression was performed to disentangle the previous Moderation effects (see section 3.6.5.1) and to determine whether JR moderated the relationship between WPB and absorption. While significant main effects were reported for both JR and WPB, as moderation was present, only the interaction effects will be further explored. Accordingly, the relationship between WPB and absorption was seen to be significantly moderated by JR ($F(1,153) = 10.79$, $p = .001$, $\Delta R^2 = .05$), accounting for 5,28% of the variance in absorption (see Table 3.13).

Table 3.13

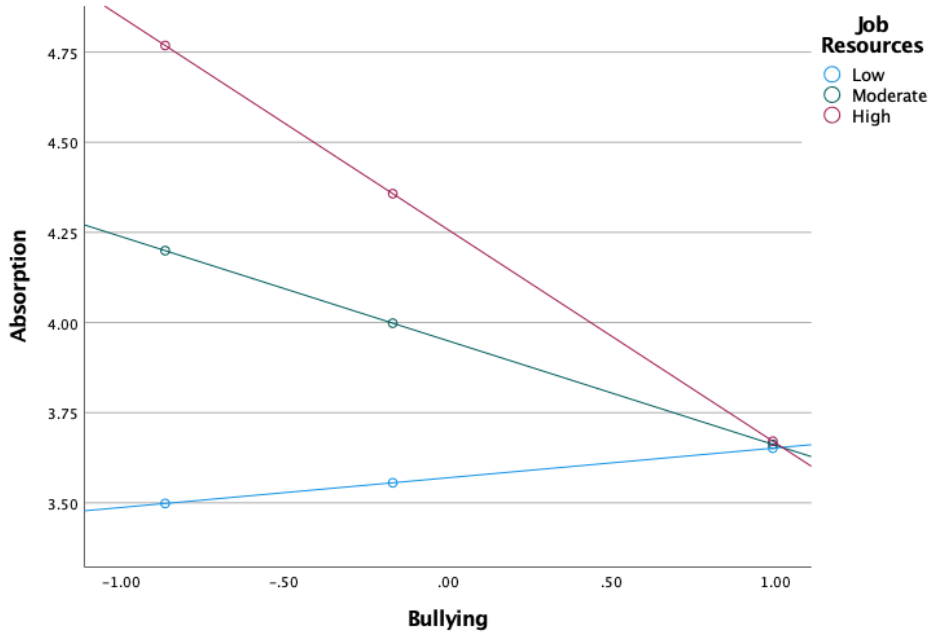
Simple Moderated Multiple Regression: Absorption as the Outcome Variable

	B	*SE B*	*t*	*p*
Constant	3.928	.084	46.791	.000
WPB	-.268	.107	-2.509	.013
JR	.54	.153	3.519	.001
WPB x JR	**-.529**	**.161**	**-3.284**	**.001**

3.6.5.2.1 Simple Slopes Analysis (WPB x Absorption). In order to gain a deeper understanding of the nature of the interaction effects present, Simple Slopes were analysed. When looking at the results, at low levels of JR, insignificant conditional effects were reported (p = .539), indicating that the relationship between WPB and absorption is not affected. At both high and moderate levels of JR, significant conditional effects were apparent. As depicted in Figure 3.4, stronger effects on the relationship between WPB and absorption were found at higher levels of JR. Despite this, WPB has a weak to moderate effect on absorption at moderate levels of JR. Accordingly, as JR increased, higher levels of WPB were associated with lower levels of absorption, suggesting that JR strengthened the relationship between WPB and absorption. As this relationship is boosted, Hypothesis V was not supported.

Figure 3.4

Simple Slopes analysis for the moderation of JR on WPB and Absorption



Summary of Results

1. WPB was significantly, negatively, and moderately associated with WE, including the subcomponents of vigour, dedication, and absorption.
2. JD was significantly associated to WPB. In the presence of JD, levels of WPB increased.
3. JR was inversely related to WPB. Higher levels of JR resulted in decreased levels of WPB.
4. JD did not moderate the relationship between WPB and WE, or its subcomponents of vigour, dedication, and absorption.
5. JR significantly moderated the relationship between WPB and WE, as well as its subcomponents of vigour, dedication, and absorption. However, an unexpected result was

reported in that a boosting relationship was found; in cases where high JR are present, the impact of WPB on WE worsened.

6. Significant main effects were also reported. JR significantly predicted WE as well as its subcomponents of vigour, dedication, and absorption. Further, JD was found to significantly predict vigour, while WPB significantly predicted both dedication and absorption.

Chapter 4: Discussion

4.1 Introduction

Within South African schools, the issue of WPB among teachers is becoming more widespread. Due to the multiple negative implications that exist as a result, it is thus important to gain a deeper understanding as to why such events occur and what can be done to address them. Using the JDR model as a framework, we can have a greater understanding on whether the absence or presence of job characteristics, being JD and JR, fosters an environment where bullying flourishes. This study aimed to contribute to the broader literature on WPB, by looking at the relationships between WPB, WE and job characteristics among teachers. Aligned with previous literature, it was expected that WPB was related to WE, as well as its subcomponents of vigour, dedication, and absorption. In addition, a significant relationship between WPB and both JD as well as JR was expected to be established. These hypotheses were confirmed by the results of the study. However, some findings were counterintuitive, as a reverse-buffering effect was reported. In the presence of higher JR, the impact of WPB on WE worsened. Despite JD being significantly associated to WPB, JD was not found to moderate the relationship between WPB and WE or its subcomponents. The significant findings and the subsequent implications of the current study will be explored in greater depth.

4.2 Workplace Bullying and Work Engagement

The findings of the current study indicated that WPB were significantly correlated with decreased WE, as well as it's subcomponents of vigour, dedication, and absorption. Within the Literature Review, it was proposed that a negative relationship would exist between the variables.

This negative relationship has also been supported in various other studies (Coetzee & Van Dyk, 2018; Glaso et al., 2011; Park & Ono, 2016; Rodriguez-Munoz et al., 2009). As this relationship was subsequently found, Hypothesis I within the current study is supported. When a WPB incident occurs, due to the arduous strain it may impose on an individual and the negative feelings that result, WE may become impaired (Coetzee & Van Dyk, 2018). This may be partially due to the inherent perception one has about the demands they face, as they may either be seen as a 'challenge' or a 'hindrance' to their overall development and progression at work (Crawford et al., 2010; Einasren et al., 2016). Depending on how the demand is categorised, the level of energy that will be given to the scenario will differ accordingly. For instance, compared to a hindrance demand such as WPB, when certain events are seen as challenging, individuals may then be more motivated and engaged to overcome a particular problem or scenario, as it may provide an opportunity for growth (Crawford et al., 2010). While this still requires a certain level of effort, their overall well-being will not be negatively impacted as it is not viewed as a strenuous encounter (Li et al., 2020). However, on the other hand, hindrance demands may trigger a variety of negative emotions, which may cause individuals to retract and withdraw from a situation, directly impacting their overall levels of engagement (Magee et al., 2017). This specific type of demand may be so taxing to an individual that is it considered a personal hindrance to their overall development and growth. As such, individuals may then be less willing to invest energy and resources, further undermining the WE one has (Crawford et al., 2010; Mazzetti et al, 2021). Therefore, the teachers within the current study may have attributed the WPB they were facing to be a hindrance demand.

In addition, as an individual's emotional and mental state may be negatively impacted for a period of time, as an energy-depleting process may occur, which may further impact their ability

to cope with the stressful situation (Einarsen et al., 2016; Rai & Argawal, 2017). Overall, if individuals are exposed to bullying behaviours, their sense of commitment and levels of engagement may decrease as a whole, as it may be hard for someone to invest their efforts back into their job that is situated in a toxic work environment (Van den Broeck et al., 2011). Thus, victims of WPB in South African schools may become disengaged from their work, which has severe implications for not only the education sector as a whole, but for the students themselves as the quality of their education may be compromised (Merilainen et al., 2019). Additionally, if such bullying behaviours persist, teachers are likely to leave the profession entirely (Batchelor, 2019).

4.3 Job Characteristics and Workplace Bullying

The results of the present study indicated that job characteristics were significantly associated with WPB. Whilst higher levels of JR led to lower levels of WPB, higher levels of JD were significantly associated with increased levels of WPB within the current study, supporting the anticipated hypotheses (Hypothesis II and Hypothesis III) presented in Chapter 1. These results further substantiate the use of the JDR model within the South African context and is thus aligned with the Work-Environment hypothesis (Bakker & Demerouti, 2007; Van den Broeck et al., 2011). As poor job characteristics may be attributed to a stressful working environment, it has been argued that in the presence of high JD and low JR, WPB may flourish (Ballien et al., 2011). As previously mentioned, as JD may be highly taxing on an individual due to the sustained effort that is required to meet such demands, negative health implications may result as an energy-depleting process may occur (Bakker & Demerouti, 2007). Simply put, individuals may use excessive energy and effort when trying to combat the demands they are facing, which may mentally drain the individual to

such a degree that they experience burnout (Van den Broeck et al., 2011). However, the negative impact of JD may be ameliorated through the use of available JR one possesses, as this may enable individuals to cope better by reducing the strain that is encountered (Bakker & Demerouti, 2007). In addition, as JR have a motivational aspect to them, they may also be classified as key driver of WE (Hakanen et al., 2021). While the job characteristics one possesses may differ from occupation-to-occupation, if an individual does not have the necessary JR at their disposal when facing excessive demands, negative health implications may persist due to the high psychological and physiological costs that are involved (Dicke et al., 2018). In these types of toxic environments, WPB is seen to flourish as individuals may take out their frustration and stress on vulnerable targets. This is particularly salient within poorly resourced schools in South Africa, as teachers are often inundated with varying JD, such as overcrowded classrooms with high learner-to-teacher ratios, increased workload as well as limited basic facilities (Batchelor, 2019; Jacobs & Teise, 2019; McKay et al., 2018; West & Meier, 2020) which may contribute to the overall strain a person may feel when they are unable to effectively cope.

The main effects reported in the Multiple Moderated Regressions align with the correlations that were performed. As previously mentioned, JR significantly predicted WE as well as its subcomponents of vigour, dedication and absorption, and JD was found to significantly predict vigour. Additionally, WPB was found to significantly predict both dedication and absorption. While correlation analyses are interested in the relationship between two variables, the results from MMR's that were conducted may *infer causality* between the variables measured.

4.4 The Moderating Role of Job Resources

As the Literature Review suggested, JR was expected to buffer the relationship between WPB and WE (Bakker et al., 2014; Coetzee & Van Dyk, 2018; De Braine & Roodt, 2011) and JD was expected to worsen (boost) the relationship. When a buffering effect is present, the impact of a specific stressor on an outcome variable is considerably reduced (Bakker et al., 2007; Kahn & Byeosiere, 1992). On the other hand, when a boosting effect is present, the relationship between certain variables is exacerbated, as the negative impact of a specific stressor on an outcome variable is amplified. The role of JR in the WPB-WE relationship will be discussed further below.

4.4.1 Job Resources and the Relationship between Workplace Bullying and Work Engagement

Although prior literature has suggested that in the presence of JR, the relationship between WPB and WE would be buffered, within the present study, results indicated that JR moderated (boosted) the relationship between WPB and WE, as well as its subcomponents of vigour, dedication, and absorption. In other words, the effects of WPB on WE, vigour, dedication, and absorption are exacerbated (i.e., strengthened) when JR are present. Despite such results contravening the JDR model, which suggests that JR can play a pivotal role in reducing any JD faced, which may enable WE to be maintained (Bakker et al., 2014), there have been other instances where JR did not have its desired effect (Beehr et al., 2010; Hu et al., 2011; Gentry et al., 2019). Within this current study (see Table 3.4) increased levels of JR were associated with heightened levels of WE, including vigour, dedication, and absorption. When such relationships are disentangled, results are aligned with previous literature. However, in the presence of WPB, the anticipated impact of JR is negated, resulting in somewhat counter-intuitive results. Various reasons exist as to why this reverse-buffering effect has been found, which will be discussed below.

Closer examination of the items within the Resources scale of the JDR instrument reveal that many items are associated with resource provision from resource providers (such as “Can you count on your colleagues when you come across difficulties in your work”; “If necessary, can you ask your colleagues for help?”; “Do you have contact with difficult people in your work”; “Can you count on your supervisor when you come across difficulties in your work”; “Is it clear to you to whom you should address within the school for specific problems?”; “Can you have a chat with colleagues during work hours?”; “Do you find you have enough contact with colleagues during work hours?”; “If necessary, can you ask your supervisor for help?”; “Can you discuss work problems with your direct supervisor?”) (see Appendix A). As such, it could be probable that these very resource providers could be *the sources of demands or stress, in particular they could even be sources of WPB.* This notion is more fully unpacked below.

4.4.1.1 Providers of Resources. The first possible explanation for the above-mentioned results, may be due to the actual providers of the resources themselves. *Simply put, it is plausible that the individuals who are providing the various resources to the victims of bullying, may in fact be the bullies themselves*. As a result, while several resources may be available to WPB victims, as they are supplied by the perpetrators, the resources are then countered. This may have been a possibility in the current study, as moderate levels of resources were reported (see Table 3.1.), and when looking at the JDRS scale, which measured JR, majority of the items related to both supervisor and co-worker support (see Appendix A). It is therefore possible that the social support that was available within the schools, which is classified as a JR (Bakker et al., 2007; McIlroy et al., 2021), was provided by the very individuals who were likely the perpetrators; diminishing any positive effects that may have prevailed. In certain circumstances, JR may thus act as a booster

rather than buffer in the job-strain relationship. As the 'support' provided by others (i.e., the perpetrators) may be considered meaningless, if not actually very stressful to the victim, the individual's ability to cope with such negative acts may be hampered. Thus, the protective shield that may be offered through social support may be diminished in these instances, as the individual may feel as if they are unable to turn to their colleagues and utilise the 'so-called' resource at hand. Even if the colleagues themselves are not the bullies, they may be complicit in the negative acts by either being bystanders, or worse, by collaborating with the principals in order to avoid becoming victims themselves, with some victims even labelling their colleagues as "watchdogs" (De Vos & Kirsten, 2015, p.4). Further, due to the negative impact WPB has on social relationships in the workplace, victims often disengage from social situations due to the mistrust they have of their fellow colleagues (Batchelor, 2019). As such, although various support may be offered to victims of WPB, they may not make use of this resource as they may be wary of who they can rely on to share their negative experiences in confidence, as it is possible that it may get back to the perpetrator (Middleton, 2018).

