

JOB DEMANDS AND JOB RESOURCES AS ANTECEDENTS OF WORK ENGAGEMENT  
AMONG SCHOOL EDUCATORS IN PIETERMARITZBURG, KWAZULU-NATAL.

By

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## **Abstract**

The objective of this study is to assess the relationship between work engagement, job demands and job resources in a sample of educators. A cross-sectional survey design was used. Convenience samples (N = 157) were taken of educators in an area of Pietermaritzburg, KwaZulu-Natal. The Utrecht Work Engagement Scale and the Job Demands Resources Scale were administered to the sample of educators. The results showed that job resources are significant predictors of work engagement. Also, growth opportunities and organisational support played a major role in educators' engagement and thus needs to be made a priority in the education system.

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## **CHAPTER 1**

### **1. INTRODUCTION**

This study investigates the relationship between job demands, job resources and work engagement among educators in the Pietermaritzburg area, KwaZulu-Natal, as well as finding out whether job demands and resources have predictive value for work engagement.

In this chapter, the problem statement is discussed and an outline is provided of the research objectives, research methods and chapter division.

#### **1.1 PROBLEM STATEMENT**

Teaching and education plays an important role in the development of the South African economy (Jackson, Rothmann & Vijver, 2006). A large amount of literature indicates that teaching is a stressful profession (Borg & Riding, 1991; Travers & Cooper, 1996); for example, it has been estimated that between 5% and 20% of all U.S. educators are burnt out at any given time (Farber, 1991). In Finland, educators have the highest burnout levels compared to workers in all other human services and white-collar jobs (Kalimo & Hakanen, 2000). In comparison with other professions, educators show high levels of exhaustion and cynicism, the core dimensions of burnout (Maslach, Jackson, & Leiter, 1996; Schaufeli & Enzmann, 1998). This is not however a problem that has escaped South Africa.

Research shows that educators in South Africa have had a dramatic increase in workload in terms of learner numbers over the past two years (Naidu, 2005) and according to Jackson and Rothmann (2005), this impacted on work overload, a lack of growth opportunities and low control, which are major predictors of exhaustion of educators. Factors in the South African environment that contribute to the experience of stress of educators include increasing

changes in education and society, and educators burdened with having to make a variety of modifications in their personal and professional lives. These changes include, among others: population increases, diversity in school populations, increases in cost of living, crime and its effects on learner behaviour, conditions of service, new rules and regulations of the education department, curriculum changes, performance appraisal systems and demands of unions (Mestry, 1999).

Results from high levels of stress due to work overload, inadequate collegial relationships, large classes, lack of resources, fear of violence, role ambiguity, limited promotion opportunities, little involvement in decision-making, learner behavioural problems, insufficient financial support, pressure from external parties (e.g. unions and education departments) and lack of community support lead us all to a better understanding of why stress and burnout among educators has increasingly received recognition as a widespread problem and global concern in recent years (Boyle, Borg, Falzon & Baglioni, 1995; Kyriacou, 2001).

Interestingly, it is research on burnout that has stimulated most contemporary research on work engagement (Bakker, Schaufeli, Leiter & Taris, 2008) and this is because work engagement was first seen as the direct opposite of burnout and then later acknowledged as being a construct in its own right (e.g. Schaufeli & Bakker, 2004). Contrary to those who suffer from burnout, engaged employees are typically characterised by the willingness to take initiative and self-direct their lives; generate their own positive feedback and encourage themselves; their values and norms are in agreement with those of the organisation for which they work; they do become fatigued, but it is intrinsically linked to an overall sense of satisfaction. They too may become 'burnt out', but are able to extricate themselves from the

situation; they are not enslaved to their job, and they tend to also pursue outside interests (Van den Berg, Manias & Burger, 2008). These are qualities that educators in South Africa require in order to assist them with their challenging profession and circumstances.

In learning what factors affect work engagement, Schaufeli and Bakker (2004) found that it is strongly predicted by job resources. More specifically, Coetzer and Rothmann (2007) found that job resources, namely organisational support (including relationship with superiors, role clarity, information, communication and participation), growth opportunities (including variety, opportunities to learn and autonomy), social support and advancement are *positively* related to work engagement. They also found that job demands such as work overload are *negatively* related to work engagement as well as previous research (for example, Schaufeli & Bakker, 2002) indicating that a *lack of* resources has the same effect.

Lacking resources can lead to disengagement from one's work role. Studies have shown that resources lead to greater availability and work engagement (Kahn, 1990). When employees receive resources from their organisation, they feel obliged to repay the organisation with higher levels of engagement (Kahn, 1990; Saks, 2006). Bakker, Hakanen, Demerouti and Xanthopoulou (2007) show that high job resources, such as social support and feedback, may reduce job demands. This means that educators can better deal with their high job demands, by having resources to buffer their effect.

Some recent studies include the work of Jackson, Rothmann and Vijver (2006) and Hakanen, Bakker and Schaufeli (2006). The (international) research available has mostly been done by Schaufeli, Bakker, Demerouti and Hakanen and has demonstrated that job demands and resources do impact on the work engagement levels of employees in general. Their research

has not however focused specifically on how particular job demands and resources affect particular professions, such as teaching. South African research on the topic is also extremely limited and has mostly been done by Rothmann. Therefore there is a distinct need to increase knowledge in this field.

From the previously mentioned information, it is clear that *both* job demands and job resources play an important role in employees' levels of work engagement and therefore an understanding of their relationship to each other is vital. The problem lies therefore in the limited amount of research available regarding this complex relationship between job demands, job resources and work engagement, specifically among *educators*. The reason for this lack of research is due to occupational health psychology literature focusing mainly on the negative aspects of teaching (Hakanen, Bakker & Schaufeli, 2006), resulting in research on cause and prevention of stress and burnout in the workplace and not enough focus has been placed on the positive aspects of work, including work engagement. The focus on work engagement as the positive antithesis of burnout promises to yield new perspectives on interventions to promote healthy perceptions, beliefs, and physical well-being (Salovey, Rothman, Detweiler, & Stewart, 2000) and to alleviate burnout (Maslach, Schaufeli & Leiter, 2001). By focusing on the positive aspects of work and well-being, the research is taking a positive psychology approach— by taking this approach, it is also addressing the gap in existing literature.

Positive psychology is the scientific study of human strength and optimal functioning (Seligman, 2003). Viewed from this positive perspective, it is not surprising that the concept of burnout has recently been extended to its positive antithesis— work engagement. *Work engagement*, in particular, is a concept relevant to employee well-being and work behaviour.



First, work engagement is a positive experience in itself (Schaufeli, Salanova, Gonzalez-Roma & Bakker, 2002) and second, it is related to good health and positive work affect, such as low levels of depression, distress and psychosomatic complaints (Demerouti, Bakker, Janssen & Schaufeli, 2001). Thirdly, it helps individuals derive positive benefits from stressful work (Britt, Adler & Bartone, 2001) and fourthly, it is positively related to job satisfaction and commitment (Demerouti et al., 2001a). Taken altogether, work engagement has positive outcomes for individual well-being and organisational functioning.

The concept of work engagement has been characterised in four different ways, however the conceptualisation of Schaufeli and his co-researchers (2002) is being used in this study. They defined and operationalised work engagement in its own right as, “a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication, and absorption” (Schaufeli, et al., 2002, p. 74). Of the three dimensions of work engagement, *vigour* is characterised by high levels of energy and mental resilience while working, the willingness to invest effort in one’s work, not being easily fatigued, and persistence even in the face of difficulties. *Dedication* is characterised by deriving a sense of significance from one’s work, by feeling enthusiastic and proud about one’s job, and by feeling inspired and challenged by it. *Absorption* is characterised by being totally and happily immersed in one’s work and having difficulties detaching oneself from it. Time passes quickly and one forgets everything else that is around. Engaged employees have high levels of energy, are enthusiastic about their work, and they are often fully immersed in their job so that time flies (Macey & Schneider, 2008).

Although limited, studies over the past two decades have investigated positive concepts such as sense of coherence, resilience or personal hardiness, job control, work engagement, and flow (May, Gibson, & Harter, 2004), as well as how particular job demands and resources

impact on these concepts. One such local study was done by Coetzer and Rothmann (2007) on job demands, job resources and work engagement in a multinational oil company and found that job resources, such as organisational support, growth opportunities, social support and advancement opportunities, were related to work engagement of individuals. They also found that job demands did not play a significant role in the work engagement of employees and that organisational support and growth opportunities were the best predictors of work engagement. *Job demands* represent characteristics of the job that potentially evoke strain, in cases where they exceed the employee's adaptive capability (Bakker, Demerouti & Schaufeli, 2003). More specifically, job demands refer to those aspects of a job that require sustained physical and/or psychological effort and are therefore associated with certain physiological and/or psychological costs. In the case of educators, the demands focused on in this research include work overload and job insecurity. Although job demands are not necessarily negative, they may turn into job stressors when meeting those demands requires high effort from which the employee has not adequately recovered (Meijman & Mulder, 1998). According to Schaufeli and Bakker (2001), research showed that even when exposed to high job demands and working long hours, some individuals do not show symptoms of burnout. Instead, they seem to find pleasure in dealing with these stressors. From a positive psychology perspective (Seligman & Csikszentmihalyi, 2000), such individuals could be described as engaged in their work.

*Job resources* refer to the physical, psychological, social, or organisational aspects of a job that (1) may reduce job demands and the associated physiological and psychological costs, (2) are functional in achieving work goals, and (3) stimulate personal growth, learning, and development (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001b). Hence resources are not only necessary to deal with job demands, but they also are important in their own right

(Hobfoll, 2001). In terms of this definition, job characteristics, such as variety, independence, opportunities for learning and participation, opportunities to participate, role clarity, effective communication, advancement, remuneration and good relationships with supervisors and colleagues create psychological meaningfulness and safety for employees, which are needed to be engaged in one's job (May, Gibson, & Harter, 2004). Resources of educators focused on in this study include growth opportunities, control, support and relationships with colleagues. These are based on the dimensions of the Job Demands Resources Scale (JD-RS) found by Jackson and Rothmann (2005).

The Job Demands-Resources model (JD-R model; Demerouti et al. (2001) encompasses these job characteristics and their consequences. One central assumption of the JD-R model is that although every occupation may have its own specific work characteristics associated with wellbeing, it is still possible to model these characteristics in two broad categories namely, job demands and job resources. The model also takes into account two important processes that take place, namely a motivational process and a strain/energetic process. These processes look at how job demands and resources affect work engagement and burnout.