While these findings are seemingly unexpected, other studies have also shown how high levels of social support as a resource under certain conditions may intensify negative outcomes. As Social Support is considered a Job Resource, the results can be extended to this study. For instance, in Fox and Stallworth's (2010) teacher-specific study, reverse-buffering effects relating to Social Support were seen. In instances where higher colleague social support was present, the relationship between WPB, job satisfaction and job attachment worsened, and negative emotions and burnout were found to increase. In the case of Wu and Hu's (2009) study, when high levels of social support were apparent, the relationship between abusive supervision (akin to WPB) and

emotional exhaustion was amplified, further highlighting the negative impact Social Support may have in certain situations. More recently, this unusual pattern was also illustrated in Glazer and Amren's (2018) study. Within the study, organisational and supervisor support was seen to strengthen the negative job-stressor-outcome relationship. This can be further applied to the WPB-WE relationship, as WPB is considered a job stressor, which has a negative impact on both well-being and organisational outcomes. Specifically, a reverse-buffering effect was also found in a South African study (Middleton, 2018), whereby the effects of toxic leadership was worse in the presence of Social Support. This may further highlight the important contextual factors that may be at play, as the South African population may have unique factors or characteristics that must be considered.

Therefore, social support in these instances may be seen as a dysfunctional resource, which may allude to one reason as to why in the presence of high JR, the effects of WPB on WE deteriorated.

4.4.1.2 Relational Schemas. The second possible explanation that may account for the results obtained is the concept of Relational Schemas. Huang et al. (2008) explored this idea, and proposed that individuals, based on their past interactions with others, develop relational schemas which inform how their relationships are appraised. Extending this to the workplace, Caesen et al. (2019) argued that in cases whereby supervisors or managers engage in abusive behaviours, victims form negative relational schemas based on harmful exchanges that are had, which can be further exacerbated through perceived Social Support. This may be due to the fact that when victims reach out for support and disclose such interactions to their colleagues, their negative

relational schemas may be reinforced through these conversations, as victims may perceive the negative acts as being worse (Caesens et al., 2019). This is closely aligned to the concept of 'co-rumination', whereby individuals tend to excessively re-hash and dwell on certain negative events when in conversation with others (Boren, 2014; Van den Brande et al., 2018). In many instances, as these types of conversations are often had with colleagues at work, no tangible solutions may be offered to the victim, as the providers of support may not have the ability nor authority to actively change the situation (Boren, 2014). As a result, when individuals engage in excessive 'negative talk', more harm than good may be done as such conversations may elicit more strain on the victim as negative emotions may be amplified (Middleton, 2018).

Within the present study, it is plausible that when reaching out to supportive colleagues, after speaking about certain WPB events that may have prevailed, due to the nature of the conversations had, their negative feelings towards the bully and ultimately the situation were reinforced, making the effects of WPB more apparent. Similarly, Beehr et al. (2010) proposed that in conversations with other colleagues, when dwelling on negative incidents that have occurred, stressful events are inherently focused on, enhancing the strain that is experienced. WPB can be seen a as negative event that imposes great stress and strain on the employee, ultimately affecting their well-being. Therefore, instead of alleviating any strain that may be experienced through social support, victims experienced the strain of the situation more by disclosing and ultimately increasing their focus on the negative. Ultimately, this reasoning may account for why in instances where high JR are present, the impact of WPB is more profound on WE.

4.4.1.3 Resource Loss Prevention. Further, a third possible reason for the counterintuitive results obtained may be explained through the use of COR Theory. As mentioned within the Literature Review, one of the key elements pertaining to COR Theory concerns the saliency of resource loss compared to resource gain (Hobfoll, 2001). In order to prevent loss spirals from occurring, as well as considering how hard it may be for individuals to acquire and maintain resources that are of crucial value to them, individuals may choose to conserve their resources instead of using them (Hobfoll et al., 2018; Van den Tooren & De Jonge, 2010). This may be particularly important in the school environment and in cases where WPB flourishes, as resources may be hard to come by. Additionally, if certain resources such as social support are *'provided'* by the perpetrators or individuals complicit in WPB incidents, individuals may want to hold onto the resources they may have to counteract the demands they are facing.

Therefore, although moderate levels of resources such as external support were available to the victims within the present study, they may have chosen to preserve the resources they had, instead of consuming them. Furthermore, if these so-called resources were indeed a source of stress, they would not have been using them at all.

4.4.1.4 Threat to Self-Esteem. Fourthly, in the case of WPB, feelings of ineptness and inadequacy may be triggered through receiving social support (Deelstra et al., 2003, Beehr et al., 2010). As such adverse feelings may be brought up, victims may be hesitant to utilise such resources even if available, as it may be considered a threat to their self-esteem, which in turn may elicit further negative reactions. It may be plausible that in the case of the present study, teachers may feel embarrassed or even stigmatised when speaking about WPB incidents to their fellow

colleagues. As these conversations are sensitive in nature and may make the victim feel vulnerable, by sharing their experiences, victims may feel as if their inability to cope may be highlighted, or even worse, they may feel as if they are being perceived as 'weak' or 'incompetent' by others (Batchelor, 2019; Gentry et al., 2019). Additionally, seeking out social support may attract unwanted attention to the victim (Middleton, 2018). In some instances, it may be extremely hard for someone to identify as a victim in a situation, as they themselves do not want to believe that they are unable to deal with a problem without someone's assistance (Phelan & Rudman, 2010). Thus, if they had to draw upon the support from others, their inherent beliefs about their own reputation as well as self-image may be threatened as they may feel as if they do not have the necessary control or ability to handle a negative event, like WPB (Shrout et al., 2006). Therefore, even in the presence of high JR, individuals may not feel comfortable utilising the resources available as it is seen as a threat to the self-esteem, therefore, negating the positive impact it may have had on WE when facing WPB.

4.4.1.5 Matching Hypothesis. The fifth possible explanation as to why somewhat counter-intuitive results were reported in the current study may be due to the matching hypothesis. According to Cohen and Wills (1985), the impact of strain may be mitigated when the type of available resources 'matches' or is comparable to the type of stressor (i.e., JD) experienced. As social support represents a type of JR, it can be further argued that in the current study, a possible mismatch occurred between the demands that were faced and the resources that were available (De Jonge & Dormann, 2006). Thus, while moderate levels of JR were available to the teachers within the study, they may have not corresponded to the type of demands faced as an ineffective type of

support was potentially offered (Fox & Stallworth; 2010; Gentry et al., 2019; Semmer et al., 2008; Sonnentag & Frese, 2013).

In a broad sense, social support can be classified into two categories, namely instrumental and emotional support. As mentioned in the Literature Review (see page 17), instrumental support may refer to any tangible acts whereby an individual assists with solving a problem or task, while emotional support comprises acts of empathy and compassion towards an individual, in addition to listening to any concerns or problems one may have (Mathieu et al., 2019; Semmer et al., 2008). When facing WPB, which spans from person-related to work-related incidents (Rai & Agarwal, 2016), it may be of crucial value to the victim to choose the corresponding resource that may help alleviate the demands they face. Even if other resources within their environment may be readily drawn upon, the victim may still choose to not to utilise them as the resource may not be able to efficiently regulate their experience (Van den Tooren & De Jonge, 2010). For instance, in an emotionally demanding situation whereby person-related incidents of WPB is experienced, in order to feel supported, the victim would not need assistance with daily tasks or reaching a deadline, but would rather find emotional based support more helpful, as the colleague or supervisor may be able to mitigate how the stress is appraised (Semmer et al., 2008). However, in incidents of work-related bullying, instrumental support may be more beneficial as individuals may help with work tasks as victims may be inundated with tasks. That being said, if the wrong type of support is garnered, the positive effects that could ensue may be diminished, rendering the support meaningless (Paukszat et al., 2022; Semmer et al., 2008).

In conclusion, we are able to see by the various explanations offered above how in certain contexts, JR may at times *not help* alleviate the strain or stress encountered from incidents such as WPB. As victims may experience the impact of the stressor more negatively due to the relationship that subsequently exists, an individual's WE may actually deteriorate.

4.5 The Moderating Role of Job Demands

Within the Literature Review, it was argued that in environments where the presence of JD is substantial, the relationship between WPB and WE would be boosted (moderated). The role of JD on the relationship between WPB and WE, and its subcomponents are discussed further below.

4.5.1 Job Demands and the relationship between Workplace Bullying and Work Engagement

Aligned with previous literature as well as the JDR model, it was anticipated that JD would moderate (boost) the relationship between WPB and WE, as well as its subcomponents of vigour, dedication, and absorption. However, within the present study, no evidence for this hypothesis was found. While previous studies have reported such relationship to exist (Coetzee & van Dyk, 2018; Hoole & Bonnemma, 2015; Park & Ono, 2016; Rai & Argarwal, 2017) many reasons exist as to why no boosting effect was seen, which is further discussed below.

4.5.1.1 Poorly Resourced Schools. The first possible explanation that may account for why moderation was not observed in the WPB-WE, WPB-VI, WPB-DE and WPB-ABS relationships may be due to the poor working conditions faced in many public schools within South Africa. It may be plausible that the teachers within the current *study may be so used to the excessively demanding environment that they work in,* that they actually become accustomed to the stressors

and high JD that exist. In many instances throughout SA, teachers are continuously having to deal with very poor infrastructure (West & Meier, 2020), high pupil to teacher ratios (De Wet & Jacobs, 2013), insufficient learning materials such as desks and textbooks (Mckay et al., 2018) as well as increased workload (Van Tonder & Fourie, 2015). Further, the increase of disruptive children is fast becoming a contentious issue within South African classrooms, as teachers are often having to take on additional roles to counteract such negative behaviour (Batchelor, 2019; Segalo & Rambuda, 2018). Teachers may also be subjected to bullying from learners themselves (Woudstra et al., 2018) in addition to the bullying received from both colleagues and principals (De Vos & Kirsten, 2015). As such poor working conditions are both widespread and ubiquitous, the conditions experienced may become 'normalised' and subsequently the teachers may be so inured to their state of affairs, that they have learnt to how to somewhat manage particular stressors that they are continuously exposed to.

4.5.1.2 Teaching as a Vocation. Moreover, as teaching can be considered a vocation, teachers may persist through taxing and arduous situations, as encountered in South African public schools, as they believe they have a *specific 'calling' to the profession* (Kohl, 1984). Due to these vocational beliefs, it is possible that teachers may persist through poor working conditions and toxic environments, as well as any bullying events, as they are committed to making a difference in the lives of the children they teach, as well as the broader education system as a whole (Gu & Day, 2013). Essentially, teachers may not merely see their work as a means to an end, but instead believe they have a broader responsibility to society at large (Hansen & Quek, 2022). De Wet's (2011) qualitative study, which was interested in educator-on-educator bullying within the South African school context, further showcased the sense of commitment and duty teachers have to their

students and the profession, as even if the face of direct bullying, one teacher decided against quitting “for the sake of the children” (De Wet, 2011, p.461). As such, teachers may be drawn to the profession due to the positive impact they may have on the growth and development of young minds. Due to their involvement, teachers may have a sense of accomplishment when learners are seen to flourish, which further contributes to their overall identity and purpose as a whole (Casely-Hayford et al., 2022; Hansen & Quek, 2022). As this is closely related to the intrinsic and altruistic motivation one has, the desire to help and educate others may be powerful enough to act as a factor of retention amongst teachers (Alexander et al., 2020; Chiong et al., 2017). Thus, through their sense of vocation, teachers may be more resilient when facing such demands, and are able to better face them due to the passion they may have (Borst et al., 2020; Day & Hong, 2016). This may also further account for why moderate levels of WE were present in the study. Therefore, it is possible that the JD the teachers faced within the current study did not moderate the relationship between WPB and WE as they were able to ‘bear’ the challenges they encountered in order to keep fulfilling their passion and purpose of teaching.

4.5.1.2 Individual Dispositions. Further, another possible reason as to why JD did not moderate the relationship between WPB-WE, WPB-VI, WPB-DE and WPB-ABS may be due to the individual dispositions that exist within the current sample. As the way someone thinks, behaves, or even feels is determined by the personality traits one possesses (Nielsen & Knardahl, 2015), it is plausible that personality acted as an extraneous variable in the current study. On the one hand, while certain personality characteristics may make individuals more susceptible to WPB incidents, (see page 18), personality may too influence the way an individual perceives, responds, and ultimately copes with a strenuous situation, which is known as the *negative perceptions*

mechanism (Nielsen & Knardahl, 2015; Rai & Agarwal, 2019). If strong personality characteristics were present in the sample, the effects of WPB may be mitigated as individuals are predisposed to interpret situations against their own thresholds, which is determined by their temperament (Nielsen et al., 2017). Simply put, an individual is expected to respond to a certain situation based off the inherent characteristic traits he or she possesses. By virtue of this, an individual may be exposed to the same type of event but may respond differently as their ability to cope with demands vary. Thus, certain 'strong' personality traits may act as a resource, attenuating the negative effects that stem from arduous situations.

In this regard, as personal resources can play a pivotal role in mitigating the distress that is felt within a certain situation, the PsyCap one possesses may be highly regarded when faced with incidents of WPB (Xanthopolou et al., 2009). As previously mentioned, (see pg. 10), PsyCap consists of four elements, being optimism, resilience, hope and efficacy. While *optimism* refers to the inherent belief or expectation that positive outcomes will ensue throughout one's life (Xanthopolou et al., 2007), *resilience* relates to ability to successfully endure and recover from any setbacks encountered (Kotze & Nel, 2019). *Hope* reflects one's positive psychological state whereby an individual's desire to reach a certain goal or end-state motivates them to accomplish their goals through carefully curated action plans/pathways (Snyder et al., 1991, as cited in Kotze & Nel, 2019). Lastly, the level of confidence an individual possesses surrounding their capability to perform a certain task, is known as *self-efficacy* (Luthans & Youssef, 2007). When faced with high JD, such as WPB, individuals who are high on PsyCap may be able to cope in a more efficient manner, as they may feel as if they have more control over their environment, which may directly impact how they respond or appraise a certain situation (Xanthopolou et al., 2013). For instance,

Boudrias et al. (2011) found that in instances where employees had high levels of both optimism and resilience, due to the positive personal resources they possessed, the demands that were encountered were experienced as less arduous and taxing. This is further supported in Yun and Kang's (2018) study, as individuals who had higher levels of PsyCap experienced reduced negative emotions when faced with incidents of WPB. Due to the various positive implications that exists, this would be considered an important resource to conserve as it may have various mitigating effects later on.

Alternatively, 'weaker' /'vulnerable' personality traits may predispose individuals to perceive WPB in a certain way, which may make the situation worse (Nielsen et al., 2017). For instance, individuals who are high on the trait of neuroticism are more likely to experience incidents of WPB, as they perceive situations more negatively than others (Glaso et al., 2007; Nielsen et al., 2017). As such individuals tend to be reactive when faced with strenuous situations, individuals tend to engage in ineffective coping mechanisms, which further amplify any strain that is felt (Van den Brande et al., 2018). Within the present sample however, teachers may have had low levels of this trait, as they may not have exhibited signs of anxiousness or trepidation when faced with WPB, which may have enabled them to cope better.

Another 'strength trait' could be that of hardiness. The sample of teachers within this study may have had high levels of psychological hardiness, which consists of three elements, namely commitment, control, and challenge (Hamre et al., 2020). Individuals who are high in psychological hardiness believe that through their concerted effort, they are able to better handle challenges that life presents to them, as such situations are not perceived as threats but rather as

opportunities for growth and development (Hamre et al., 2020). Due to the positive and resilient mindset hardy individuals have, the experience of stress stemming from an event like WPB may be minimised. As such, the demands that are encountered may not considered as taxing and may have less implications on one's health. This is further supported in Reknes et al. (2018) study, as individuals high on hardiness experienced less anxiety when facing acts of bullying. Thus, the trait of hardiness can be seen to act as a protective buffer against stressful situations, as it enables individuals to cope in a more effective manner (Teo et al., 2021). Another possible personality factor that may have been in play within the current study is that of internal locus of control. Individuals with this particular personality disposition believe that certain events within their lives are due to the actions they have taken (Ariza-Montes et al., 2017). As they believe they have an element of control, their ability to handle stressful encounters may be improved due to the type of coping mechanism utilised. According to Dijkstra et al. (2011), individuals who are high on internal locus of control may adopt a more active coping style, whereby a problem-focused approach is undertaken. As such individuals choose not to avoid the problem at hand, but rather take initiative to deal with the source of stress, the effects of such strenuous events may be attenuated (Bernstein & Trimm, 2016; Dijkstra, et al., 2011). Therefore, internal locus of control may too act as a buffer against the stress that is derived from incidents of WPB.

Although personality was beyond the scope of the present study and was subsequently not measured, it is plausible that the teachers who formed the sample possessed strong personality characteristics, which influenced their ability to cope with the strenuous instances of WPB as they were able to better bear the high demands encountered. Therefore, the teachers within the study

may not have been as impacted by the JD present, which may account for why no moderation occurred.

4.6 Limitations

Despite the significant, albeit at times counterintuitive findings and possible contributions to the greater body of research surrounding WPB, WE and Job Characteristics within the South African Context, certain limitations of the study must be duly acknowledged.

4.6.1. Demographic Nature of the Sample

Firstly, due to the fact that the current study used secondary data for the statistical analyses, the variable of gender was not measured as the primary researcher did not include it in the original biographical questionnaire. As a result, the current researcher was not able to determine whether the sample in the study was representative of the broader South African teaching population, further limiting the generalisability of the results obtained. However, it is important to note that teaching is considered a female-dominated profession (Davids & Waghid, 2020).

4.6.2. Sample Size

Although the sample size was adequate to conduct statistical analyses, a second limitation of the study is the relatively small size of the sample (n=158). In order to provide more accurate results, as well as improve the overall generalisability of the results to the broader population, it may have been advantageous to have used a bigger sample (Laher, 2016).

4.6.3. Research Design

Thirdly, as a correlational, cross-sectional research design was employed within the current study, certain limitations exist. As participants were only measured at a single point in time, no causal conclusions may be drawn from the study (Field, 2009). Additionally, by virtue of this, one may not determine the time at which the participants were subjected to the specific stressor (being WPB), as it may have occurred prior to the actual sampling taking place. In such instances, when answering the survey, participants may have recalled their experiences, which may have altered the responses they gave.

4.6.4. Use of Self-Report questionnaires

Further, as a self-report questionnaire was used to measure the sensitive subject of WPB, respondents may not have answered honestly, as they may have responded in a socially desirable way in order to present themselves in a favourable manner. As this type of bias may exist within the present study, it is possible that the answers obtained are either overstated or played down (Krumpal, 2013). Although anonymity and confidentiality were ensured within the study, and participants were given the choice to complete the survey online or by hand (see section 2.4.2) it is still possible that the survey was completed in the presence of either their school principal or alternatively their colleagues. Ultimately, this too may have altered the way responses were given and should be acknowledged.

4.6.5 Acknowledgment of Victim-Status

Within the current study, it is possible that the victims themselves underplayed their experience of WPB, as their desire to not see themselves as a 'victim' may have implicated the results obtained. For instance, as an individual may not want to acknowledge their status as a 'victim', the WPB that they may have experienced may have been downplayed in the NAQ-R questionnaire (Sham, 2012). The notion of being a victim is closely linked to one's self esteem and self-image due to the various negative connotations that are associated with the 'label'. By virtue of this, feelings of ineptness and incompetence may arise, as the individual may view themselves in a pejorative light as they may not have coped with the situation in a manner they deemed fit or appropriate. Thus, as the NAQ-R specifically asked about their personal experiences of WPB, if teachers did not want to acknowledge that they themselves are victims, they may have answered the questionnaires in a certain way and is thus a possible limitation to the current study.

4.7 Future Recommendations

4.7.1 Longitudinal research

As aforementioned, as the current study was cross-sectional by nature, in order to determine the gravity of the effects of WPB on WE over time, it is recommended that a longitudinal study is conducted. As WPB is considered a complex and dynamic phenomenon, whereby effects are long lasting, it may be of particular value to understand how job characteristics affect this relationship over time. Additionally, if participants are examined over a certain period, unique insights may be drawn, which may further contribute to the overall body of knowledge.

4.7.2 Increased sample size

It is also recommended that future studies employ a larger sample. By doing so, the overall statistical power of the study may be increased as a result, which may reduce the type of error in the study. Additionally, by virtue of having more individuals within the sample, greater representation may be achieved.

4.7.3 Demographic Variables

As noted above, the primary researcher did not measure the gender of the sample. It is thus recommended that future studies include this demographic variable as it is possible that gender differences exist within the various variables that were measured, being WPB, WE, vigour, dedication, absorption, JD as well as JR. Additionally, by including gender in future studies, the overall generalisability of the sample may be improved, as the results obtained may be applicable to the broader population.

4.7.4 Qualitative studies

Additionally, it is further recommended that more qualitative studies surrounding WPB and its relationship to WE be conducted. As these types of studies provide rich insight into the experiences of victims, it may allow researchers to gain a deeper understanding of the WPB phenomenon and its effects on one's WE amongst teachers in the South African environment (Walliman, 2011).

4.7.5 Scope of Study

Future studies should also explore the notion of learner-on-teacher bullying as this is fast becoming a widespread phenomenon in school across South Africa (De Wet, 2020). By exploring this topic further, one will be able to obtain a greater understanding of the various demands that South African teachers currently face and how they may be mitigated. This is especially prevalent for learner-on-teacher bullying, as teachers have been subjected to incidents spanning from verbal attacks to physical encounters of bullying, such as excessive name-calling, comments of a sexual nature or even having objects thrown at them (Woudstra, 2018). Often, this has been captured and widely spread over social media (Bernstein & Batchelor, 2022). Overall, the negative acts experienced may contribute to the quality of education that is received by students, further hampering their opportunity for success (Adewusi, 2019). Thus, due to the negative implications that are associated with such incidents, the importance of further research in these particular areas of concern is salient. Parent-on-teacher bullying is also of importance. There is evidence within the grey literature and anecdotally that teachers are being bullied by parents who expect teachers to produce the highest possible results for their children, whether these children deserve the results or not. In an environment where it is seen to be crucial that matriculants gain access to tertiary institutions so as to secure good jobs going into the future, the increase of bullying of teachers by parents is on the rise and is a worthy area of investigation.

4.7.6 Post Covid-19 Implications

Lastly, as the secondary data used within this study was collected prior to the Covid-19 Pandemic, the current demands teachers may be facing may be different to the JD experienced in 2019. As Covid-19 brought about vast amount of change in both the personal and professional

lives of workers, it may be of particular interest to gain a deeper understanding of various job characteristics under pandemic and post-pandemic conditions, to understand the potential impact it may have on employees themselves (Chan et al., 2021). Thus, it is recommended that future studies examine the effects Covid-19 had on the relationship between WPB and WE, from a JDR perspective.

4.8. Conclusion

In conclusion, from the significant results obtained within the present study, we are able to have a greater understanding of the WPB-WE relationship among school teachers within South Africa. While JR was found to moderate the relationship between WPB and WE, as well as its subcomponents of vigour, dedication and absorption, the result was unexpected, as the relationship was strengthened. Thus, in instances where JR are high, the impact of WBP may worsen. As such, these results uniquely showcase how in certain instances, the resources that are provided in one's environment need to be disentangled from WPB itself. If the actual resources victims can use are provided by the very bullies themselves, the resources at hand would not be able to attenuate the strenuous effects of WPB but would rather make it worse. Additionally, the current study has also highlighted the unique circumstances of South African teachers. By virtue of the excessive demands teachers face within their workplace, the teachers may be so inured and used to working in stressful conditions, that the demands they encounter may not moderate the relationship between WPB and WE. Thus, the findings of the present study may be an important addition to the existing literature found within South Africa.

Reference List

Adewusi, A. G. (2021). Learner-teacher targeted bullying in South African high schools. *Emotional and Behavioural Difficulties, 26*(4), 412–424. https://doi.org/10.1080/13632752.2021.1984100

Aguinis, H., & Gottfredson, R. K. (2010). Best-practice recommendations for estimating interaction effects using moderated multiple regression. *Journal of Organizational Behavior, 31*(6), 776–786. https://doi.org/10.1002/job.686

Alexander, C., Wyatt-Smith, C., & Du Plessis, A. (2020). The role of motivations and perceptions on the retention of inservice teachers. *Teaching and Teacher Education, 96*, 1–12. https://doi.org/10.1016/j.tate.2020.103186

Amnesty International. (2020). *Broken and unequal: The state of education in South Africa*. https://www.amnesty.org/en/documents/afr53/1705/2020/en/

Ariza-Montes, A., Leal-Rodríguez, A. L., Rodríguez-Félix, L., & Albort-Morant, G. (2017). Can an internal locus of control and social support reduce work-related levels of stress and strain? A comparative study between Spanish owners and managers. *Journal of Occupational and Environmental Medicine*, *59*(9), 903–912. https://doi.org/10.1097/JOM.0000000000001096

Baillien, E., Rodriguez-Munoz, 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. https://doi.org/10.1108/02683940710733115

Bakker, A. B., & Demerouti, E. (2008). Towards a model of work engagement. *Career Development International, 13*(3), 209–223. https://doi.org/10.1108/13620430810870476

Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and work engagement: The JD–R approach. *Annual Review of Organizational Psychology and Organizational Behavior, 1,* 389–411. https://doi.org/10.1146/annurev-orgpsych-031413-091235

Bakker, A. B., & Derks, D. (2010). Positive occupational health psychology. In S. Leka, & J. Houdmont (Eds). *Occupational Health Psychology* (pp. 194–225). Blackwell Publishing.