It is not only important to view job demands and resources independently, but also as having an interaction with each other. The interaction between them has been shown to be important in the development of job strain and motivation (Bakker & Demerouti, 2008). More specifically, research shows that job resources are associated with a motivational process leading to job-related learning, organisational commitment and work engagement, (e.g. Salanova Agut & Peiro, 2005) and job demands are associated with a process of job strain (which leads to burnout). It is thus essential to look at the interaction between job demands and job resources of educators and analyse their effect on educators' levels of work engagement.

A lot of research has been conducted on the JD-R model and the samples of the studies have varied from dentists, to nurses, to educators (e.g. Hakanen, Bakker, & Schaufeli, 2006; Jackson & Rothmann, 2005). Although some studies have focused on educators, research in South Africa on this particular occupation is lacking. Therefore, this research aims to address this gap in the literature. In order for educators in South Africa to feel energised, dedicated and absorbed in their work, more research is needed on how their job demands and resources affect their engagement. In order to contribute towards the literature on work engagement among educators, there must be a focus on the specific demands they face at work and what resources they have at their disposal in order to foster engagement and buffer the effects of job demands.

Based on the fact that there is insufficient research on job demands, job resources and what their relationship with work engagement is in the South African context, the study is aimed at filling this gap. There is also a distinct lack of focus on particular professions, i.e. educators. Therefore it is necessary to gain insight into this area, especially within the South African context.

On the basis of the above-mentioned problem statement, the following research questions emerge:

- ❖ How are job demands, job resources and work engagement conceptualised in the literature?
- ❖ What is the relationship between educators' job demands, resources and work engagement?
- ❖ Can job demands and resources can be viewed as antecedents of work engagement?

## **2. RESEARCH OBJECTIVES**

### **2.1. General Objective**

The main objective of this study is to examine the relationship between job demands, job resources and work engagement of educators within the Pietermaritzburg area, and to determine whether their job demands and resources hold predictive value for work engagement and therefore can be considered as antecedents of work engagement.

### **2.2 Specific Objectives**

- ❖ To establish how job demands, resources and engagement are conceptualised in the literature.
- ❖ To identify what the relationship between the educators' job demands, resources and work engagement is.
- ❖ To determine whether job demands and resources can be viewed as antecedents of work engagement.

## **3. CHAPTER DIVISION**

The review of the literature is discussed in chapter two. This includes the literature on work engagement, job demands and job resources and specifically focuses on the Job Demands-Resources model as the framework for the research. Chapter three provides information on the methodology and demographics of the sample and chapter four presents the results of the research. Chapter five then gives a thorough discussion of the results and their relationship to the literature as well as providing recommendations and limitations of the study.

### **3.1 CHAPTER SUMMARY**

This chapter started by introducing the topic and briefly discussing the main point of this paper, it then goes on to the problem statement. The research aims are then discussed as well as the research methods. The chapter division is explained and then the chapter is concluded.

## **CHAPTER 2 – LITERATURE REVIEW**

### **2. INTRODUCTION**

Educators are seen as nation builders and the eyes of society are on them frequently (Lath, 2010). As mentioned previously, most of the occupational health psychology literature focuses on the negative psychological outcomes of teaching (Hakanen, Bakker & Schaufeli, 2006), which has resulted in there being a vast amount of research on the cause and prevention of stress and burnout in the workplace and clearly not enough on positive aspects such as work engagement. These positive aspects promote health and well-being (Rothmann, 2003). Instead of purely focusing on burnout, paying attention to both burnout *and* engagement seems fruitful, as from a more encompassing perspective the thriving of employees can be stimulated more fully, by preventing ill-health and stimulating well-being (Luthans, 2002). Therefore more research is needed regarding positive states, so as to add to a holistic understanding of the Job Demands-Resources model.

#### **2.1 REVIEW OF THE LITERATURE**

Although scholars have made great strides over the past decade in identifying correlates of work engagement (e.g., Harter, Schmidt, & Hayes, 2002; Schaufeli & Bakker, 2004), little theory accounts for the role of job demands and resources as antecedents of work engagement, as well as seeing engagement as an important part of well-being at work. Researchers have examined them in terms of particular occupations, however educators have been under researched in this aspect. This is therefore a gap in the literature that needs to be addressed.

The gaps in knowledge on engagement may be understandable, given that the concept has a fairly brief history and a substantial portion of this research has been grounded in theories of burnout and employee well-being (e.g., Maslach & Leiter, 1997). However, these gaps need

to be filled. Accordingly, this study is geared towards filling the gaps in South African literature on the topic of job demands, job resources and work engagement among educators and to contribute towards the need for further information about positive states at work (i.e. work engagement).

Work engagement covers the basic dimensions of intrinsic motivation, which ensures goal oriented behaviour and persistence in attaining objectives along with high levels of activation (i.e. vigour) as well as feeling enthusiastic, identifying with and being proud of one's job (i.e. dedication) (Salanova & Schaufeli, 2008). Since work engagement refers to high levels of energy, persistence, identification and goal-directness, it can be expected that high levels of engagement increase proactive work behaviour in the sense of personal initiative. According to Bakker and Demerouti (2008), "engaged employees are no supermen- they do feel tired after a long day of hard work" (p. 210). However, they describe their tiredness as a rather pleasant state because it is associated with positive accomplishments.

Past international research (e.g. Schaufeli & Bakker, 2004) on job demands, job resources and work engagement has found that job demands are generally positively associated with stress and burnout (and negatively related to engagement), whereas job resources are associated with positive outcomes such as work engagement and well-being. Research on the JD-R model has shown evidence for an energetic/health impairment process and a motivational process: the energetic process links job demands with health problems via burnout and the motivational process links job resources via engagement with organisational outcomes.

The review of the literature to follow indicates a sound basis for the use of the Job Demands-Resources model and indicates why having engaged educators would prove beneficial to our education institutions and individuals. It is clear that by gaining more specific knowledge on the demands and resources of educators in the South Africa, it will prove beneficial. The benefits of this research include gaining new knowledge, illuminating new understandings of how each variable impacted engagement and consequently how each variable impacted one another; HRD professionals could use the findings from the study to focus on creating interventions that promote work-related well-being, encourage a positive psychological climate, and create opportunities for employees to foster work engagement, and knowledge from this study could be used to inform other fields of study that are challenged with similar organisational variables and conditions.

Therefore, using the Job Demands-Resources Model, the link between educators' job demands, resources and work engagement is elaborated upon and insight is given into previous research on the topic. This is given perspective in the South African context and indicates relevance for education within the country. The following research questions are addressed:

- ❖ How are job demands, job resources and work engagement conceptualised in the literature?
- ❖ What is the relationship between educators' job demands, resources and work engagement?
- ❖ Can job demands and resources can be viewed as antecedents of work engagement?

In the next section, the concepts of job demands and job resources will be discussed, using the framework of the Job Demands-Resources model.



## 2.2 THEORETICAL FRAMEWORK: JOB DEMANDS-RESOURCES MODEL

Recently, an exponential increase in publications have focused on the Job Demands-Resources model (Bakker & Demerouti, 2007). The JD-R model examines the impact of job characteristics (i.e. job demands and job resources) on workers' impaired (i.e. burnout) and optimal (i.e. work engagement) work-related well-being. These job characteristics then in turn relate to individual and organisational outcomes.

The Job Demands-Resources model (Bakker & Demerouti, 2007) hypothesizes that job demands often lead to stress, ill-health and burnout, whereas job resources facilitate work engagement and buffer the effects of job demands. It specifies how employee well-being may be produced by two specific sets of working conditions (see Figure 1): the first being job demands and the second being the extent to which the job offers resources to individual employees (Bakker, et al., 2007).

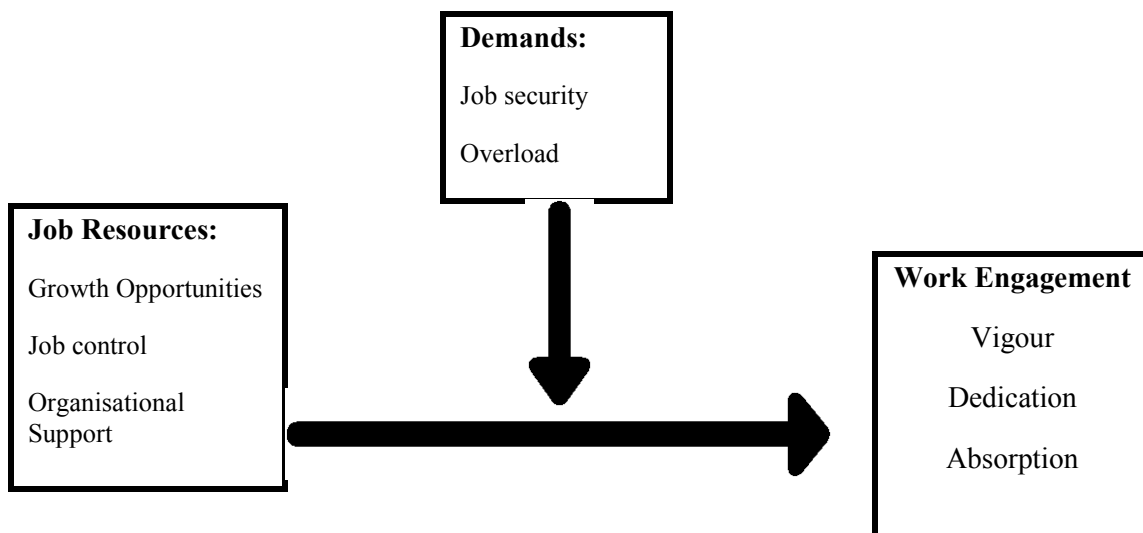


Figure 1: Job Demands-Resources Model

*JD-R Model*

Model adapted from Bakker and Demerouti (2008, p. 218)

### 2.2.1 Job Demands

*Job demands* represent characteristics of the job that potentially evoke strain, in cases where they exceed the employee's adaptive capability. More specifically, job demands refer to those aspects of a job that require sustained physical and/or psychological effort and are therefore associated with certain physiological and/or psychological costs, such as strain and burnout (Bakker & Demerouti, 2007). Job demands are therefore said to elicit an energy depleting process.

Although job demands are not necessarily negative, they may turn into job stressors when meeting those demands requires high effort from which the employee has not adequately recovered (Meijman & Mulder, 1998; Sonnentag & Zijlstra, 2006). The JD-R model supports this view by recognising that demanding characteristics of the working environment, work pressure, overload, emotional demands, and poor environmental conditions may lead to the impairment of health and ultimately to absenteeism (Schaufeli & Bakker, 2004). Research has revealed that job demands such as a high work pressure, emotional demands, and role ambiguity may lead to sleeping problems, exhaustion, and impaired health (e.g. Doi, 2005).