Bakker, A. B., Hakanen, J. J., Demerouti, E., & Xanthopoulou, D. (2007). Job resources boost work engagement, particularly when job demands are high. *Journal of Educational Psychology, 99*(2), 274–284. https://doi.org/10.1037/0022-0663.99.2.274

Bakker, A. B., & Schaufeli, W. B. (2008). Positive organisational behaviour: Engaged employees in flourishing organisations. *Journal of Organisational Behaviour, 29*(2), 147–154. https://doi.org/10.1002/job.515

Balducci, C., Fraccaroli, F., & Schaufeli, W. B. (2011). Workplace bullying and its relation with work characteristics, personality and post-traumatic stress symptoms: An integrated model. *Anxiety, Stress and Coping, 24*(5),499–513. https://doi.org/10.1080/10615806.2011.555533

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

Beehr, T. A., Bowling, N. A., & Bennett, M. M. (2010). Occupational stress and failures of social support: When helping hurts. *Journal of Occupational Health Psychology, 15*(1), 45–59. https://doi.org/10.1037/a0018234

Bernstein, C., & Batchelor, T. (2022). Qualitative exploration of workplace demands, resources and bullying among teachers in South African schools: Implications for individual and organisational well-being. *South African Journal of Education*, *42*(2), 1–9. https://doi.org/10.15700/saje.v42n2a2081

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. http://doi.org/10.4102/sajhrm.v14i1.792

Biggs, A., Brough, P., & Drummond, S. (2017). Lazarus and Folkman's psychological stress and coping theory. In C. L. Cooper & J. C. Quick (Eds.), *The handbook of stress and health: A guide to research and practice* (pp. 351–364). Wiley Blackwell. https://doi.org/10.1002/9781118993811.ch21

Boren, J. P. (2014). The relationships between co-rumination, social support, stress, and burnout among working adults. *Management Communication Quarterly, 28*(1), 3–25. https://doi.org/10.1177/0893318913509283

Borst, R. T., Kruyen, P. M., Lako, C. J., & de Vries, M. S. (2020). The attitudinal, behavioural, and performance outcomes of work engagement: A comparative meta-analysis across the public, semipublic, and private sector. *Review of Public Personnel Administration*, *40*(4), 613–640. https://doi.org/10.1177/0734371X19840399

Boudrias, J.-S., Desrumaux, P., Gaudreau, P., Nelson, K., Brunet, L., & Savoie, A. (2011). Modeling the experience of psychological health at work: The role of personal resources,

social-organizational resources, and job demands. *International Journal of Stress Management, 18*(4), 372–395. https://doi.org/10.1037/a0025353

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

Breuer, J., & Elson, M. (2017). Frustration-aggression theory. In P. Sturmey (Ed.), *The Wiley Handbook of Violence and Aggression* (pp. 1–12). Wiley. https://doi.org/10.1002/9781119057574.whbva040

The Shocking State of Education in South Africa. (2022, October 15). Business Tech. https://businesstech.co.za/news/business/634271/south-africas-education-system-in-crisis/

Caesens, G., Nguyen, N., & Stinglhamber, F. (2019). Abusive supervision and organizational dehumanization. *Journal of Business and Psychology, 34*(5), 709–728. https://doi.org/10.1007/s10869-018-9592-3

Casely-Hayford, J., Bjorklund, C., Bergstrom, G., Lindqvist, P., & Kwak, L. (2022). What makes teachers stay? A cross-sectional exploration of the individual and contextual factors associated with teacher retention in Sweden. *Teaching and Teacher Education, 113,* 1–13. https://doi.org/10.1016/j.tate.2022.103664

Cassidy, T., McLoughlin, M., & McDowell, E. (2014). Bullying and health at work: The mediating roles of psychological capital and social support. *Work & Stress, 28*(3), 255–269. https://doi.org/10.1080/02678373.2014.927020

Chan, M.-k., Sharkey, J. D., Lawrie, S. I., Arch, D. A. N., & Nylund-Gibson, K. (2021). Elementary school teacher well-being and supportive measures amid COVID-19: An exploratory study. *School Psychology, 36*(6), 533–545. https://doi.org/10.1037/spq0000441

Chiong, C., Menzies, L., & Parameshwaran, M. (2017). Why do long-serving teachers stay in the teaching profession? Analysing the motivations of teachers with 10 or more years' experience in England. *British Educational Research Journal, 43*(6), 1–28. https://doi.org/10.1002/berj.3302

Chung Y. W. (2020). The Relationship between Workplace ostracism, TMX, task interdependence, and task performance: A moderated mediation model. *International Journal of Environmental Research and Public Health, 17*(12), 328–349. https://doi.org/10.3390/ijerph17124432

Coetzee, M., & van Dyk, J. (2018). Workplace bullying and turnover intention: Exploring work engagement as a potential mediator. *Psychological Reports, 121*(2), 375–392. https://doi.org/10.1177/0033294117725073

Coetzer, W. J., & Rothmann, S. (2007). A psychometric evaluation of measures of affective well-being in an insurance company. *South African Journal of Industrial Psychology, 33*(2), 7–15. https://doi.org/10.4102/sajip.v33i2.372

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin, 98*(2), 310–357. https://doi.org/10.1037/0033-2909.98.2.310

Coyne, I., Seigne, E., & Randall, P. (2000). Predicting workplace victim status from personality. *European Journal of Work and Organizational Psychology, 9*(3), 335–349. https://doi.org/10.1080/135943200417957

Crawford, E. R., LePine, J. A., & Rich, B. L. (2010). Linking job demands and resources to employee engagement and burnout: A theoretical extension and meta-analytic test. *Journal of Applied Psychology, 95*(5), 834–848. https://doi.org/10.1037/a0019364

Cunniff, L., & Mostert, K. (2012). Prevalence of workplace bullying of South African employees. *SA Journal of Human Resource Management, 10*(1), 1–15. https://doi.org/10.4102/sajhrm.v10i1.450

Davids, N., & Waghid, Y. (2020). Gender under-representation in teaching: A casualty of the feminisation of teaching? *South African Journal of Higher Education*, *34*(3), 1–12. https://doi.org/1-.20853/34-3-4045

Day, C., & Hong, J. (2016). Influences on the capacities for emotional resilience of teachers in schools serving disadvantaged urban communities: Challenges of living on the edge. *Teaching and Teacher Education*, *59*, 115–125. https://doi.org/10.1016/j.tate.2016.05.015

Deelstra, J. T., Peeters, M. C. W., Schaufeli, W. B., Stroebe, W., Zijlstra, F. R. H., & van Doornen, L. P. (2003). Receiving instrumental support at work: When help is not welcome. *Journal of Applied Psychology, 88*(2), 324–331. https://doi.org/10.1037/0021-9010.88.2.324

De Braine, R., & Roodt, G. (2011). The Job Demands- Resources model as predictor of work identity and work engagement: A comparative analysis. *SA Journal of Industrial Psychology, 37*(2), 1–11. https://doi.org/10.4102/sajip.v37i2.889

de Jonge, J., & Dormann, C. (2006). Stressors, resources, and strain at work: A longitudinal test of the triple-match principle. *Journal of Applied Psychology, 91*(6), 1359–1374. https://doi.org/10.1037/0021-9010.91.5.1359

De Vos, J. (2013). *Teachers' experiences of workplace bullying and its effects on health: Developing a multilevel intervention programme* [Unpublished Doctoral Dissertation]. North-West University.

De Vos, J., & Kirsten, G. C. J. (2015). The nature of workplace bullying experienced by teachers and the biopsychosocial health effects. *South African Journal of Education, 35*(3), 1–9. https://doi.org/10.15700/saje.v35n3a1138

De Wet, C. (2010). Victims of educator-targeted bullying: A qualitative study. *South African Journal of Education, 30*(2), 189–201. https://doi.org/10.4314/saje.v30i2.55481

De Wet, C. (2011). Educator-on-educator workplace bullying: A phenomenological study. *Africa Education Review, 8*(3), 450–466. https://doi.org/10.1080/18146627.2011.618654

De Wet, C. (2020). Social media commenters' understanding of the antecedents of teacher-targeted bullying. *South African Journal of Education, 40*(3), 1–11. https://doi.org/10.15700/saje.v40n3a1799

De Wet, C., & Jacobs, L. (2013). South African teachers' exposure to workplace bullying. *The Journal for Transdisciplinary Research in Southern Africa, 9*(3), 446–464. https://doi.org/10.4102/td.v9i3.190

Dicke, T., Stebner, F., Linninger, C., Kunter, M., & Leutner, D. (2018). A longitudinal study of teachers' occupational well-being: Applying the job demands-resources model. *Journal of Occupational Health Psychology, 23*(2), 262–277. https://doi.org/10.1037/ocp0000070

Dijkstra, M. T. M., Beersma, B., & Evers, A. (2011). Reducing conflict-related employee strain: The benefits of an internal locus of control and a problem-solving conflict management strategy. *Work & Stress, 25*(2), 167–184. https://doi.org/10.1080/02678373.2011.593344

Einarsen, S. (2000). Harassment and bullying at work: A review of the Scandinavian approach. *Aggression and Violent Behaviour, 5*(4), 379–401. https://doi.org/10.1016/S1359-1789(98)00043-3

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 & Stress, 23*(1), 24–44. https://doi.org/10.1080/02678370902815673

Einarsen, S., Hoel, H., Zapf, D., & Cooper, C. (2003). The concept of bullying at work: The European Perspective. In S. Einarsen, H. Hoel, D. Zapf, & C. Cooper (Ed.), *Bullying and Emotional Abuse in the Workplace: International perspectives in research and practice* (pp. 3–31). Taylor & Francis.

Einarsen, S., & Nielsen, M. B. (2014). Workplace bullying as an antecedent of mental health problems: A five-year prospective and representative study. *International Archives of Occupational and Environmental Health, 88*(2), 131–142. https://doi.org/10.1007/s00420-014-0944-7

Einarsen, S., & Mikkelson, E. G. (2003). Individual effects of exposure to bullying at work. In S. Einarsen, H. Hoel, D. Zapf, & C. Cooper (Ed.), *Bullying and Emotional Abuse in the Workplace: International perspectives in research and practice* (pp. 3–31). Taylor & Francis.

Einarsen, S., Skogstad, A., Rorvik, E., Lande, A. B., & Nielsen, M. B. (2016). Climate for conflict management, exposure to workplace bullying and work engagement: a moderated mediation analysis. *The International Journal of Human Resources Management, 29*(3), 1–22. http://doi.org/10.1080/09585192.2016.1164216

Essop, R. & Mansfield, M. (2022). *Knowledge is power: Real-time data on school dropout needed*. News24. https://www.news24.com/news24/opinions/analysis/analysis-knowledge-is-power-real-time-data-on-school-dropout-needed-20220322

Finchilescu, G., Bernstein, C., & Chihambakwe, D. (2018). The impact of workplace bullying in the Zimbabwean nursing environment: Is social support a beneficial resource in the bullying–well-being relationship? *South African Journal of Psychology*, *49*(1), 83–96. https://doi.org/10.1177/0081246318761735

Folkman, S. (1984). Personal control and stress and coping processes: A theoretical analysis. *Journal of Personality and Social Psychology, 46*(4), 839–852. https://doi.org/10.1037/0022-3514.46.4.839

Folkman, S. (2012). Stress, health and coping: Synthesis, commentary and future directions. In S. Folkman (Eds.), *The Oxford Handbook of Stress, Health and Coping* (pp.453–463). Oxford University Press. https://doi.org/10.1093/oxfordhb/9780195375343.013.0022

Folkman, S., Lazarus, R. S., Gruen, R. J., & DeLongis, A. (1986). Appraisal, coping, health status and psychological symptoms. *Journal of Personality and Social Psychology, 50*(3), 571–579. https://doi.org/10.1037//0022-3514.50.3.571

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. https://doi.org/10.1177/0018726709349518

Francioli, L., Høgh, A., Conway, P., Costa, G., Karasek, R. & Hansen, Å (2016). Do personal dispositions affect the relationship between psychosocial working conditions and workplace bullying? *Ethics & Behaviour*, *26*(6), 451–469. https://doi.org/10.1080/10508422.2015.1043367

Gentry, W., Lambert, T., & Scott, M. (2019). The moderating effect of age on the relationship between coworker support and behaviours that predict derailment. *Journal of Managerial Issues,4,* 84–102.

Glaso, L., Bele, E., Nielsen, M. B., & Einarsen, S. (2011). Bus drivers' exposure to bullying at work: An occupation specific approach. *Scandinavian Journal of Psychology, 52*(5), 484–493. https://doi.org/10.1111/j.1467-9450.2011.00895.x

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

Glazer, S., & Amren, M. (2018). Culture's implications on support as a moderator of the job stressor–outcome relationship. *International Journal of Stress Management, 25*(1), 7–25. https://doi.org/10.1037/str0000087

Gu, Q., & Day, C. (2013). Challenges to Teacher Resilience: Conditions count. *British Educational Research Journal*, 39, 22–44. https://doi.org/10.1080/01411926.2011.623152

Hakanen, J., Bakker, A.B., & Schaufeli, W. B. (2006). Burnout and work engagement among teachers. *Journal of School Psychology, 43*(6), 495–513. https://doi.org/10.1016/j.jsp.2005.11.001

Hakanen, J. J., Bakker, A. B., & Turunen, J. (2021). The relative importance of various job resources for work engagement: A concurrent and follow-up dominance analysis. *BRQ Business Research Quarterly, 0*(0), 1–17. https://doi.org/10.1177/23409444211012419

Hallberg, L. R. M., & Strandmark, M. K. (2006). Health consequences of workplace bullying: Experience from the perspective of employees in the public service sector. *International Journal of Qualitative Studies on Health and Well-being, 1*(2), 109–119. https://doi.org/10.1080/17482620600555664

Hamre, K. V., Einarsen, S. V., Hoprekstad, Ø. L., Pallesen, S., Bjorvatn, B., Waage, S., Moen, B. E., & Harris, A. (2020). Accumulated long-term exposure to workplace bullying impairs

psychological hardiness: A five-year longitudinal study among nurses. *International Journal of Environmental Research and Public Health*, *17*(7), 2587. https://doi.org/10.3390/ijerph17072587

Hansen, D. T., & Quek, Y. (2022). The call to teach and the ethics of care: A dynamic educational crossroads. *Journal of Curriculum Studies,* 1–13. https://doi.org/10.1080/00220272.2022.2143243

Harter, J. K., Schmidt, F. L., & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: A meta-analysis. *Journal of Applied Psychology, 87*(2), 268–279. https://doi.org/10.1037/0021-9010.87.2.268

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

Herkes, J., Churruca, K., Ellis, L. A., Pomare, C., & Braithwaite, J. (2019). How people fit in at work: Systematic review of the association between person-organisation and person-group fit with staff outcomes in healthcare. *BMJ Open, 9*(5), 1–9. https:/.doi. org/10.1136/bmjopen-2018- 026266

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. https://doi.org/10.1111/1464-0597.00062

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. https://doi.org/10.1146/annurev-orgpsych-032117-104640

Hoel, H., Einarsen, S., & Cooper, C. (2003). Organisational effects of bullying. In S. Einarsen, H. Hoel, D. Zapf, & C. Cooper (Ed.), *Bullying and Emotional Abuse in the Workplace: International perspectives in research and practice.* (pp. 3–31). Taylor & Francis.

Hoole, C., & Bonnema, J. (2015). Work engagement and meaningful work across generational cohorts. *SA Journal of Human Resource Management, 13*(1), 1–11. https://doi.org/10.4102/sajhrm.v13i1.681

Hu, Q., Schaufeli, W. B., & Taris, T. W. (2011). The job demands–resources model: An analysis of additive and joint effects of demands and resources. *Journal of Vocational Behavior, 79*(1), 181–190. https://doi.org/10.1016/j.jvb.2010.12.009

Huang, X., Wright, R. P., Chiu, W. C. K., & Wang, C. (2008). Relational schemas as sources of evaluation and misevaluation of leader-member exchanges: Some initial evidence. *The Leadership Quarterly, 19*(3), 266–282. https://doi.org/10.1016/j.leaqua.2008.03.003

Jackson, L., & Rothmann, S. (2005). Work-related well-being of educators in a district of the North-West Province. *Perspectives of Education, 23*(3), 107–122.