The *Dual process model* was also introduced as a way of developing the positive side of the JD-R model and to introduce engagement into the model. It proposes that irrespective of the occupation involved, job demands may evoke a *health impairment/ strain/ energetic process*, whereas job resources induce a *motivational process* (Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004).

The *health impairment process* occurs when chronic job demands exhaust employees' mental and physical resources (Schaufeli, Bakker & van Rhenen, 2009). This may lead to the depletion of energy (i.e. a state of exhaustion) and to health problems (e.g. Demerouti, et al.,

2000). Mental fatigue is a response of the mind and body to the reduction in resources due to mental task execution (Jackson & Rothmann, 2005). Under normal circumstances, people become tired of their everyday work activities, but their energy resources are sufficient to meet the task demands, however when a person is working under high levels of (mental) workload and is already fatigued, extra energy to compensate fatigue has to be mobilised in order to maintain task performance. A subsequent return to physiological and emotional baseline levels is crucial. Incomplete recovery from workload demands disrupts the energetic homeostasis, which in turn may lead to chronic effects on health and wellbeing. When incomplete recovery takes place, the effect of high workload demands can accumulate gradually, carrying over from one day to the next.

This strain process is illuminated by Hockey's (1993, 1997) *compensatory regulatory-control model*. According to this model, employees under stress face a trade-off between the protection of their performance goals (benefits) and the mental effort that has to be invested in order to achieve these goals (costs). This means that when job demands increase, regulatory problems occur in the sense that compensatory effort has to be mobilised to deal with the increased demands whilst maintaining performance levels. This extra effort is associated with physiological and psychological costs such as increased sympathetic activity, fatigue, and irritability. Continuous mobilisation of this effort drains the employee's energy and might therefore lead to burnout and/or ill-health, (Hockey, 1997).

### **2.2.2 Job Resources**

*Job resources* refer to the physical, psychological, social, or organisational aspects of a job that (1) may reduce job demands and the associated physiological and psychological costs, (2) are functional in achieving work goals, and (3) stimulate personal growth, learning, and

development. Job resources are motivational in nature and therefore enhance work engagement (Bakker & Demerouti, 2007). Job resources may foster extrinsic motivation at work because they are necessary to deal with job demands and to achieve work goals. In addition, by satisfying the basic psychological needs of autonomy, belongingness and competence, job resources are also intrinsically motivating for employees (Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008).

Resources may be located at the following levels: the organisation (e.g. salary, career opportunities), interpersonal and social relations (e.g. supervisor and coworker support), the organisation of work (e.g. role clarity, participation in decision making), and the task (e.g. performance feedback, skill variety). Job resources play an intrinsic motivational role (by developing employee growth, learning and development) or an extrinsic motivational role (by being instrumental in achieving work goals) (Schaufeli & Bakker, 2004).

Job resources such as social support, performance feedback, and autonomy have been proposed to instigate a motivational process leading to job-related learning, work engagement, and organisational commitment (e.g. Demerouti, et al., 2001; Salanova, et al., 2005). Schaufeli and Bakker's (2004) extended version of the JD-R model takes this process into account.

The *motivational process* assumes that job resources have motivational potential and lead to high work engagement, low cynicism, and excellent performance (Bakker & Demerouti, 2007). This process is driven by the availability of job resources, which by definition play a motivational role because they foster employees' growth, learning and development or because they are instrumental in achieving work goals. In the motivational process, job

resources fulfil basic human needs, such as the needs for autonomy, relatedness, and competence as postulated in self-determination theory (Deci & Ryan, 2000). In the latter case, the motivational role of job resources might be explained by the effort-recovery approach (Meijman & Mulder, 1998).

According to this approach, work environments that offer abundant resources foster the willingness of employees to dedicate their efforts and abilities to the work task. In such environments, it is likely that the task will be completed successfully and that the work goal will be attained (Schaufeli, Bakker & van Rhenen, 2009). For instance, supportive colleagues and performance feedback increase the likelihood of being successful in achieving one's work goals. Hence, job resources are likely to foster work engagement through a motivational process that satisfies basic needs for autonomy, relatedness, and competence and that increases the likelihood of attaining one's work goals.

In simpler terms, when organisations do not provide or reward employees with job resources, the long-term consequences are withdrawal from work, and reduced motivation and commitment. In such a situation, these negative outcomes can be an important self-protection mechanism that may prevent future frustration as a result of not obtaining work-related goals. When the external environment lacks resources, individuals cannot reduce the potentially negative influence of high job demands and they cannot achieve their work goals. Additionally, they cannot develop themselves further in their job and organisation.

The model also accounts for the interaction between the motivational and health impairment processes. The interaction means that resources can play a role in the health impairment process and demands can play a role in the motivational process. For example, job resources

act as buffers to the impact of job demands on job strain (Bakker & Demerouti, 2007). Typically, the buffering hypothesis explains interactions between job demands (i.e., stressors) and job resources by proposing that the relationship between job demands and strain is weaker for those enjoying a high degree of job resources. Bakker and Demerouti's (2007) 'buffer hypothesis' is consistent with the work of Kahn and Byosiere (1992), who argued that the buffering or interaction effect can occur between any pair of variables in the stressor–strain sequence. They claimed that properties of the work situation, as well as characteristics of the individual, can buffer the effects of a stressor. The buffering variable can reduce the tendency of organisational properties to generate specific stressors, can alter the perceptions and cognitions evoked by such stressors, and can moderate responses that follow the appraisal process or reduce the health-damaging consequences of such responses (Kahn & Byosiere, 1992, p. 622).

JD-R model also states that many different types of job resources may buffer the undesirable influence of job demands. In a recent study of over 1,000 teachers at a large institute for higher education, Bakker, Demerouti, and Euwema (2005) showed that several job demands influenced burnout only if teachers possessed few job resources (autonomy, social support, supervisory coaching, and feedback). In a similar vein, in their study among four home-care organisations, Bakker, Demerouti, Taris, et al. (2003) found evidence for the buffering role of job resources. More specifically, they found that the relationship between job demands (e.g., workload, physical demands, and patient harassment) and feelings of exhaustion disappeared when home-care professionals possessed many resources (e.g., autonomy, opportunities for professional development, performance feedback).

Several studies have provided evidence for the hypotheses put forward by the JD-R model. Specifically, a number of studies supported the dual processes to employee well-being proposed by the model, and showed that it can predict important organisational outcomes. Bakker, Demerouti, De Boer and Schaufeli (2003a) applied the model to call centre employees of a Dutch telecom company, and investigated its predictive validity for self-reported absenteeism and turnover intentions. Results supported the dual processes. In the first energy-driven process, job demands were the most important predictors of health problems, which, in turn, were related to sickness absence. In the motivation-driven process, job resources were the only predictors of dedication and organisational commitment, which, in turn, were related to turnover intentions.

Hakanen et al. (2006) found comparable results in their study among Finnish teachers. More specifically, they found that burnout mediated the effect of job demands on ill-health, and that work engagement mediated the effect of job resources on organisational commitment. Finally, Bakker, Demerouti and Verbeke (2004) used the JD-R model to examine the relationship between job characteristics, burnout, and other-ratings of performance. They hypothesized and found that job demands were the most important antecedents of the exhaustion component of burnout, which, in turn, predicted in-role performance. In contrast, job resources were the most important predictors of extra-role performance, through their relationship with engagement. Taken together, these findings support the JD-R model's claim that job demands and job resources initiate two different psychological processes, which eventually affect important organisational outcomes (see also Bakker et al., 2003a; Schaufeli & Bakker, 2004; Jackson & Rothmann, 2005).

Just as studies indicate a relationship between job demands and burnout, previous research also shows that job resources relate to positive outcomes, including engagement (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). Bakker et al.'s (2004) study of human service professionals (including educators) showed that job resources lead to dedication and extra-role performance. This is consistent with Leithwood, Menzies, Jantzi, and Leithwood (1999), who suggested that schools may develop commitment to the collectively held goals of the organisation by providing educators with opportunities to become increasingly competent and by developing shared decision-making possibilities (i.e., job resources). These job resources, in turn, encourage personal investment in the work and success of the school organisation. However, when schools do not provide or reward teachers with job resources, the long-term consequence is withdrawal from work and reduced motivation and commitment (Bakker, Demerouti, & Schaufeli, 2003a).

Two recent studies explicitly focused on the buffer effect of job resources on the relationship between job demands and well-being, and found clear evidence for the proposed interaction. Bakker, Demerouti and Euwema (2005), in their study among 1,000 employees of a large institute for higher education, found that the combination of high demands and low job resources significantly added to the prediction of burnout (exhaustion and cynicism). Specifically, they found that work overload, emotional demands, physical demands, and work-home interference did not result in high levels of burnout if employees experienced autonomy, received feedback, had social support, or had a high-quality relationship with their supervisor.



Similarly, in their study among four home-care organisations, Bakker, Demerouti, Taris, et al. (2003) found that the relationship between job demands (e.g., workload, physical demands, and patient harassment) and feelings of exhaustion disappeared when home-care professionals possessed many resources (e.g., autonomy, opportunities for development, performance feedback). Social support is probably the most well-known situational variable that has been proposed as a potential buffer against job stress (see Van der Doef & Maes, 1999, for a review). It is a straightforward resource, in that it is functional in achieving work goals (Bakker & Demerouti, 2007). Thus, support from colleagues can help to get the work done in time, and may therefore alleviate the impact of work overload on strain (Van der Doef & Maes, 1999).

Past research on the JD-R model indicates that the model is robust but also flexible, and it satisfies the need for specificity by including various types of job demands and resources, depending on the occupational context under study. It is thus suitable for this study.

In the next subsection, the concept of work engagement will be discussed, followed by its relationship to job demands and job resources.

### **2.3 WORK ENGAGEMENT**

As the concept of engagement has grown in popularity, it has undergone significant developments in definition, measurement, and conceptualisation, all while research in the academic community has lagged behind (Macey & Schneider, 2008). Such bottom-up growth has resulted in a significant gap in scholarly literature (Macey & Schneider, 2008). As practitioners turned to the academic literature for strategies on developing an engaged workforce, they were met with a deficiency of research on the concept (Saks, 2006). Thus, the popularity of engagement in the practitioner community as well as the need for answers and

the burgeoning emergence of the concept in the academic community led inevitably to differing perspectives on the concept: the practitioner approach and the academic approach (Zigarami et al., 2009).

Within the academic perspective, four major approaches define the existing state of the concept of engagement: (a) Kahn's (1990) need-satisfying approach, (b) Maslach et al.'s (2001) burnout-antithesis approach (c) Harter et al.'s (2002) satisfaction- engagement approach, and (d) Schaufeli and colleagues approach. A discussion of each approach follows.

Kahn (1990) is widely credited with the first application and use of engagement theory to the workplace. He suggested that the conditions of meaningfulness, safety, and availability were important to fully understanding why a person would become engaged in his or her work. Kahn (1990) defined meaningfulness as the positive "sense of return on investments of self in role performance" (Kahn, 1990, p. 705). Safety was defined as the ability to show one's self "without fear or negative consequences to self image, status, or career" (Kahn, 1990, p. 705). Lastly, availability was defined as the "sense of possessing the physical, emotional, and psychological resources necessary" (Kahn, 1990, p. 705) to complete one's work. According to Kahn, by positively fulfilling the criteria for these domains (i.e., my work is meaningful, I feel safe, and I have the resources to complete my work) engagement was psychologically, socially, and physically present when occupying and performing work roles (Kular et al., 2008).

Secondly, Maslach et al., (2001) conceptualised engagement as the positive antithesis to burnout. They thus defined it as, "a persistent positive affective state...characterised by high levels of activation and pleasure" (p.417). Burnout was theorized to be the erosion of

engagement (Maslach, et al., 2001); what was once important, meaningful, and challenging work became unpleasant, unfulfilling, and meaningless (Maslach, et al., 2001, p. 416). By implication, engagement is assessed by the opposite pattern of scores on the three dimensions of the Maslach Burnout Inventory (MBI; Maslach, Jackson, & Leiter, 1996): low scores on exhaustion and cynicism, and high scores on professional efficacy.

Distinct yet encompassing of Kahn (1990) and Maslach et al.'s (2001) engagement frameworks, Harter et al. (2002) published one of the most widely cited pieces of literature on employee engagement and introduced the third academic approach to employee engagement. The researchers defined employee engagement as an "individual's involvement and satisfaction with as well as enthusiasm for work" (Harter et al., 2002, p. 417). Luthans and Peterson (2002) then extended Harter et al.'s (2002) model by examining the relation between managerial self-efficacy, the perception of effective management practices, and employee engagement. They concluded, "the most profitable work units of companies have people doing what they do best, with people they like, and with a strong sense of psychological ownership" (2002, p. 376).

Lastly, the approach by Schaufeli, et al., (2002) views engagement as an independent, distinct concept that is related negatively to burnout. Consequently, it is defined and operationalised in its own right as "...a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication, and absorption". They renamed the state of engagement (Kahn, 1990) as "work engagement" (Schaufeli et al., 2002).

This conceptualisation of Schaufeli and his colleagues is the approach being utilised in this study. This is because it views work engagement in its own right, as well as it being

operationalised by the Utrecht Work Engagement Scale. Therefore it is easy to measure the three dimensions of vigour, dedication and absorption.

According to the research (Christian & Slaughter, 2007), no single approach dominates the field in methodology or definition, however Maslach et al. (2001) is by far the most widely cited. Furthermore, while each approach proposes a different perspective, the varying approaches remain clear and unanimous in conclusion: the development of employee engagement inside organisations has the potential to significantly impact important organisational outcomes (Harter et al., 2002; Luthans & Peterson, 2002; Macey & Schneider, 2008; Saks, 2006; Schaufeli et al., 2002). In such uncertain and challenging environments (Gebauer & Lowman, 2009), engaging employees has become an organisational imperative.

The concept of work engagement consists of three dimensions, namely vigour, dedication and absorption (Schaufeli & Bakker, 2001). Vigour is characterised by high levels of energy and mental resilience while working, the willingness to invest effort in one's work, not being easily fatigued, and persistence even in the face of difficulties. Dedication is characterised by deriving a sense of significance from one's work, by feeling enthusiastic and proud about one's job, and by feeling inspired and challenged by it. Absorption is characterised by being totally and happily immersed in one's work and having difficulties detaching oneself from it. Time passes quickly and one forgets everything else that is around. Being fully absorbed in one's work comes close to what has been called 'flow,' a state of optimal experience that is characterized by focused attention, clear mind, mind and body union, effortless concentration, complete control, loss of self-consciousness, distortion of time, and intrinsic enjoyment (Csikszentmihalyi, 1990). However, typically, flow is a more complex concept that includes many aspects and refers to short-term 'peak' experiences instead of a more pervasive and

persistent state of mind, as is the case with absorption. Engaged employees have high levels of energy, are enthusiastic about their work, and they are often fully immersed in their job so that time flies (Macey & Schneider, 2008; May, Gibson, & Harter, 2004).

### **2.3.1 Outcomes of Work Engagement**

Literature (e.g. Schaufeli & Bakker, 2003) indicates that there are many benefits or positive outcomes of work engagement. These benefits are not only for the organisation, but also for the individual. These include energy, mental resilience, personal fulfilment and a sense of well-being, which can lead to both greater job and life satisfaction, high performance ratings, sustainable work load, feelings of choice and control, a supportive work community, fairness and justice and meaningful and valued work. According to Demerouti, et al., (2001a), Harter, Schmidt and Hayes (2005), engaged employees perform better, seem to be more satisfied with their jobs, feel more committed to the organisation and intend to stay with their current organisations. For engaged employees, time passes quickly; they identify with their work tasks, resist distractions, spread their enthusiasm to others and care deeply about the result (Erikson, 2005). Engaged employees seem to create their own resources and perform better (Bakker & Leiter, 2010).

Furthermore, there are some indications that engagement is positively related to health and well-being, that is, to lower levels of depression and distress (Schaufeli, Taris & Van Rhenen, 2003) and psychosomatic complaints (Demerouti, et al., 2001a). Some of the behaviours demonstrated by engaged employees include a belief in the organisation, a desire to work to make things better, understanding the business context, willingness to go the extra mile, keeping up to date with developments in the field, decreased staff turnover, increased productivity, a positive attitude towards and pride in the organisation, a willingness to behave altruistically and be a good team player, reduced burnout, organisational commitment, self-

efficacy, increased discretionary effort, a willingness to go beyond the requirements of the job and increased performance (Macey & Schneider, 2008; Salanova, et al., 2005).

Several researchers (Harter et al., 2002; Saks, 2006; Schaufeli & Bakker, 2004; Sonnentag, 2003) have suggested that engaged employees produce positive work outcomes as a function of their engagement level. Schaufeli and Bakker (2004) described the experience of being engaged as a rewarding and positive work-related experience that produced positive work outcomes (Kahn, 1990, 1992). Positive work experiences are related to overall employee wellbeing (Harter et al., 2003; Saks, 2006) and positive work affect (Sonnentag, 2003), both of which have been shown to result in positive work outcomes such as increased productivity, satisfaction, and reduced turnover (Kahn, 1990, 1992; Saks, 2006).

As suggested by Schaufeli and Bakker (2004) and Saks (2006), engaged employees are more likely to work harder through increased levels of discretionary effort and be less likely to leave their organisation than those who are disengaged. Engaged employees have high levels of self-efficacy and energy, as well as being productive and generally more positive. People who are personally engaged keep their selves within a role without sacrificing one for the other. Engagement thus results in individuals becoming physically involved in tasks, whether alone or with others; cognitively vigilant; and emphatically connected with others in the service of the work that they are doing in ways that display their thoughts, emotions, their creativity, their beliefs, values and their personal connections to others (Kahn, 1990; Luthans & Peterson, 2002).

It is clear thus far that having an engaged workforce is beneficial to organisations and to employees. The next subsection explores the relationship between work engagement and job resources.

### **2.3.2 Relationship between work engagement & job resources**

According to Bakker and Demerouti (2008), there are many drivers of work engagement, including job resources and personal resources. Previous studies have consistently shown that job resources such as social support from colleagues and supervisors, performance feedback, skill variety, autonomy, and learning opportunities are positively associated with work engagement (Bakker & Demerouti, 2007). They are assumed to play either an intrinsic motivational role because they foster employees' growth, learning and development, or an extrinsic motivational role because they are instrumental in achieving work goals. In the former case, job resources fulfil basic human needs, such as the needs for autonomy, relatedness, and competence (Ryan & Frederick, 1997; Van den Broeck, et al., 2008). For instance, supportive colleagues and performance feedback increase the likelihood of being successful in achieving one's work goals. Be it through the satisfaction of basic needs or through the achievement of work goals, the outcome is positive and engagement is likely to occur (Schaufeli & Bakker, 2004; Schaufeli & Salanova, 2007).

Consistent with these notions about the motivational role of job resources, several studies have shown a positive relationship between job resources and work engagement. For example, Schaufeli and Bakker (2004) found evidence for a positive relationship between three job resources (performance feedback, social support, and supervisory coaching) and work engagement among four different samples of Dutch employees. This study was replicated in a sample of over 2000 Finnish educators (Hakanen, Bakker & Schaufeli, 2006). Results showed that job control, information, supervisory support, innovative climate and social climate were all positively related to work engagement. Locally, Coetzer and Rothmann (2007) found that job resources, namely organisational support, growth opportunities, social support and advancement are positively related to work engagement.

More specifically, Hakanen, Perhoniemi and Toppinen-Tanner (2008) found that job resources are important antecedents of work engagement. Furthermore, Mauno and her colleagues (Mauno, Kinnunen & Ruokolainen, 2007) found that job control and organisation-based self-esteem were the best predictors of the three dimensions of work engagement in a 2-year follow-up study. In addition, among Finnish educators several job resources, such as job control and supervisor support were positively associated with work engagement (Hakanen, Bakker & Schaufeli, 2006). In addition, various studies have demonstrated associations of engagement with meaningful organisational outcomes such as in- and extra role behaviour (Schaufeli, Taris, & Bakker, 2006), intention to leave and organisational commitment (Schaufeli & Bakker, 2004), academic performance (Schaufeli, et al., 2002b). Furthermore, there is evidence of a mediating role of work engagement between job resources and positive motivational outcomes, indicated by low turnover intention (Schaufeli & Bakker, 2004), organisational commitment (Hakanen, Bakker, & Schaufeli, 2006), and personal initiative and work-unit innovativeness (Hakanen, Perhoniemi, & Toppinen-Tanner, 2008). These results indicate that work engagement plays an important role in employees attaining positive outcomes at work and thus benefiting organisations and individual employee well-being.