Jacobs, L., & De Wet, C. (2018). The complexity of teacher-targeted workplace bullying: An analysis for policy. *Journal for Juridical Science, 43*(2), 53–78. https://doi.org/10.18820/24150517/JJS43.i2.3

Jacobs, L., & Teise, K. L. G. (2019). Educators' subjective experiences of workplace bullying within a perceived neoliberalist education system. *South African Journal of Education, 39*(4), 1–9. https://doi.org/10.15700/saje.v39n4a1868

Jóhannsdóttir, H. L., & Olafsson, 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. https://doi.org/10.1080/03069880410001723549

Kahn, R. L., & Byosiere, P. (1992). Stress in organizations. In M. D. Dunnette & L. M. Hough (Eds.), *Handbook of industrial and organizational psychology* (pp. 571–650). Consulting Psychologists Press.

Kivimaki, M., Virtanen, M., Vartia, M., Elovainio, M., Vahtera, J., & Keltikangas-Jarvinen, L. (2003). Workplace bullying and the risk of cardiovascular disease and depression. *Occupational and Environmental Medicine, 60*(10), 779–783. https://doi.org/10.1136/oem.60.10.779

Kohl, H. (1984). *Growing minds: On becoming a teacher*. Harper & Row Publishers.

Kotzé, M., & Nel, P. (2019). Job and personal resources as mediators in the relationship between iron-ore mineworkers' job demands and work engagement. *SA Journal of Human Resource Management*, *17*, 1–9. https://doi.org/10.4102/sajhrm.v17i0.1183

Kristof, A. L. (1996). Person-organization fit: An integrative review of its conceptualizations, measurement, and implications. *Personnel Psychology, 49*(1), 1–49. https://doi.org/10.1111/j.1744-6570.1996.tb01790.x

Krumpal, I. (2013). Determinants of social desirability bias in sensitive surveys: A literature review. *Quality & Quantity, 47*, 2025–2047 (2013). https://doi.org/10.1007/s11135-011-9640-9

Laerd Statistics. (2018a). Pearson Product Moment Correlation. https://statistics.laerd.com/statistical-guides/pearson-correlation-coefficient-statistical-guide.php

Laerd Statistics. (2018b). Moderator Analysis with a Dichotomous Moderators using SPSS. https://statistics.laerd.com/spss-tutorials/dichotomous-moderator-analysis-using-spss-statistics.php

Laher, S. (2016). Ostinato rigore: Establishing methodological rigour in quantitative research. *South African Journal of Psychology, 46*(3), 316–327. https://doi.org/10.1177/0081246316649121

Laher, S. & Botha, A. (2012). Methods of sampling. In C. Wagner, B. Kawulich & M. Garner (Eds.), *Doing social research: A global context* (pp.86–100). London: McGraw-Hill.

Lakey, B., & Cohen, S. (2000). Social support theory and measurement. In S. Cohen, L. G. Underwood, & B. H. Gottlieb (Eds.), *Social support measurement and intervention: A guide for health and social scientists* (pp. 29–52). Oxford University Press. https://doi.org/10.1093/med:psych/9780195126709.003.0002

Li, P., Taris, T. W., & Peeters, M. C. W. (2020). Challenge and hindrance appraisals of job demands: One man's meat, another man's poison? *Anxiety, Stress & Coping: An International Journal, 33*(1), 31–46. https://doi.org/10.1080/10615806.2019.1673133

Lindeque, M. (2021, January). *"We are not invincible"- Teachers fearful ahead of reopening of schools.* Eyewitness News. https://ewn.co.za/2021/01/11/we-are-not-invincible-teachers-fearful-ahead-of-reopening-of-schools

Luthans, F., & Youssef, C. M. (2007). Emerging positive organisational behaviour. *Journal of Management, 33*(3), 321–349. https://doi.org/10.1177/0149206307300814

Magee, C., Gordon, R., Robinson, L., Caputi, P., & Oades, L. (2017). Workplace bullying and absenteeism: Mediating roles of poor health and work engagement. *Human Resource Management Journal, 27*(3), 318–334. https://doi.org/10.1111/1748-8583.12156

Marais, P. (2016). "We can't believe what we see": Overcrowded classrooms through the eyes of student teachers. *South African Journal of Education, 36*(2), 1–10. https://doi.org/10.15700/saje.v36n2a1201

Masweneng, K. (2021, January 26). *Lesufi 'shocked' over R431m dodgy spending to sanitize Gauteng schools.* Times Live. https://www.timeslive.co.za/news/south-africa/2021-01-26-lesufi-shocked-over-r431m-dodgy-spending-to-sanitise-gauteng-schools/

Mathieu, M., Eschleman, K. J., & Cheng, D. (2019). Meta-analytic and multiwave comparison of emotional support and instrumental support in the workplace. *Journal of Occupational Health Psychology, 24*(3), 387–409. https://doi.org/10.1037/ocp0000135

Matthiesen, S. B., & Einarsen, S. (2010). Bullying in the workplace: Definition, prevalence, antecedents and consequences. *International Journal of Organisation Theory and Behaviour, 13*(2), 202–248. https://doi.org/10.1108/IJOTB-13-02-2010-B004

Mazzetti, G., Robledo, E., Vignoli, M., Topa, G., Guglielmi, D., & Schaufeli, W. B. (2021). Work Engagement: A meta-analysis using the Job Demands-Resources Model. *Psychological Reports, 0*(0), 1–38. https://doi.org/10.1177/00332941211051988

McIlroy, T. D., Parker, S. L., & McKimmie, B. M. (2021). The effects of unanswered supervisor support on employees' well-being, performance, and relational outcomes. *Journal of Occupational Health Psychology, 26*(1), 49–68. https://doi.org/10.1037/ocp0000270

McKay, T., Mafanya, M., & Horn, A. C. (2018). Johannesburg's inner city private schools: The teacher's perspective. *South African Journal of Education, 38*(3), 1–11. https://doi.org/10.15700/saje.v38n3a1557

Merilainen, M., Koiv, K., & Honkanen, A. (2019). Bullying effects on performance and engagement among academics. *Employee Relations: The International Journal, 41*(6), 1205–1223. https://doi.org/10.1108/ER-11-2017-0264

Middleton, S. (2018). *Toxic leadership, social support and individual and organisational outcomes* [Unpublished master's thesis]. University of the Witwatersrand.

Modide, K. (2020, March). *Covid-19: Could the school year be lost for SA pupils?* Eyewitness News. https://ewn.co.za/2020/03/23/covid-19-could-the-school-year-be-lost-for-sa-pupils

Mthethwa, A. (2020, February 13). *Education in South Africa: Broken and unequal*. Daily Maverick. https://www.dailymaverick.co.za/article/2020-02-13-education-in-south-africa-broken-and-unequal/

Muhonen, T., Jonsson, S., & Backstrom, M. (2017). Consequences of cyberbullying behaviour in working life: The mediating roles of social support and social organisational climate. *International Journal of Workplace Health Management, 10*(5), 376–390. https://doi.org/10.1108/IJWHM-10-2016-0075

Namie, G., & Namie, R. (2004). Workplace bullying: How to address America's silent epidemic. *Employee Rights and Employee Policy Journal, 8*(2), 315–334. https://heinonline.org/HOL/LandingPage?handle=hein.journals/emplrght8&div=15&id=&page=

Nel, E. C. (2019). The impact of workplace bullying on flourishing: The moderating role of emotional intelligence. *SA Journal of Industrial Psychology, 45*(0), 1–9. https://doi.org/10.4102/sajip.v45i0.1603

Neuman, W. (2014) Social Research Methods: Qualitative and Quantitative Approaches. Pearson, Essex, UK.

Nielsen, M. B., & Einarsen, S. (2012). Outcomes of exposure to workplace bullying: A meta-analytic review. *Work & Stress: An International Journal of Work, Health & Organisations, 26*(4), 309–332. https://doi.org/10.1080/02678373.2012.734709

Nielsen, M. B., Christensen, J. O., Finne, L. B., & Knardahl, S. (2020). Workplace bullying, mental distress, and sickness absence: the protective role of social support. *International*

Archives of Occupational and Environmental Health, *93*(1), 43–53. https://doi.org/10.1007/s00420-019-01463-y

Nielsen, M. B., & Einarsen, S. (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 Behaviour, 42*, 71-–3. https://doi.org/10.1016/j.avb.2018.06.007

Nielsen, M. B., Glaso, L., & Einarsen, S. (2017). Exposure to workplace bullying and the Five Factor Model of personality: A meta-analysis. *Personality and Individual Differences, 104,* 195–206. https://doi.org/10.1016/j.paid.2016.08.015

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

Pallesen, S., Nielsen, M. B., Mageroy, 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), 1–7. https://doi.org/*10.3389/fpsyg.2017.01045*

Park, J. H., & Ono, M. (2016). Effects of workplace bullying on work engagement and health: The mediating role of job insecurity. *The International Journal of Human Resource Management, 28*(22), 1–24. https://doi.org/10.1080/09585192.2016.1172873

Pauksztat, B., Salin, D. & Kitada, M. (2022). Bullying behavior and employee well-being: How do different forms of social support buffer against depression, anxiety and exhaustion? *International Archives of Occupational and Environmental Health, 95*, 1633–1644. https://doi.org/10.1007/s00420-022-01844-w

Phelan, J. E., & Rudman, L. A. (2010). Prejudice toward female leaders: Backlash effects and women's impression management dilemma. *Social and Personality Psychology Compass, 4*(10), 807–820. https://doi.org/10.1111/j.1751-9004.2010.00306.x

Pitsoe, V. J. (2013). Teacher attrition in South Africa: Trends, challenges and prospects. *Journal of Social Sciences, 36*(3), 309-318. https://doi.org/10.1080/09718923.2013.11893197

Rai, A., & Agarwal, U. A. (2016). Workplace bullying: A review and future research directions. *South Asian Journal of Management, 23(*3). 27–56.

Rai, A., & Agarwal, U. A. (2017). Linking workplace bullying and work engagement: The mediating role of psychological contract violation. *South Asian Journal of Human Resources Management, 4*(1), 1–30. https://doi.org/10.1177/2322093717704732

Rai, A., & Agarwal, U. A. (2019). Examining the relationship between personality traits and exposure to workplace bullying. *Global Business Review*, *20*(4), 1069–1087. https://doi.org/10.1177/0972150919844883

Reknes, I., Harris, A., & Einarsen, S. (2018). The role of hardiness in the bullying-mental health relationship. *Occupational medicine, 68*(1), 64–66. https://doi.org/10.1093/occmed/kqx183

Rodriguez-Munoz, A., Baillien, E., De Witte, H., Moreno-Jimenez, B., & Pastor, J. C. (2009). Cross-lagged relationships between workplace bullying, job satisfaction, and engagement: Two longitudinal studies. *Work & Stress, 23*(3), 225–243. https://doi.org/10.1080/02678370903227357

Rosnow, R., & Rosenthal, R. L. (2008). *Essentials of behavioural research: Methods and data analysis* (3rd Ed.). New York: McGraw-Hill.

Rothmann, S., & Jordan, G. M. E. (2006). Job demands, job resources and work engagement of academic staff in South African higher education institutions. *SA Journal of Industrial Psychology, 32*(4), 87–96. https://doi.org/10.4102/sajip.v32i4.247

Rothmann, S., Mostert. K., & Strydom, M. (2006). A psychometric evaluation of the job demands-resources scale in South Africa. *South African Journal of Industrial Psychology, 32*(4), 76–86. https://doi.org/10.4102/sajip.v32i4.239

Salkind, N.J. (2017). *Exploring research (9th ed.).* Pearson.

Schaufeli, W. B, & Bakker, A. B. (2004a). Job demands, job resources, and their relationship with burnout and engagement: A multi-sample study. *Journal of Organisational Behaviour, 25*(3), 293–315. https://doi.org/10.1002/job.248

Schaufeli, W.B, & Bakker, A. B. (2004b). *Utrecht Work Engagement Scale: Preliminary Manual.* https://www.wilmarschaufeli.nl/publications/Schaufeli/Test%20Manuals/Test_manual_UWES_English.pdf

Schaufeli, W. B., Salanova, M., Gonzalez-Roma, V., & Bakker, A. B. (2002). The measurement of engagement and burnout. *Journal of Happiness Studies, 3*(1), 71–92. https://doi.org/10.1023/A:1015630930326

Segalo, L., & Rambuda, A. (2018). South African public-school teachers' views on right to discipline learners. *SA Journal of Education, 38*(2), 2076–3433. https://doi.org/10.15700/saje.v38n2a1448

Semmer, N. K., Elfering, A., Jacobshagen, N., Perrot, T., Beehr, T. A., & Boos, N. (2008). The emotional meaning of instrumental social support. *International Journal of Stress Management, 15*(3), 235–251. https://doi.org/10.1037/1072-5245.15.3.235

Sham, C. (2012). *The relationship between workplace bullying, social support and organisational and individual wellbeing* [Unpublished master's thesis]. University of the Witwatersrand.

Shrout, P. E., Herman, C. M., & Bolger, N. (2006). The costs and benefits of practical and emotional support on adjustment: A daily diary study of couples experiencing acute stress. *Personal Relationships, 13*(1), 115–134. https://doi.org/10.1111/j.1475-6811.2006.00108.x

Solomon, D. (2021). *Workplace bullying among teachers: a Job Demands-Resources Perspective* [Unpublished master's thesis]. University of the Witwatersrand.

Sonnentag, S., & Frese, M. (2013). Stress in organizations. In N. W. Schmitt, S. Highhouse, & I. B. Weiner (Eds.), *Handbook of psychology: Industrial and organizational psychology* (pp. 560–592). John Wiley & Sons, Inc.

South Africa's "real" matric pass rate is 44%. (2021, February 22). My Broadband. https://mybroadband.co.za/news/government/387414-south-africas-real-matric-pass-rate-is-44.html?fbclid=IwAR1xEIoQjXWnCnbF8jtxRNvFIIjbmYN9qE4VPpSV-ic_x1rSI2sC5tNyCjk

Teo, S. T. T., Nguyen, D., Trevelyan, F., Lamm, F., & Boocock, M. (2021). Workplace bullying, psychological hardiness, and accidents and injuries in nursing: A moderated mediation model. *PloS one*, *16*(1), 1–15. https://doi.org/10.1371/journal.pone.0244426

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

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), 413–424. https://doi.org/10.1037/a0037728

Van den Brande, W., Baillien, E., Vander Elst, T., De Witte, H., & Godderis, L. (2020). Coping styles and coping resources in the work stressors-workplace bullying relationship: A two wave study. *Work & Stress, 34*(4), 323–341. https://doi.org/10.1080/02678373.2019.1666433

Van den Brande, W., Baillien, E., Vander Elst, T., De Witte, H., Van den Broeck, A., & Godderis, L. (2017). Exposure to Workplace Bullying: The role of coping strategies in dealing with work stressors. *BioMed Research International,* 2017, 1019529. https://doi.org/10.1155/2017/1019529

Van den Brande, W., Bernstein, C., Reknes, I., & Baillien, E. (2018). The moderating effects of coping mechanisms and resources in the context of workplace bullying emotional abuse and harassment. In P. D'Cruz & E. Noronha (Eds.), *Pathways of Job-related Negative Behaviour, Handbooks of Workplace Bullying, Emotional Abuse and Harassment* (pp.1–24). Springer. https://doi.org/10.1007/978-981-10-6173-8_7-1

Van den Broeck, A., Baillien, E., & De Witte, H. (2011). Workplace bullying: A perspective from the Job Demands-Resources Model. *SA Journal of Industrial Psychology, 37*(2), 1–12. https://doi.org/10.4102/sajip.v37i2.879

van den Tooren, M., & de Jonge, J. (2010). The role of matching job resources in different demanding situations at work: A vignette study. *Journal of Occupational and Organizational Psychology, 83*(1), 39–54. https://doi.org/10.1348/096317909X462257

van den Tooren, M., & de Jonge, J. (2011). Job resources and regulatory focus as moderators of short-term stressor-strain relations: A daily diary study. *Journal of Personnel Psychology, 10*(3), 97–106. https://doi.org/10.1027/1866-5888/a000042

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 Sciences, 41*(1),65–77. https://doi.org/10.1080/09718923.2015.11893395

Vranjes, I., Elst, T. V., Griep, Y., De Witte, H., & Baillien, E. (2022). Being the bigger person: Investigating the relationship between workplace bullying exposure and enactment and the role of coping in ending the bullying spiral, *Work & Stress*, *36*(2), 183–201. https://doi.org/10.1080/02678373.2021.1969477

Tepper, B. J., Duffy, M. K., & Shaw, J. D. (2001). Personality moderators of the relationship between abusive supervision and subordinates' resistance. *Journal of Applied Psychology, 86*(5), 974–983. https://doi.org/10.1037/0021-9010.86.5.974

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), 413–424. https://doi.org/10.1037/a0037728

Walliman, N. (2006). *Social research methods*. SAGE Publications, Ltd. https://doi.org/10.4135/9781849209939

West, J., & Meier, C. (2020). Overcrowded classrooms – The Achilles heel of South African education? *South African Journal of Childhood Education, 10*(1), 1–10. https://doi.org/10.4102/sajce.v10i1.617

Woudstra, M. H., Janse van Rensburg, E., Visser, M. & Jordaan, J. (2018). Learner-to-teacher bullying as a potential factor influencing teachers' mental health. *South African Journal of Education*, *38*(1), 1–10. https://doi.org/10.15700/saje.v38n1a1358

Wu, T.-Y., & Hu, C. (2009). Abusive supervision and employee emotional exhaustion: Dispositional antecedents and boundaries. *Group & Organization Management, 34*(2), 143–169. https://doi.org/10.1177/1059601108331217

Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2007). The role of personal resources in the job demands-resource model. *International Journal of Stress Management, 14*(2), 121–141. https://doi.org/10.1037/1072-5245.14.2.121

Xanthopoulou, D., Bakker, A. B., Demerouti, E., & Schaufeli, W. B. (2009). Reciprocal relationships between job resources, personal re- sources, and work engagement. *Journal of Vocational Behavior, 74*, 235–244. https://.doi.org/10.1016/j.jvb.2008.11.003

Xanthopoulou, D., Bakker, A. B, & Fischbach, A. (2013). Work engagement among employees facing emotional demands: The role of personal resources. *Journal of Personnel Psychology, 12*(2), 74–84. https://doi.org/10.1027/1866-5888/a000085

Xanthopoulou, D., Bakker, A. B, Demerouti, E., & Schaufeli, W. B. (2012). A diary study on the happy worker: How job resources relate to positive emotions and personal resources. *European Journal of Work and Organisational Psychology, 21*(4), 489–517. https://doi.org/10.1080/1359432X.2011.584386

Yun, S., & Kang, J. (2018). Influencing Factors and Consequences of Workplace Bullying among Nurses: A Structural Equation Modeling. *Asian nursing research*, *12*(1), 26–33. https://doi.org/10.1016/j.anr.2018.01.004

Zapf, D., Einarsen, S., Hoel, H., & Vartia, M. (2003). Empirical findings of bulling in the workplace. In S. Einarsen, H. Hoel, D. Zapf, & C. Cooper (Ed.), *Bullying and Emotional Abuse in the Workplace: International perspectives in research and practice.* (pp. 3-31). Taylor & Francis

Appendices

Appendix A- Questionnaire

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.

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?				

Work Engagement Scale

Please circle the one number for each question that comes closest to reflecting how often the statement occurs. Please make sure you answer all 17 questions.

		Never	Almost Never	Rarely	Sometimes	Often	Very Often	Always
1	At my work, I feel bursting with energy.	0	1	2	3	4	5	6
2	I find the work that I do full of meaning and purpose.	0	1	2	3	4	5	6
3	Time flies when I am working.	0	1	2	3	4	5	6
4	At my job, I feel strong and vigorous.	0	1	2	3	4	5	6
5	I am enthusiastic about my job.	0	1	2	3	4	5	6
6	When I am working, I forget everything else around me.	0	1	2	3	4	5	6
7	My job inspires me.	0	1	2	3	4	5	6
8	When I get up in the morning, I feel like going to work.	0	1	2	3	4	5	6

9	I feel happy when I am working intensely.	0	1	2	3	4	5	6
10	I am proud of the work that I do.	0	1	2	3	4	5	6
11	I am immersed in my work.	0	1	2	3	4	5	6
12	I can continue working for very long periods at a time.	0	1	2	3	4	5	6
13	To me, my job is challenging.	0	1	2	3	4	5	6
14	I get carried away when I am working.	0	1	2	3	4	5	6
15	At my job, I am very resilient, mentally.	0	1	2	3	4	5	6
16	It is difficult to detach myself from my job.	0	1	2	3	4	5	6
17	At my work, I always persevere, even when things do not go well.	0	1	2	3	4	5	6

Negative Acts Questionnaire-Revised (NAQ-R)

Please circle the number for each question that comes closest to reflecting how often 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

Appendix B - 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 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 C- Primary Data Collection HREC Ethics Approval

Research Office

HUMAN RESEARCH ETHICS COMMITTEE (NON-MEDICAL)
R14/40 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.**

Signature

12 / 07 / 18
Date

PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

Appendix D - 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.

<u>Process of survey distribution</u>

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 well-being 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 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
Office Phone 011 7174538
Paballo Lepota 011 7174513

Toni Batchelor
750771 @students.wits.ac.za
Cell Phone: 0823022940

HREC number : H18/06/07

Appendix F - Letter of Permission for use of secondary data

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 Tamsyn Ross 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 G – HREC Ethics Clearance

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/21/06W1**
PROJECT TITLE:	Workplace Bullying and Work Engagment Amongst Teachers: A Job Demands Resources Perspective.
INVESTIGATOR	Ross Tamsyn (871835)
SCHOOL/DEPARTMENT OF INVESTIGATOR	SHCD/Psychology
DATE CONSIDERED	20 June 2021
DECISION OF THE COMMITTEE	Approved unconditionally
RISK LEVEL	No Risk
EXPIRY DATE	31 December 2023

ISSUE DATE OF CERTIFICATE 26 June 2021 **CHAIRPERSON** _____
(Dr Colleen Bernstein)

cc: Prof. Colleen Bernstein (Supervisor)

DECLARATION OF INVESTIGATOR

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

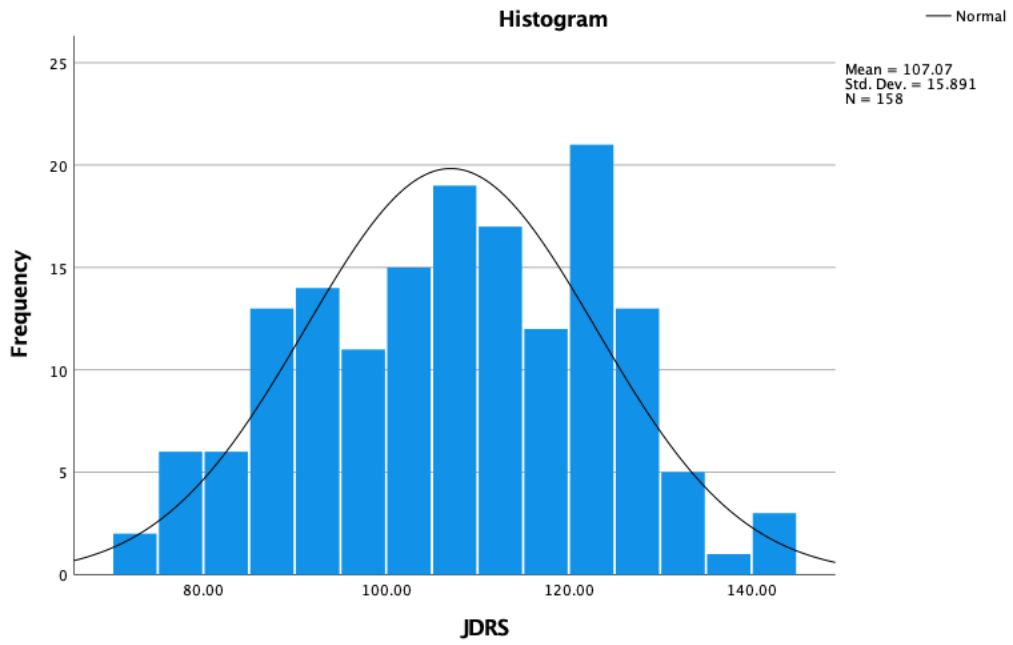
I fully understand the conditions under which I am are authorized to carry out the abovementioned research and I guarantee to ensure compliance with these conditions. Should any departure to be contemplated from the research procedure as approved I/we undertake to resubmit the protocol to the Committee.