National literature on job resources and engagement is scarce, however there are a few studies that confirm their relationship. Coetzer and Rothmann (2007) found that job resources, namely organisational support (including relationship with superiors, role clarity, information, communication and participation), growth opportunities (including variety, opportunities to learn and autonomy), social support and advancement are positively related to work engagement. Rothmann and Pieterse (2007) studied the relationship between job resources and employee engagement and found that growth opportunities in the job (i.e. variety, learning opportunities and autonomy) best predicted engagement. In a similar vein, Rothmann



and Joubert (2007) found that organisational support and growth opportunities in the job were strong predictors of engagement in the mining industry.

It is therefore important to note that research on this topic is scarce locally, and that research conducted on South African educators is even less, thus highlighting a real need for this research in order to broaden the knowledge in this area.

### **2.3.3 Relationship between work engagement & job demands**

International literature and national literature show evidence that job demands have a negative impact on work engagement. Internationally, Maslach (1993) found that job demands such as work overload drain the employee's energy and, in an attempt to cope with the resulting exhaustion, the employee withdraws mentally. When employees withdraw mentally, their work engagement levels will decrease. Schaufeli and Bakker (2004) also found that job demands lead to burnout, which in turn impacts on the work engagement of employees. They suggest that the effects of high job demands may be reduced by job resources, such as providing feedback, social support and leader/manager guidance and support (Schaufeli & Bakker 2004).

According to Lee, Hourquet and MacDermid (2002), reduced workload and opportunities to balance work and life lead to individuals working more effectively and creatively as a result of a rich, external life outside of work and personal fulfilment in multiple roles. Lee et al. (2002) report findings showing that reduced-load work arrangements generally enhance employees' well-being and lead to a decrease in stress, less fatigue and fewer health problems. Those working on a reduced-load basis tend to work in a highly focused and concentrated manner and are therefore unusually efficient in getting their work done.

In a study by Verbruggen (2009), the particular interest lays on whether or not job demands can make an employee feel engaged, and if so, what kind of job demands assort this effect. Verbruggen (2009) shows that some positive relations have been found between certain job demands and work engagement. Llorens et al. (2006) found that for Spanish employees emotional overload is slightly positively associated with vigour and dedication. Schaufeli and Bakker (2004) found the same effect of emotional overload on dedication and absorption among Dutch employees, and Mauno et al. (2007) showed that time demands predicted high absorption. These results show us that some job demands bring about a positive effect on engagement, but others provoke a negative effect.

In South Africa, the findings of studies that have been done have yielded similar results to those done internationally: Coetzer and Rothmann (2007) found evidence that job demands such as work overload are negatively related to work engagement. This shows that job demands on their own are negatively related to work engagement, i.e. there does not necessarily have to be a lack of resources as well. Mostert, Rothmann, Mostert and Nell (2008) further found job overload to be a major contributor to symptoms of psychological ill health, increased levels of stress and reduced commitment to the organisation, which negatively influence overall job performance and engagement levels. The presence of work overload may lead to exhaustion and cynicism, and symptoms of burnout (Rothmann, 2003). Van den Berg, Manias and Burger (2008) found that high demands or stressors related to job insecurity, client-related factors, work-home interference and physical resources impacted negatively on the levels of vigour and dedication (these are facets of work engagement). The same demands or stressors, in conjunction with poor remuneration, also resulted in lower levels of absorption.

From the above review, it is clear that job demands affect work engagement of employees, but it is also important to note that work engagement affects how employees deal with job demands. In other words, work engagement helps individuals deal effectively with the demands of stressful work (Britt, Adler & Bartone, 2001) and it has been shown to be positively related to organisational commitment, (Demerouti, et al., 2001a) employee performance (Aktouf, 1992) and other positive outcomes.

## **2.4 EDUCATORS, JOB DEMANDS, JOB RESOURCES AND WORK ENGAGEMENT**

Educators experiencing stress and burnout have increasingly received recognition as a widespread problem and global concern in recent years (Kyriacou, 2001). Although up to a third of the educators surveyed in various international studies have indicated that they regarded teaching as highly stressful, they show differences in their reactions to different stressors in the teaching profession. Educators' work is becoming more complex and demanding. Educators have to cope with many job demands such as the rationalisation of personnel, increased specialisation, the growing scope of syllabuses, overload and a higher number of learners per class (Niehaus, Myburgh & Kok, 1996).

Educators have to cope with high levels of prolonged stress related to inordinate time demands, inadequate collegial relationships, large classes, lack of resources, isolation, fear of violence, role ambiguity, limited promotional opportunities, lack of support and involvement in decision-making and student behavioural problems (Friedman, 1995). This means that there are high levels of burnout among educators and it is therefore extremely important to encourage and promote work engagement and well-being in schools. There is thus a real need to develop understandings on positive organisational states of educators in order to harness

our understandings of the wellbeing of educators instead of focusing on the negative i.e. burnout.

There is a wealth of international literature on burnout among educators, occupational stress, organisational commitment, work engagement and job demands/resources. For the purposes of this study however, the focus is on the literature pertaining to work engagement of educators.

Several studies have indicated that work engagement has positive consequences at the individual and organisational levels. For instance, in their weekly diary study among 54 starting teachers, Bakker and Bal (2006) found that daily levels of work engagement were predictive of classroom performance. In addition, Hakanen, Bakker, and Schaufeli (2006) showed that work engagement has predictive value for teachers' organisational commitment (see also Schaufeli & Bakker, 2004). Work engagement among Finnish educational staff was positively associated with self-rated health and working ability (Hakanen, 2002). Harter et al. concluded that engagement is "related to meaningful business outcomes at a magnitude that is important to many organizations" (Harter et al., 2002, p. 276).

A study done among Finnish educators' showed that work engagement was positively related to several job resources, e.g. job control, supervisory social support, positive workplace climate, and negatively related to job demands, e.g. workload (Mauno, et al., 2007). Furthermore, Hakanen, Bakker and Schaufeli (2006) showed that the availability of job resources functions as an antecedent of a motivational process that increases work engagement. Hence, the absence of job resources fosters disengagement, whereas the presence of job resources stimulates personal development and increases work engagement.

In terms of previous research done in South Africa on job demands and resources in various occupations, there is a distinct lack. This is possibly due to other areas of research taking preference, as well as lack of knowledge on the importance of this topic. There is also especially a lack of research on job demands and resources of educators. The studies that have been done however do provide us with insight and remind us that further research is necessary.

Local literature, like Jackson and Rothmann (2006) shows similar trends to that done internationally. Within the South African context, as a result of current political and social changes and the influence of these changes on education structures, very high demands are being placed on educators (Montgomery, Mostert & Jackson, 2005). Apart from broad changes such as affirmative action, democracy, diversity, retrenchment and redeployment of educators, some of the more specific changes that educators have experienced include the transition from nineteen departments of education to one national and nine provincial departments of education, as well as the change from mono-cultural schools to multicultural schools (Myburgh & Poggenpoel, 2002).

Factors in the South African environment that contribute to the experience of stress of educators include increasing changes in education and society, and educators burdened with having to make a variety of modifications in their personal and professional lives (Jackson & Rothmann, 2005). These changes and demands include, among others: population increases, diversity in school populations, increases in cost of living, crime and its effects on learner behaviour, conditions of service, new rules and regulations of the education department, curriculum changes, performance appraisal systems and demands of unions (Mestry, 1999); high pupil-teacher ratios, work-overload due to other teachers being absent, students from a poor educational background, a lack of resources and low salaries, to name a few.

All of these factors point to the need for more of a focus on positive work-related outcomes, such as health, well-being, work engagement and work commitment. A healthy workforce of educators will be more productive and less costly (in terms of sick leave, health insurance, turnover, etc.) and therefore, it is necessary to manage the demands placed on educators and to ensure that they have adequate resources to deal with them. For example, Jackson, Rothmann and Vijver (2006), found in their study that job resources, such as organisational support, growth, and career opportunities had strong effects on the work-related well-being of educators.

Within the South African academic context, Barkhuizen and Rothmann (2005) recently found that the availability of job resources predicted higher levels of work engagement among South African academics. In determining which job demands and job resources predicted work engagement of academic staff in South African higher education institutions, Rothmann and Jordaan's (2006) results showed that organisational support predicts 19% of the variance in work engagement. With the inclusion of growth opportunities, 46% of the variance in work engagement was explained.

These national studies provide us with some degree of insight into job demands and resources affecting educators, but all have tend to focus on burnout and ill-health. Therefore more research is needed regarding job demands and resources in education institutions in South Africa, specifically focusing on positive work affects and well-being, such as work engagement and organisational commitment. This information can be used not only to plan and structure interventions, but also to inform human resource policies in organisations.

The objective of this research is therefore to focus on how job demands, resources and engagement are conceptualised in the literature; find out what the relationship is between educators' job demands and resources and work engagement; and to find out whether job demands and resources can be viewed as antecedents of engagement.

## **2.5 CHAPTER SUMMARY**

In this chapter, the concepts of job demands, job resources and work engagement have been defined and discussed. As mentioned before, *job demands* refer to those aspects of a job that require sustained physical and/or psychological effort and are therefore associated with certain physiological and/or psychological costs. *Job resources* refer to the physical, psychological, social, or organisational aspects of a job that (1) may reduce job demands and the associated physiological and psychological costs, (2) are functional in achieving work goals, and (3) stimulate personal growth, learning, and development. *Work engagement* is defined and operationalised in its own right as "...a positive, fulfilling, work-related state of mind that is characterized by vigour, dedication, and absorption"

The Job demands-resources model (JD-R) being used as the framework in this study has been explained. The relationships between work engagement and job demands and job resources were explored: indicating that job demands are associated with negative outcomes such as burnout, and resources are associated with positive outcomes such as work engagement. It was then concluded that more research is needed to fill the gaps in knowledge on the topic, especially in the South African context.

The research methodology will be presented in the next chapter.

## **CHAPTER 3 – RESEARCH METHODOLOGY**

### **3. INTRODUCTION**

In this chapter, the research methodology will be discussed, including the survey method, the cross-sectional design, the participants, the convenience sampling method, the research instruments (JDRS and UWES), how the research was implemented and finally the statistical analysis employed.

#### **3.1 RESEARCH DESIGN**

The researcher made use of a cross-sectional survey design to achieve the objectives of the study. The survey technique of data collection gathers information from the target population by means of questionnaires (Burns & Grove, 1993).

In order to reach the objectives of this research a quantitative research design was used. A short biographical data sheet and two psychological scales were used for the purpose of data collection. The specific design used in this research study was a cross-sectional design, whereby a sample was drawn from the population at any one time and point (Shaughnessy & Zechmeister, 1997). A cross-sectional research design is typically comprised of different individuals, who are examined in terms of one or more variables at approximately the same point in time (Huysamen, 1994). Within this research design the data collected was used to describe the population at a specific point in time.