_____ _____/_____/_____
Signature **Date**

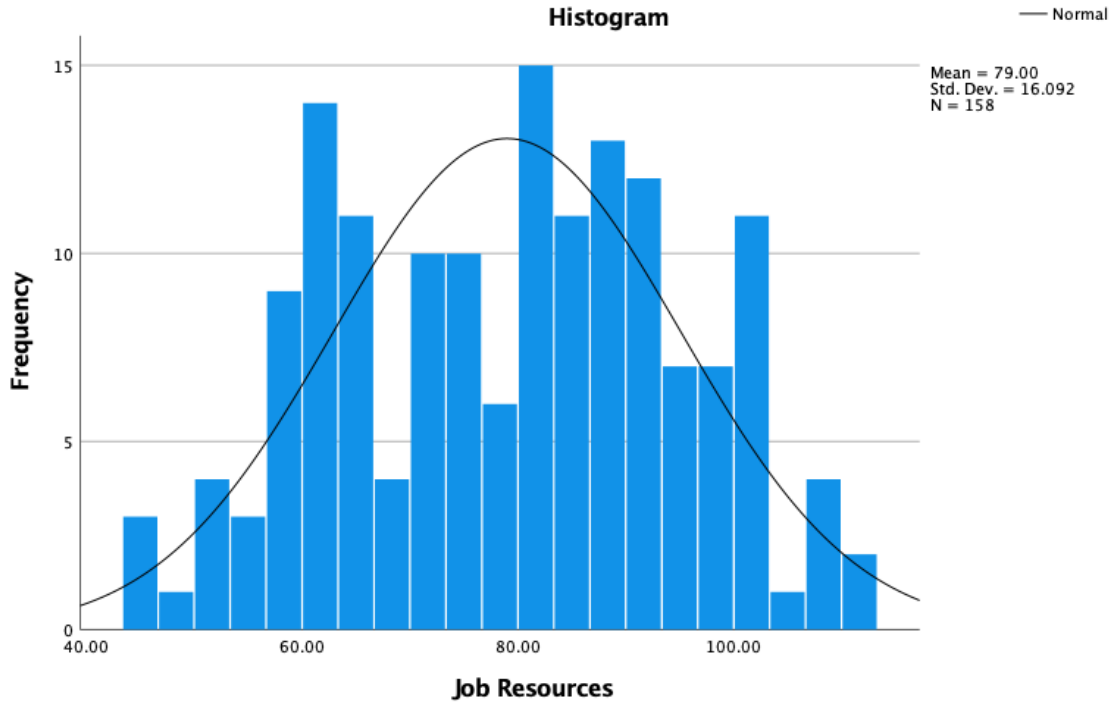
PLEASE QUOTE THE PROTOCOL NUMBER ON ALL ENQUIRIES

Appendix H – Assumption Testing

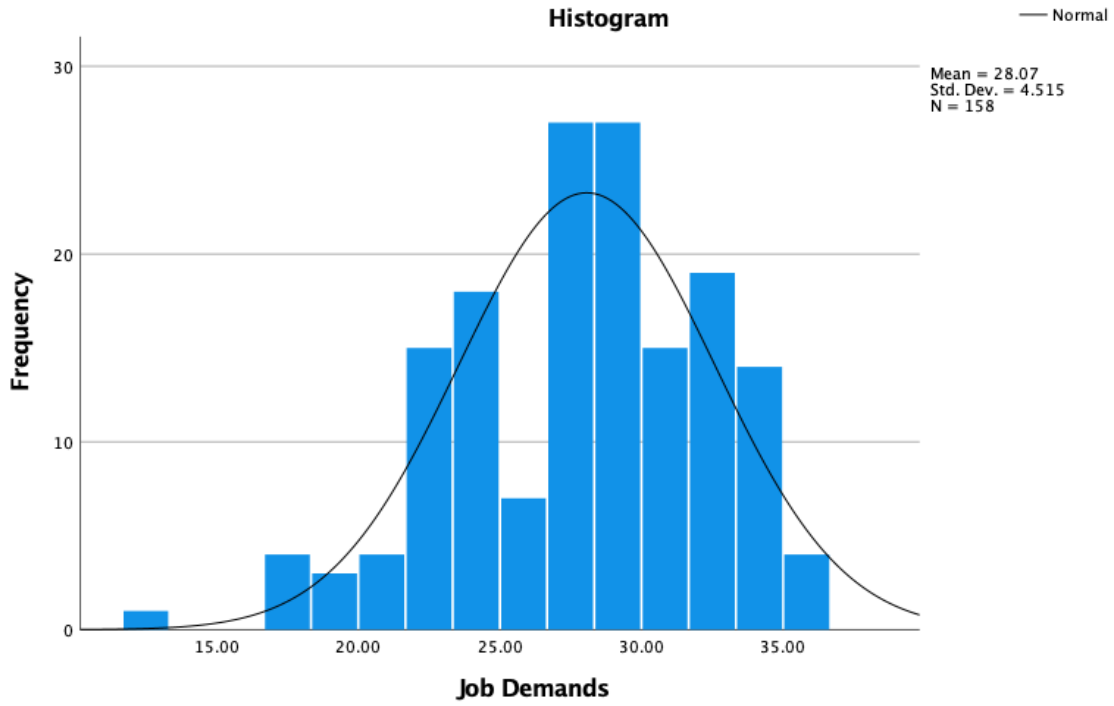
Distribution of Normality – JDRS



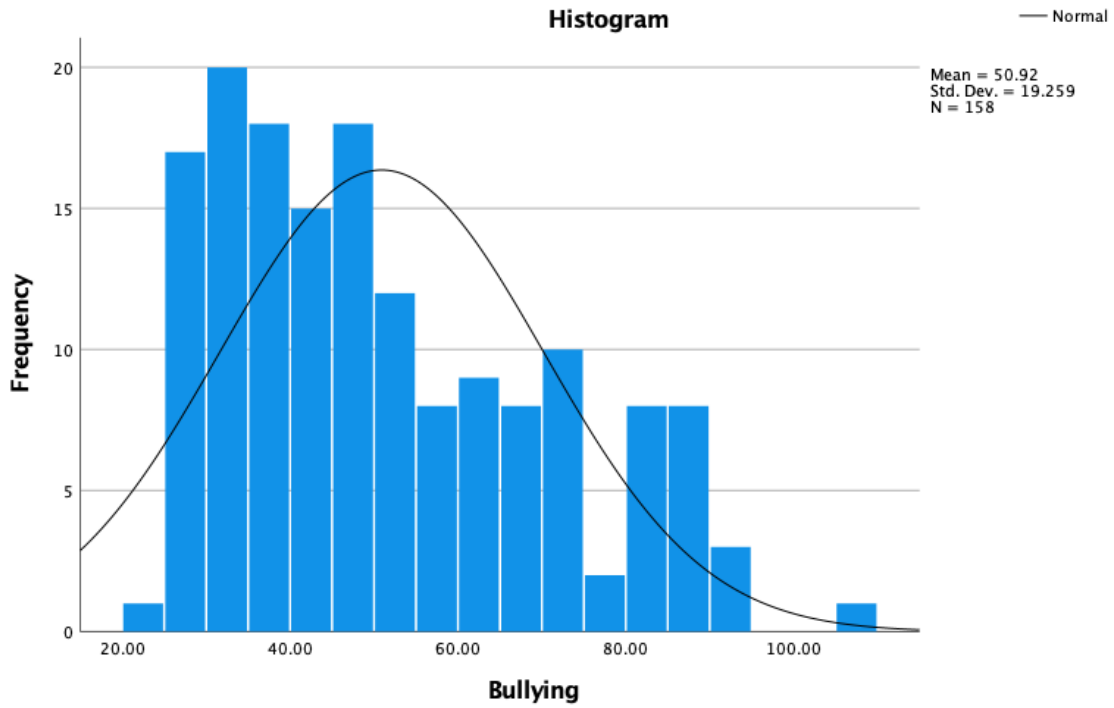
Distribution of Normality – Job Resources



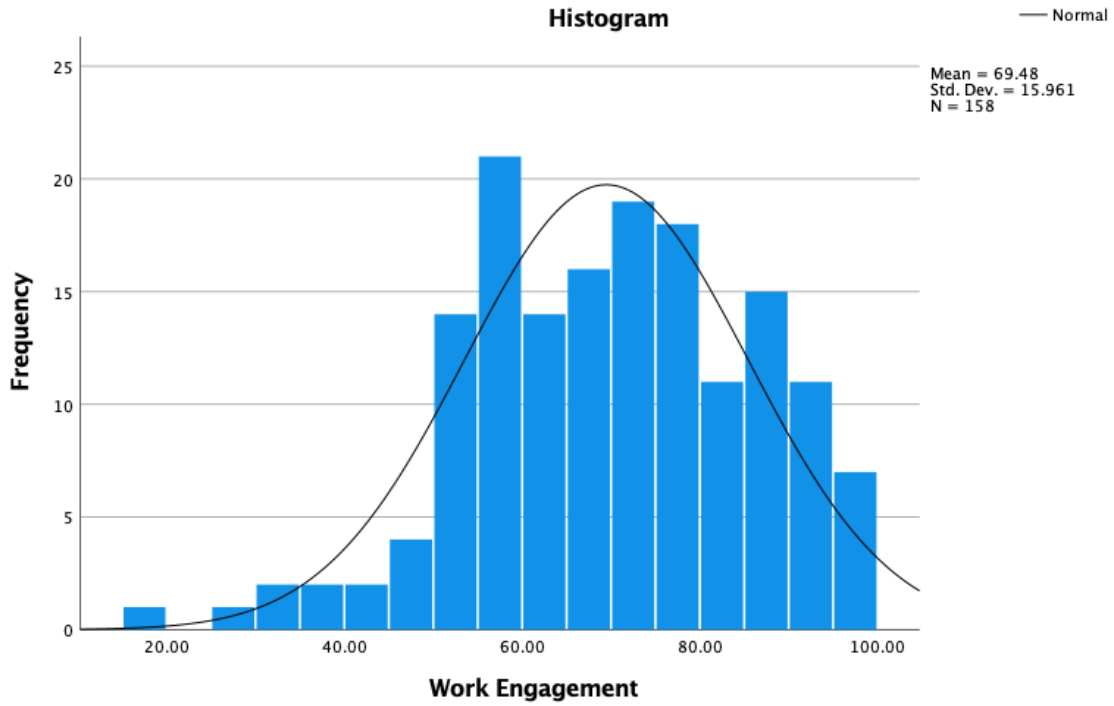
Distribution of Normality – Job Demands



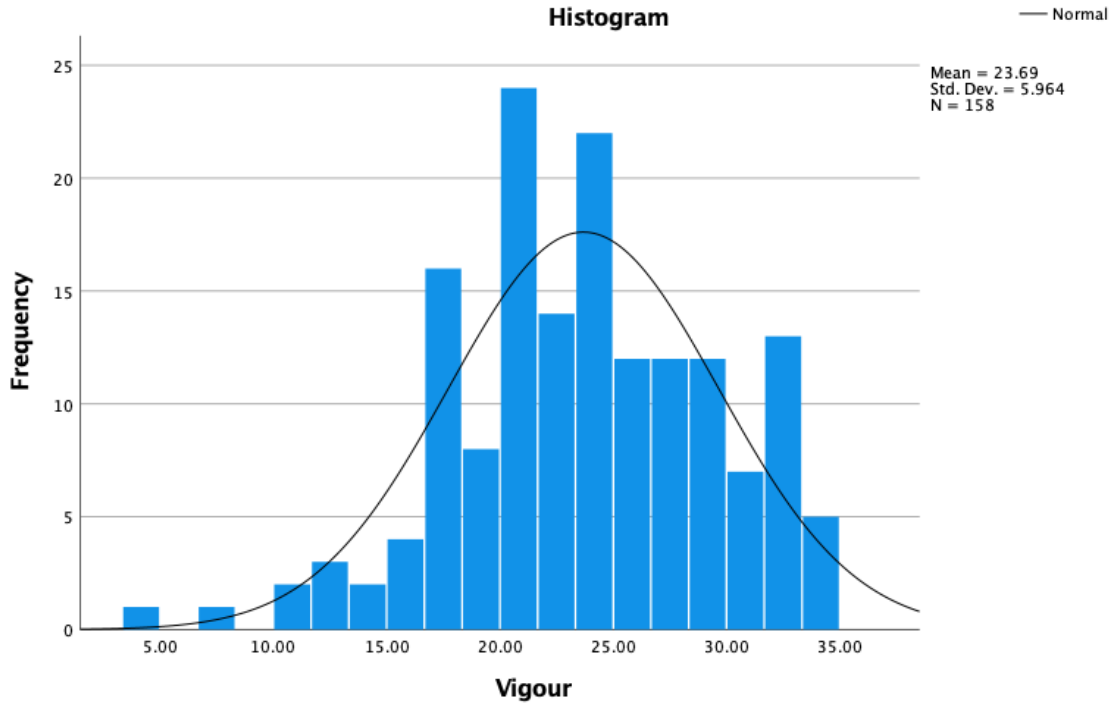
Distribution of Normality – Workplace Bullying



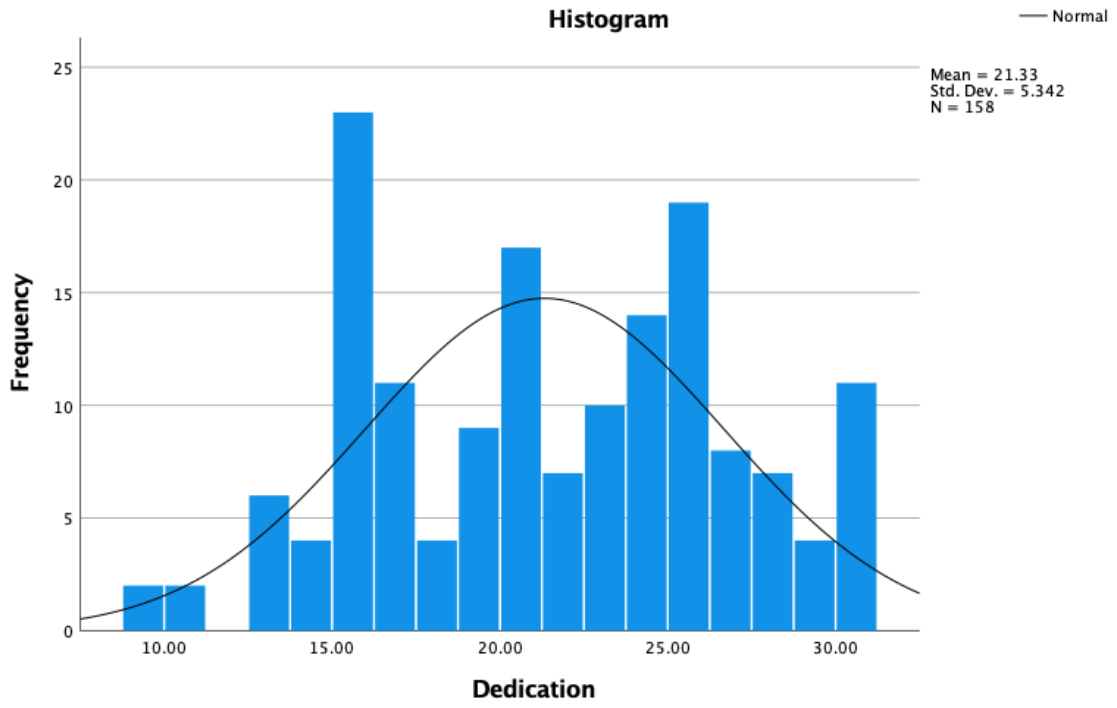
Distribution of Normality – Work Engagement