The survey technique of data collection gathers information from the target population by means of questionnaires (Burns & Grove, 1993). Two different questionnaires were used to collect the data and they were distributed to schools in the Pietermaritzburg area.



Questionnaires are quick and easy to administer and are therefore convenient when gathering lots of data from large samples.

### **3.2 RESEARCH PARTICIPANTS**

The sample consisted of 157 educators from 11 different primary, secondary and high schools in the Pietermaritzburg area in the province of KwaZulu-Natal. A convenience sample was used and it involved the sample being drawn from that part of the population, which was selected because it was readily available and convenient.

Participants were selected using the method of *convenience sampling*. The sample was selected on the basis of the schools being willing to participate. Twenty schools in central Pietermaritzburg were contacted and those willing to participate, got questionnaires distributed to them. The sample is made up of approximately two hundred educators from eleven schools in the Pietermaritzburg central area, KwaZulu-Natal. The Pietermaritzburg central area has approximately thirty schools altogether (junior and high schools). In the area where the research was conducted, there were predominantly white educators in the schools. For example, white educators constituted 88% of the total sample, with the rest of the racial groups constituting very small percentages. There was a fairly good distribution of educators across all age groups, as well as in terms of the years they have been teaching.

The total sample comprised of 157 educators from eleven schools. Most of the participants were female (86.6%). 36% of the educators were over the age of 49 and 38% of educators had 0-10 years teaching experience and reported having classes of between 20 and 40 learners (83%). The demographic composition of participants is indicated in Table 1 below.

Table 1:

*Demographics of educators*

	Frequency	Percent
<i>Language:</i>		
English	142	88.8
Others	15	9.4
<i>Age:</i>		
19-24	10	6.3
25-36	48	30.0
37-48	40	25.0
49+	59	36.9
<i>Race:</i>		
White	139	86.9
Others	18	11.3
<i>Gender:</i>		
Male	21	13.1
Female	136	85.0
<i>Marital Status:</i>		
Single	33	20.6
Married	115	71.9
Divorced	5	3.1
Widow/er	4	2.5
<i>Highest qualification:</i>		
Secondary	3	1.9
Tertiary	154	96.3
<i>Years spent teaching:</i>		
0-10	62	38.8
10-20	30	18.8

20-30	43	26.9
30+	22	13.8
<i>Learners per class:</i>		
0-20	24	15.0
20-40	133	83.1

### 3.3 RESEARCH INSTRUMENTS

The data collection method took the form of two scales, plus a biographical data sheet that was used purely for statistical purposes. The scales used included the Job Demands-Resources Scale (JDRS) and the Utrecht Work Engagement scale (UWES).

The biographical data sheet was developed to collect demographic information about the participants. Information collected included the following: gender, age group, marital status, years of teaching experience, their qualification, number of learners per class and race.

*The Job Demands-Resources Scale (JDRS)* was developed by Jackson and Rothmann (2005) and is designed to measure job demands and job resources. The JDRS consists of 42 items about pace and amount of work, mental load, emotional load, variety in work, opportunities to learn, independence in work, relationships with colleagues, relationship with immediate supervisor, ambiguities about work, information, communications, participation, contact possibilities, uncertainty about the future, remuneration, and career possibilities. The items were rated on a four-point scale ranging from 1 (never) to 4 (always). Jackson and Rothmann (2005) found that the dimensions of the JDRS consisted of seven reliable factors, namely organisational support ( $\alpha = 0,88$ ), which refers to the relationship with supervisors, flow of information, communication, role clarity and participation in decision-making; growth

opportunities ( $\alpha = 0,80$ ), which refers to having enough variety, opportunities to learn and independence in the job; overload ( $\alpha = 0,75$ ), which refers to pace and amount of work, mental load and emotional load; job insecurity ( $\alpha = 0,90$ ), which refers to uncertainty about the future; relationship with colleagues ( $\alpha = 0,76$ ), job control ( $\alpha = 0,71$ ), which refers to the amount that educators can exercise decision-making skills and take control of situations at work, and rewards ( $\alpha = 0,78$ ), which refers to incentives and rewards for good work, loyalty etc.

*Job demands* refer to those physical, psychological, social, or organisational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort and are therefore associated with certain physiological and/or psychological costs (Bakker, Demerouti & Verbeke, 2004). Examples are high work pressure, role overload, emotional demands, and poor environmental conditions. *Job resources*, on the hand refer to those physical, psychological, social, or organizational aspects of the job that are functional in achieving work goals; reduce job demands and the associated physiological and psychological costs; or stimulate personal growth and development (Bakker, Demerouti & Verbeke, 2004).

*The Utrecht Work Engagement Scale (UWES)* was developed with the definition in mind that engagement is, “a positive, fulfilling, work-related state of mind that is characterized by vigour, dedication, and absorption” (Schaufeli, et al., 2002a, p. 74). It is the most often used instrument to measure engagement (Schaufeli et al., 2002a). It is made up of three subscales: vigour, dedication, and absorption. The UWES has been validated in several countries, including China (Yi-Wen & Yi-Qun, 2005), Finland (Hakanen, 2002), Greece (Xanthopoulou, Bakker, Demerouti, & Kantas, in press), Japan (Shimazu et al., 2008), South Africa (Storm & Rothmann, 2003), Spain (Schaufeli et al., 2002a), and the Netherlands

(Schaufeli & Bakker, 2003; Schaufeli et al., 2002). Originally, the UWES included 24 items, but after psychometric evaluation, 7 unsound items were eliminated so that three scales, totalling 17 items, remained (Schaufeli, Salanova, et al., 2002).

*Vigor* is assessed by six items that refer to high levels of energy and resilience, the willingness to invest effort, not being easily fatigued, and persistence in the face of difficulties (Schaufeli & Bakker, 2003: UWES manual). Those who score high on vigor usually have much energy, zest and stamina when working, whereas those who score low on vigor have less energy, zest and stamina as far as their work is concerned. *Dedication* is assessed by five items that refer to deriving a sense of significance from one's work, feeling enthusiastic and proud about one's job, and feeling inspired and challenged by it. Those who score high on dedication strongly identify with their work because it is experienced as meaningful, inspiring, and challenging. Besides, they usually feel enthusiastic and proud about their work. Those who score low do not identify with their work because they do not experience it to be meaningful, inspiring, or challenging; moreover, they feel neither enthusiastic nor proud about their work. *Absorption* is measured by six items that refer to being totally and happily immersed in one's work and having difficulties detaching oneself from it so that time passes quickly and one forgets everything else that is around. Those who score high on absorption feel that they usually are happily engrossed in their work, they feel immersed by their work and have difficulties detaching from it because it carries them away. As a consequence, everything else around is forgotten and time seems to fly. Those who score low on absorption do not feel engrossed or immersed in their work, they do not have difficulties detaching from it, nor do they forget everything around them, including time.

The original UWES-17 has encouraging psychometric features for its scores. For instance, internal consistencies (Cronbach's alpha) typically range between .80 and .90 (e.g. Demerouti, Bakker, Janssen, & Schaufeli, 2001; Schaufeli & Bakker, 2004). Thus, values of Cronbach's alpha exceed the value of .70 that is traditionally used as a rule of thumb (Nunnally & Bernstein, 1994), and even more so, in almost all cases, alpha satisfies the more stringent value of .80 that is now considered a generally accepted standard (Henson, 2001). The UWES can be used as an unbiased instrument to measure work engagement because its equivalence is acceptable for different racial groups and this makes it appropriate for use in South Africa (Storm & Rothmann, 2003).

### **3.4 RESEARCH PROCEDURE**

The educators were told about the focus of the study and were given a letter describing what was required of them, after which they were asked if they were willing to participate in the study. Participation was voluntary and participants were told that they were free to withdraw from the study at whatever time and for whatever reason. If the individual chose to participate in the research study, then they were required to sign a letter of consent. Those who chose to participate were then required to complete the questionnaires provided, consisting of the biographical questionnaire, the Job demands-resources scale and the Utrecht Work Engagement Scale. Members of management involved were then asked to let the researcher know when to return, in order to collect the completed survey.

### 3.5 DATA ANALYSIS

Once the data had been collected from the sample it was then entered and then analysed using a computer programme known as the Statistical Package for the Social Sciences (SPSS) (2010). This is a very effective programme, considering the volume of data anticipated to be collected.

Descriptive statistics were used to analyse the data. Descriptive statistics consist of means, medians, standard deviations, skewness and kurtosis (Hinton, 1995). Cronbach alpha coefficients ( $\alpha$ ) were then used to assess the internal consistency of the measuring instruments (Gregory, 2007). The alpha coefficient conveys important information regarding the proportion of error variance contained in a scale, a test with high internal consistency will also tend to show stability of scores, and therefore is a useful measure of reliability (Gregory, 2007). When using Likert-type scales, such as in this study that it is imperative to calculate the Cronbach alpha in order to determine the internal consistency reliability for any scale or sub-scale being used (Gregory, 2007). Nunnally and Bernstein (1994), suggest at least a Cronbach alpha coefficient of around 0.70 as being an acceptable level of internal consistency.

The Pearson product-momentum correlation coefficients were used to specify the relationship between the variables in the study. The level of statistical significance was set up as  $p \leq 0, 05$ . Effect sizes (Cohen, 1988) were used in addition to statistical significance to determine the significance of relationships. Effect sizes indicate whether obtained results are important (while statistical significance may often show results which are of little practical relevance). As the use of only statistical significance testing in a routine manner has been criticised by editors, with the request to place more emphasis on effect sizes (Steyn, 1999), with a medium effect size seen as ranging between 0.30 to 0.49 and a large effect size ranging from 0.50 and above (Steyn, 1999).

Confirmatory factor analysis was conducted on both the JDRS and the UWES in order to establish the number of factors of these scales that suited this studies data best. Confirmatory factor analysis is used in order to augment the existing factor structure of a particular measuring instrument (Tabashnick & Fidell, 2001). A factor is an underlying structure of an instrument (Tabashnick & Fidell, 2001). Confirmatory factor analysis was conducted due to the fact that it is a powerful statistical tool that can be used to confirm the underlying factors that best fit a particular set of data in terms of a particular measurement scale, (Tabashnick & Fidell, 2001).

Next, stepwise regression analysis was conducted to determine whether job demands and resources held predictive value for work engagement. Regression was used to analyse whether two or more predictors (independent variables) will predict a criterion (dependent variable) (Howell, 1995). In the case of using stepwise regression to determine whether job demands and resources predict work engagement. The first step used job demands and the second step used job resources.