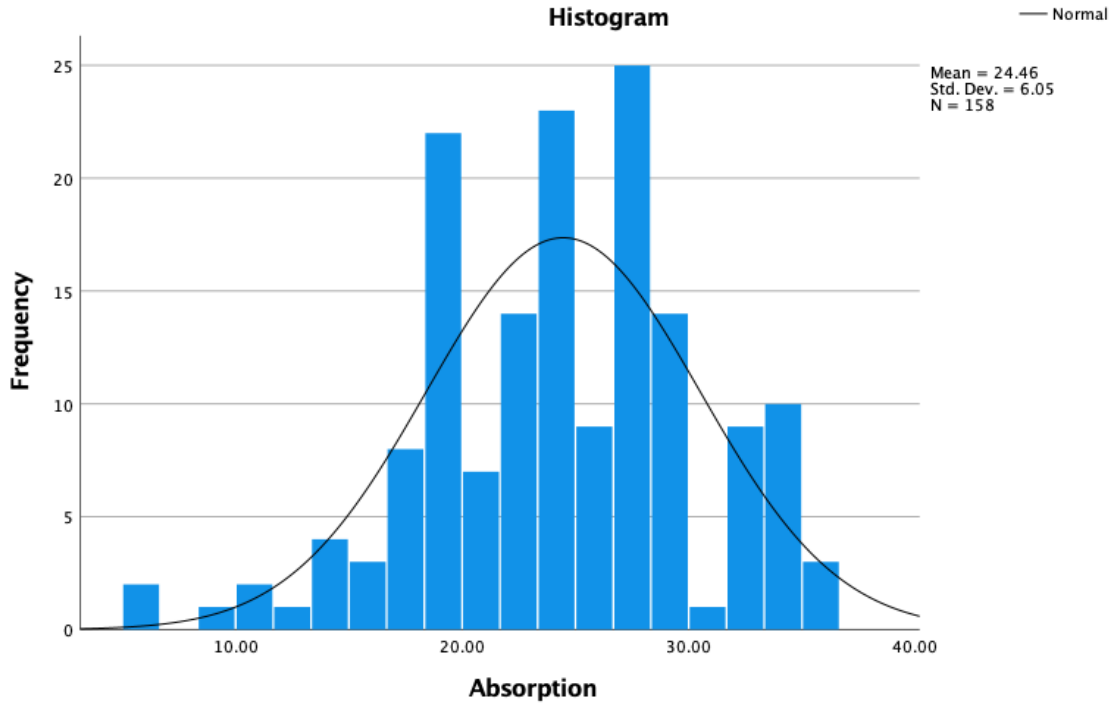
Distribution of Normality – Vigour



Distribution of Normality – Dedication

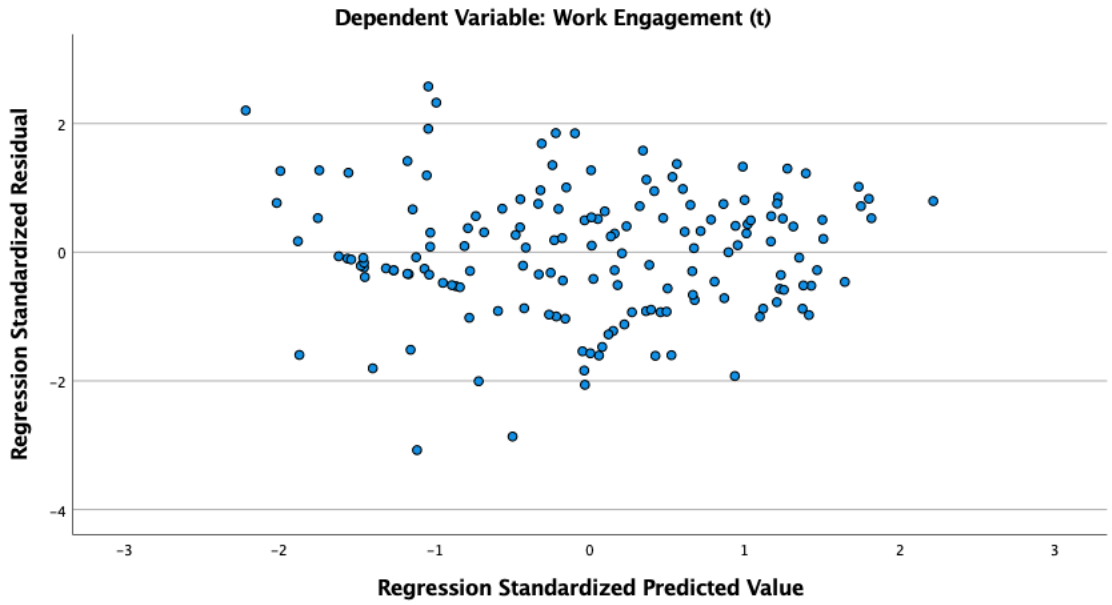


Distribution of Normality – Absorption

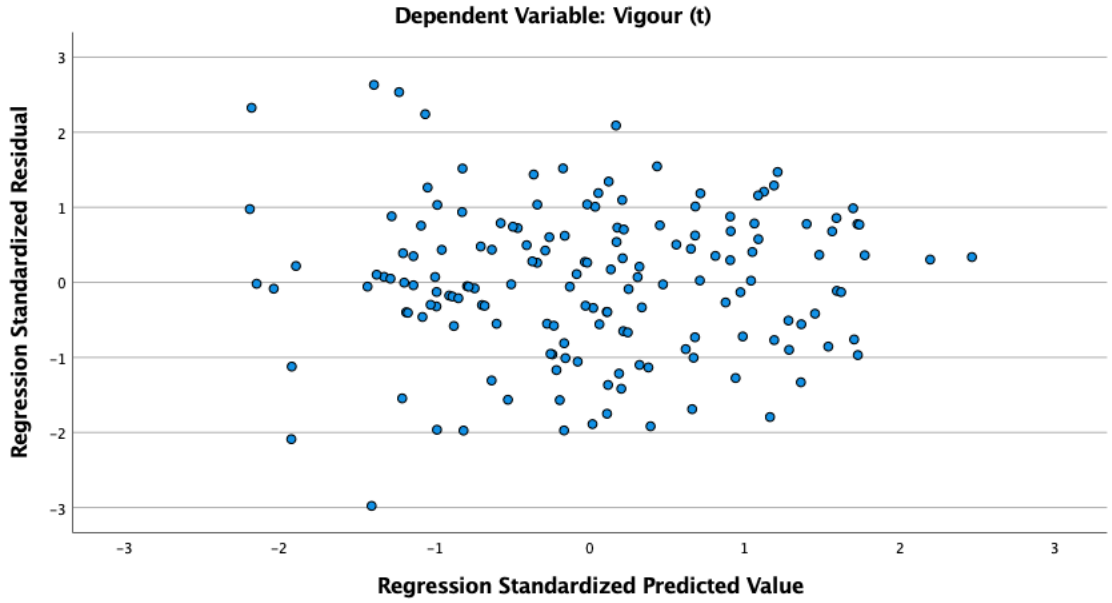


Standardised Residual Scatterplots

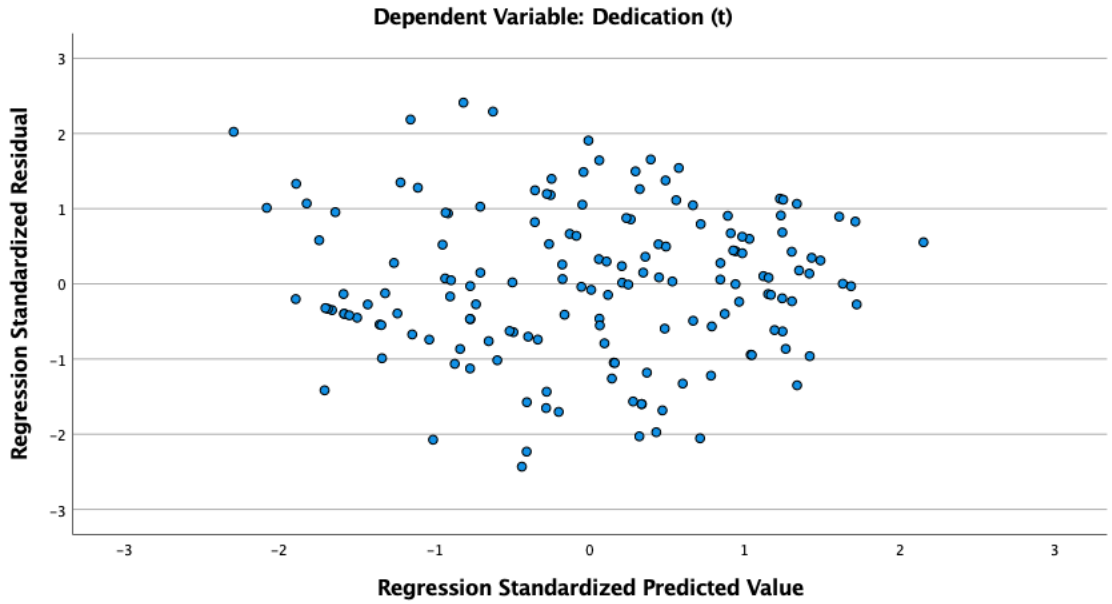
Graph Depicting the Distribution of the Standardised Residuals with Work Engagement as the Dependent Variable



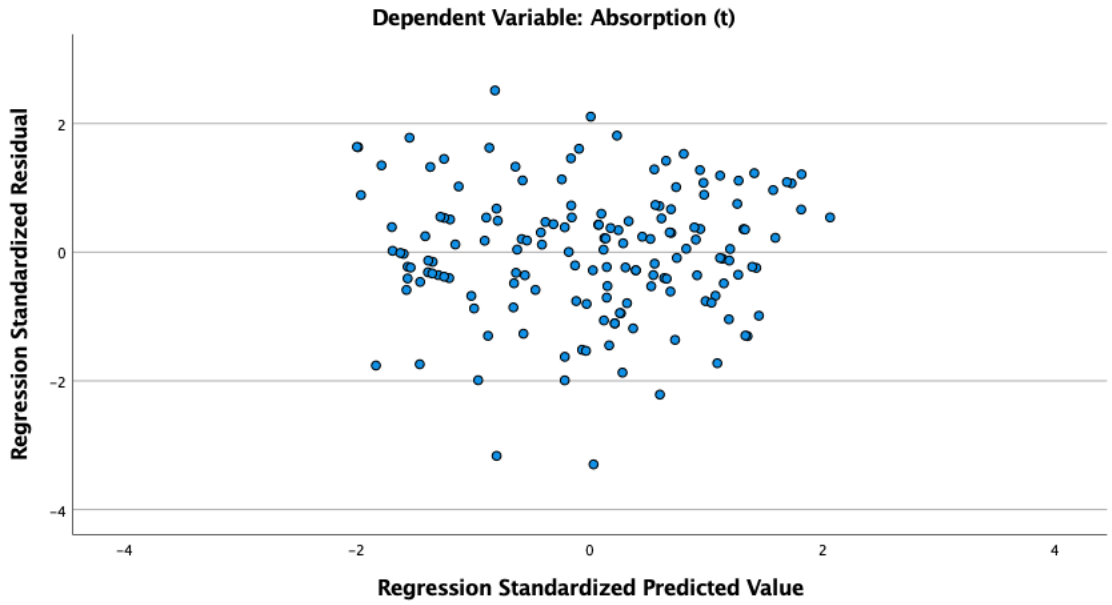
Graph Depicting the Distribution of the Standardised Residuals with Vigour as the Dependent Variable



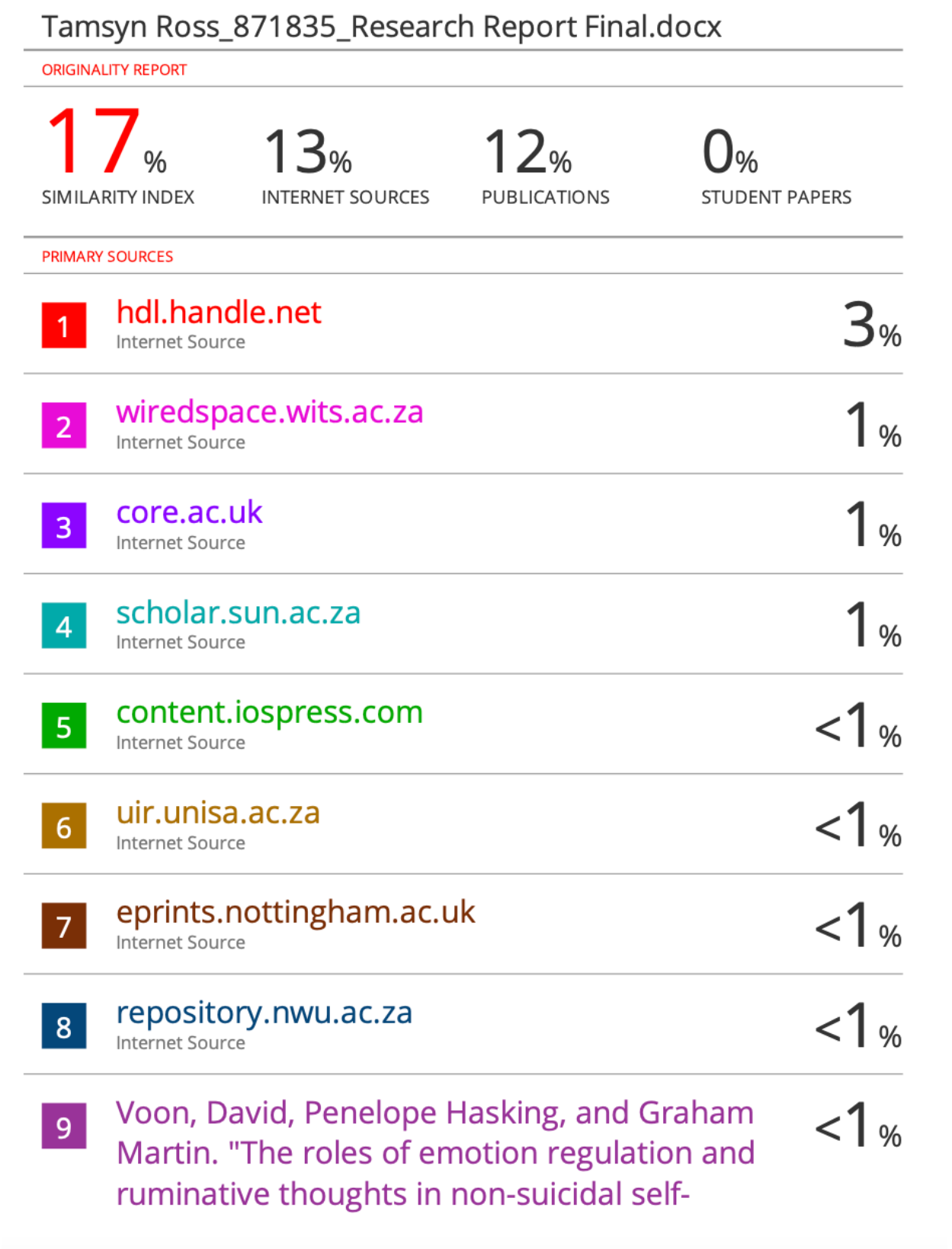
Graph Depicting the Distribution of the Standardised Residuals with Dedication as the Dependent Variable



Graph Depicting the Distribution of the Standardised Residuals with Absorption as the Dependent Variable



Appendix I – Turn-it-in Report



Tamsyn Ross_871835_Research Report Final.docx

ORIGINALITY REPORT

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