### **3.6 CHAPTER SUMMARY**

Firstly, the research design was shown to be cross-sectional and the survey technique was used. Secondly, the participants were discussed, i.e. educators, as well as the sampling method chosen. The research instruments were elaborated upon and lastly the procedure and statistical analysis was reported.

The results of the research will be presented in the next chapter.



## CHAPTER 4 – RESULTS AND DISCUSSION

### 4. INTRODUCTION

This chapter includes the presentation of the results. Firstly, descriptive statistics are presented, including minimum, maximum, mean, standard deviation, skewness, kurtosis and the reliability. Secondly, the results of the factor analysis are reported and then the results of the Pearson's correlations are shown. Lastly, the results of the stepwise regression are presented and then explained. The chapter then proceeds with a discussion of the results.

#### 4.1 DESCRIPTIVE STATISTICS

Descriptive statistics for all measures used in the study are reported in Table 2. According to Table 2, the scores of the JDRS and the UWES are distributed normally. The Cronbach alpha coefficients of both the measuring instruments are considered to be acceptable compared to the guidelines of  $\alpha > 0.70$  (Nunnally & Bernstein, 1994).

Table 2:

##### *Descriptive Statistics*

	Minimum	Maximum	Mean	Std. Deviation	Skewness	Kurtosis	Alpha
Overload	13.00	28.00	21.669	2.988	-0.142	-0.182	0.736
Insecurity	3.00	12.00	5.586	2.831	0.797	-0.568	0.932
Growth Opportunities	12.00	24.00	19.541	2.749	-0.154	-0.534	0.762
Relationships	3.00	8.00	7.0318	1.100	-1.117	0.983	0.776
Control	7.00	26.00	15.363	3.769	0.524	0.293	0.762
JDRS Total	86.00	150.00	124.872	11.532	-0.379	0.246	0.845
UWES Vigour	10.00	36.00	29.026	5.018	-1.163	1.548	0.821
UWES Dedication	10.00	30.00	24.924	4.392	-1.203	1.633	0.843
UWES Absorption	12.00	36.00	28.733	5.073	-0.938	0.907	0.737
UWES Total	41.00	102.00	82.681	12.945	-1.138	1.338	0.909

## 4.2 FACTOR ANALYSIS

Confirmatory factor analysis was used to determine the number of factors for each scale. The results of the factor analysis for the UWES confirmed a three-factor model. The three factors explain 61% of the total variance. The three factors can be identified as vigour, dedication and absorption and are consistent with those found by Schaufeli et al., (2002).

Factor analysis done on the JDRS indicated that a six-factor model suits the data best and these factors explain 52% of the total variance. The six factors can be identified as occupational support, relationships with colleagues, growth opportunities, job control, insecurity and overload. Although Jackson and Rothmann (2005) found seven factors, the six found in this study are still consistent with those of Jackson and Rothmann (2006).

## 4.3 PEARSON MOMENT CORRELATION

The Pearson-moment correlation coefficients were done to determine the relationship between job demands, job resources and work engagement. The results are indicated in Table 3.

Table 3:

### *Pearson Correlation Coefficients*

	1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
1. Overload											
2. Insecurity	0.268**										
3. Org support	-0.265**	-0.129									
4. Growth opps	-0.152	-0.218**	0.539***								
5. R/Ships	-0.145	-0.111	0.533***	0.399**							
6. Control	-0.122	-0.080	0.434**	0.454**	0.125						
7. Vigour	-0.173*	-0.106	0.451**	0.528***	0.360**	0.404**					
8. Dedication	-0.105	-0.158*	0.471**	0.642***	0.380**	0.358**	0.838***				
9. Absorption	0.046	-0.035	0.286**	0.431**	0.160*	0.266**	0.602***	0.669***			
10. UWES Total	-0.085	-0.109	0.447**	0.591***	0.331**	0.382**	0.908***	0.926***	0.852***		
11. JDRS Total	0.095	0.147	0.810***	0.673***	0.502***	0.669***	0.505***	0.538***	0.386**	0.529***	

\* $p < 0.05$

+  $r > 0.30$  - Practically significant (medium effect)

\*\*  $p < 0.01$                       ++  $r > 0.50$  - Practically significant (large effect)

Inspection of Table 3 indicated that Overload displayed a statistically significant relationship ( $p < 0.01$ ) with insecurities and a significantly negative relationship with vigour ( $p < 0.05$ ).

Further inspection indicated that *Job insecurities* only has a negative statistically significant relationship with dedication ( $p < 0.05$ ).

Organisational support, yielded statistically and practically significant (large effect) relationships with growth opportunities ( $p < 0.01$ ) and relationships with colleagues ( $p < 0.01$ ). Further inspection of Table 3 indicated that support has statistically and practically (medium effect) significant relationships with control, vigour, dedication, as well as UWES total. Support also shows a significant negative correlation with overload and a significant positive relationship with absorption.

Growth Opportunities displays statistically significant and practically significant (large effect) relationships with vigour, dedication and UWES total ( $p < 0.01$ ). This variable also has practical (medium effect) and significant relationships with relationships with colleagues, control and absorption.

Relationships with colleagues indicates a practically (medium effect) and statistically significant relationship with vigour ( $p < 0.01$ ), dedication ( $p < 0.01$ ) and UWES total ( $p < 0.01$ ). Furthermore, 'relationships with colleagues' also indicated a statistically significant relationship with absorption ( $p < 0.05$ ).

Job Control displayed statistically and practically (medium effect) significant relationships with vigour ( $p < 0.01$ ), dedication ( $p < 0.01$ ) and UWES total ( $p < 0.01$ ). Furthermore, control has a significant relationship with absorption ( $p < 0.01$ ).

Vigour displayed a statistically significant ( $p < 0.01$ ) as well as a practically significant relationship (large effect) with dedication, absorption and UWES total.

Dedication displayed a statistically significant relationship with absorption ( $p < 0.01$ ) and UWES total with practical significance (large effect).

Absorption displayed a statistically significant relationship ( $p < 0.01$ ) as well as practically significant relationship (large effect) with UWES total.

The UWES total displayed a statistically significant relationship ( $p < 0.01$ ) as well as practically significant relationship (large effect) with the JDRS total, growth opportunities, as well as the three dimensions of the UWES. It also displayed a statistically ( $p < 0.05$ ) and practically (medium effect) significant relationship with organisational support, relationships with colleagues and control.

The JDRS total displayed statistically and practically significant relationships (large effect;  $p < 0.01$ ), with support, growth opportunities, relationships with colleagues, control, vigour, dedication and the total score of the UWES. JDRS total also displayed a practical and significant relationship (medium effect) with absorption ( $p < 0.01$ ).

#### **4.4 STEPWISE REGRESSION ANALYSIS**

Next, stepwise regression analysis was done in order to determine whether job demands and resources could predict work engagement.

The variables were entered into the regression analysis in two steps. In the first step, the UWES total, Vigour, Dedication and Absorption (as measured by the UWES) were entered as dependent variables and job demands (insecurity and overload, as measured by the JDRS) were entered as independent variables. As evident in Table 4 neither of the job demands have significant relationships with the UWES total, or its dimensions. The  $p$  values therefore indicate that job demands do not hold predictive value for work engagement

( $F=1.18$ ;  $p > 0.05$ ; and  $R^2 = 0.02$ ).

In the second step, job resources (organisational support, growth opportunities, relationships with colleagues and job control) were entered as independent variables. As evident in Table 4, job resources do hold predictive value for work engagement. Specifically, there are statistically significant relationships between all the job resources and the UWES total

( $F = 23.82$  ;  $R^2 = 0.39$ ;  $P = 0.00$ ), as well as with the dimensions of work engagement, namely vigour ( $P = 0.00$ ), dedication ( $P = 0.00$ ), and absorption ( $P = 0.00$ ). This means that job resources are good predictors for vigour, dedication, absorption and work engagement.

Table 4:

*Stepwise regression analysis*

Variable	UWES TOTAL					VIGOUR					DEDICATION					ABSORPTION					
	<i>F</i>	<i>B</i>	<i>SE</i>	<i>R</i> <sup>2</sup>	<i>P</i>	<i>F</i>	<i>B</i>	<i>SE</i>	<i>R</i> <sup>2</sup>	<i>P</i>	<i>F</i>	<i>B</i>	<i>SE</i>	<i>R</i> <sup>2</sup>	<i>P</i>	<i>F</i>	<i>B</i>	<i>SE</i>	<i>R</i> <sup>2</sup>	<i>P</i>	
<b>JOB DEMANDS</b>																					
<b>Step 1</b>																					
Insecurity		-0.42	0.38				-0.11	0.15				-0.22	0.13				-0.09	0.150			
Overload		-0.26	0.36				-0.26	0.14				-0.09	0.12				0.10	0.142			
Insecurity + overload	1.18			0.02	0.31	2.70			0.03	0.07	2.32			0.03	0.102	0.35				0.005	0.704
<b>JOB RESOURCES</b>																					
<b>Step 2</b>																					
Org support		0.28	0.22				0.12	0.09				0.09	0.07				0.07	0.097			
Growth opp		2.09	0.38				0.58	0.15				0.81	0.12				0.69	0.17			
R/ships		0.92	0.91				0.66	0.36				0.44	0.3				-0.18	0.41			
Control		0.42	0.26				0.25	0.10				0.08	0.08				0.09	0.116			
All Resources	23.82			0.39*	0.000*	20.55			0.35*	0.000*	30.35			0.44*	0.000	9.18				0.195*	0.000*

\**p* > 0.05

#### 4.5 DISCUSSION OF RESULTS

The findings indicate a high internal consistency for all of the instruments used in this study. Firstly descriptive statistics were analysed and it was found that Cronbach's alpha for the JDRS total was 0,845 and the UWES total was 0,909. The Cronbach alpha coefficients ( $\alpha$ ) were used as a reliability estimate for all of the instruments used in this study and were considered to be acceptable compared to the guidelines of  $\alpha \geq 0.70$  (Nunnally & Bernstein, 1994). These results are consistent with those of Rothmann, Mostert and Strydom's (2006), as well as Coetzer and Rothmann's (2007) and therefore indicate that there is a high level of internal consistency for the JDRS and the UWES.

Secondly, confirmatory factor analysis was conducted on both the JDRS and the UWES. The analysis conducted on the UWES found that a three factor model best suits the data in this study, thus confirming the discussion of Schaufeli et al. (2002), that engagement is measured by the three factors these being, vigour, dedication and absorption. Confirmatory factor analysis conducted on the JDRS, found that a six factor model suits the data best. This is inconsistent with Jackson and Rothmann (2005), who found that the dimensions of the JDRS consisted of *seven* reliable factors, namely organisational support, growth opportunities, overload, job insecurity, relationship with colleagues, control, and rewards. Results from this study indicated that *rewards* did not feature as a dimension on its own but was incorporated under *growth opportunities*. This is consistent with Rothmann, Mostert and Jackson (2006), who also did not find a dimension consistent with *rewards* but included it as part of what they called 'job advancement.' Other studies using the JDRS have used different names for the dimensions found- some

more general than others, for example Rothmann, Mostert and Jackson (2006) have the dimension called organisational support, which (for them) encompasses relationships with colleagues and supervisors (among others), whereas in this study relationships is seen as a separate dimension to organisational support. The findings therefore confirm that there is definite overlapping of constructs in the JDRS and that some dimensions are more general and encompass other constructs, which some researchers may see as separate dimensions, i.e. opportunities to learn and career opportunities can be combined to form growth opportunities.

Thirdly, Pearson-momentum correlation coefficients were used to specify the relationship between variables used in the study. It was hypothesized that a relationship between job demands and resources, as measured by the JDRS, and work engagement, as measured by the UWES existed. While this hypothesis was generally supported by findings, other interesting results also emerged when in terms of specific job resources having more of an effect than others on work engagement.

Findings of the study indicate that there is a practically significant relationship (large effect) between work engagement and growth opportunities, which indicates that educators that are offered these resources in the job have higher levels of work engagement. *Growth opportunities* in a job, such as variety, learning opportunities and autonomy, play an intrinsic motivational role by fostering the employees' growth, learning and development. An increase in this specific job resource will increase the overall work engagement level of educators. A work environment that offers these resources will foster the willingness of the educator to dedicate his or her efforts and



abilities to the work task, for example, one that offers workshops on new teaching techniques or skills development. This finding is supported by Coetzer and Rothmann (2007), who found that growth opportunities are significantly related to work engagement, as well as Schaufeli and Bakker (2004) who also found that if employees are provided with variety in their jobs, learning opportunities and autonomy, they are more likely to engage in their work.

In particular, *growth opportunities* had a practically significant (large effect) correlation with dedication. This means that not only are educators with more growth opportunities more likely to be engaged in their work, but specifically feel more dedicated to their jobs. This is especially important in South Africa where educators need to be dedicated in order to combat the low literacy levels and achieve good matric results. Dedication is characterised by deriving a sense of significance from one's work, by feeling enthusiastic and proud about one's job, and by feeling inspired and challenged by it (Rothmann, 2003) and therefore it makes sense that it would be easier for educators who are offered opportunities for growth in their jobs to feel dedicated and find it easier to identify with their job. This finding is consistent with that of Jackson, Rothmann and Vijver (2006).

Possible reasons why growth opportunities have a practically significant correlation with work engagement for educators in this study may indicate that this resource is highly valued and that it is not offered enough. It also may indicate a growing need for career development, which includes providing opportunities for employees to learn new skills and to develop themselves, as well as opportunities to advance in the organisation and help them to manage their careers (Rothmann, 2003).

The findings also indicate a practically and statistically significant correlation between organisational support and work engagement. Organisational support, such as the relationship with supervisors, role clarity, information, communication and participation, plays an extrinsic motivational role by being instrumental in achieving work goals (see Schaufeli & Bakker, 2004). This shows that educators experience work engagement when they have flow of information, communication, role clarity and participation in decision-making. This finding is supported by research conducted by Saks (2006), who found that employees' engagement with both jobs and organisations is positively related to the organisational support they receive. Leiter and Maslach (1988) and Schnorpfel, et al., (2002) confirm that regardless of its specific form, support has been found to be associated with greater engagement.

Furthermore, organisational support showed a significant negative correlation with overload, which indicates that the less support educators have, the more stressed out they feel. This is consistent with Maslach, et al., (2001) whose results showed that a lack of support has consistently been related to burnout. Within a teaching environment, this would mean that if educators are not provided with sufficient support by the school, that they may be more prone to experiencing the negative effects of emotional and physical overload- and this could lead to stressed and burnt out educators, which would impact negatively on productivity and performance.

Possible explanations for the practically significant correlation (medium effect) between organisational support and work engagement among educators can be understood through the use of organisational support theory: this theory maintains that mutual commitment between employees and an employer starts with the organisation providing a supportive

and caring atmosphere for employees and employees reciprocate by feeling attached, more engaged and actively participate to achieve organisational goals. The underpinning social exchange theory predicts that the exchange of favourable treatment could be prolonged if the receipt of resources from another party is highly warranted and valuable and the actions are considered and not forced. (Foong-ming, 2008). In other words, it is clear from the findings, that educators value organisational support and thus if they receive this resource, they will reciprocate by feeling engaged in their work.

Schools should therefore address the level of organisational support that employees receive in terms of role clarity, reduced-load work arrangements, leader and management support and guidance in terms of career prospects and task accomplishment, further growth and development opportunities and the degree of participation experienced by employees in decision-making procedures (Coetzer & Rothmann 2007). These practices might help to alleviate the negative effects of the perceived sources of job stress and the psychological experiences of job insecurity that may potentially result in disengagement.

Further, *Job control* displayed the third highest significant correlation with vigour, dedication, absorption and UWES total. In other words, the more communication, participation and contact possibilities educators feel they have at work, the more engaged they feel. This finding is validated by Hakanen et al. (2006), who reported that job resources in the form of job control, information, supervisory support, innovative climate and social climate, are each positively related to work engagement.

Terry and Jimmieson, (1999) support that control has been identified as a factor which mitigates the effects of a wide range of stressors (such as job demands) and is also seen

as a mechanism through which the potentially detrimental effects of increased demands can be avoided because control enables the person to adjust demands to his or her current needs and circumstances. In this case, it is clear that *job control* has a positive relationship with the work engagement of educators, indicating that they have good levels of control in their job. This finding implies that there seems to be a good level of communication and participation within the schools studied.

It is essential for employers to foster job control for all workers, whenever possible. If jobs could be redesigned with more decision latitude, opportunities for taking responsibility through participative decision making, they would allow demands to be seen as challenges and would be associated with increased learning and motivation, with more effective performance and less risk of illness.

Interestingly, *Relationships with colleagues* indicated weak correlations with the dimensions of work engagement, as well as with the UWES total. This shows that educators did not find relationships with colleagues and supervisors to be as important predictors in work engagement as growth opportunities, for instance. This finding must not be discounted however, as the results do indicate a statistically significant correlation between relationships and work engagement (although weak). This result is supported by Hillebrand (1989) who maintained that healthy relationships with colleagues and school principals increase educational concerns and goal attainment. These findings strengthen the argument that organisations should engage in the integration of employees so as to create group cohesion among employees and departments within the organisation (Lambert, Hogan, Barton & Lubbock, 2001). Moreover, healthy relationships with

colleagues were rated as important factors in job satisfaction and work engagement based on Van der Westhuizen and Smit's (2001) research.

A possible explanation for the correlation being not as significant as the other resources may be because educators place more value on organisational support (which includes collegial support) and growth opportunities. This means that relationships with their colleagues do enhance their work engagement but not as much as the other resources.

With regards to answering the research questions proposed, the answer to the first research question of how job demands, job resources and work engagement are conceptualised within the literature is dealt with at length, within the literature review (refer to chapter 2). The second and third research questions, however have been answered by the regression analysis, which will be discussed now.

The two job demands, namely overload and insecurity did not display practically or statistically significant correlations with work engagement and only accounted for one percent of the variance in the UWES total. *Overload* did however display a statistically significant relationship with vigour, indicating that educators with too much workload find it difficult to have high levels of energy, mental resilience while working and willingness to invest effort in their work. These results are in line with findings by Maslach (1993), which explain that job demands such as workload drain the employee's energy and, in an attempt to cope with the resulting exhaustion, the employee withdraws mentally. When employees withdraw mentally, their work engagement levels will decrease. Schaufeli and Bakker (2004) also found that job demands lead to burnout, which in turn might impact on the work engagement of employees.

*Job Insecurity* had a weak negative relationship with dedication, indicating that educators find it difficult to be dedicated to their work if they feel insecure. Van den Berg, Manias and Burger (2008) too found that high demands or stressors related to job insecurity, impacted negatively on the levels of vigour and dedication. The negative effects of high job demands may be reduced by job resources, such as providing feedback, social support and leader/manager guidance (Schaufeli & Bakker 2004). Additionally, the significant relationship between overload and insecurity suggests that the more overloaded educators feel, the more insecure they feel about their jobs. This suggests that it would be beneficial for educators to learn coping strategies (for instance) or for schools to investigate the reasons why overloading is occurring. By doing this, educators would feel more safe and secure in their jobs.

Results of the stepwise regression analysis showed some interesting findings. The first step indicated that job demands, namely insecurity and overload did not show predictive value for work engagement or any of its three dimensions. This is consistent with many studies that shows empirical evidence to be supportive of the idea that job demands and resources are responsible for two different processes. Accordingly, job demands are related to strain (including lack of energy and development of health problems) and job resources are related to motivation (including engagement with or disengagement from work, and commitment). The literature does not specifically focus on the fact that job demands do not predict work engagement but that it rather predicts burnout. Thus, since this is the case, it follows that it cannot predict both. Several studies have provided evidence that, across different professions, sectors and countries (Bakker & Demerouti, 2007), job demands are related to burnout (Bakker, Demerouti, de Boer & Schaufeli,

2003a; Bakker, Demerouti, & Schaufeli, 2005) and predict burnout over time (Hakanen, Schaufeli, & Ahola, 2008). This means that job demands do not predict work engagement and therefore the results of this study confirm previous findings.

In the context of this study, it can then be said that job demands (insecurity and overload) do not have any significant effect on educators' work engagement and also do not have any predictive value for work engagement. A possible explanation for this may be that, educators in South Africa have become resilient because of having to adapt to many changes within education and therefore do not feel the effects of job demands, or that these demands may indirectly affect work engagement by manifesting in other states such as burnout, stress and disengagement.

The second step of the regression analysis revealed that job resources do hold predictive value for work engagement. Specifically, growth opportunities, organisational support, job control and relationships with colleagues had significant relationships with the UWES total ( $F = 23.82$  ;  $R^2 = 0.39$ ;  $P = 0.00$ ), as well as its dimensions, namely vigour, dedication and absorption. These findings are in line with many studies, including Hakanen et al., (2006); Llorens et al., (2006) and Schaufeli and Bakker, (2004), who have consistently found that job resources (and not job demands) are positively related to work engagement.

Several studies have shown a positive relationship between job resources and work engagement. For example, Schaufeli and Bakker (2004) found evidence for a positive relationship between three job resources (performance feedback, social support, and

supervisory coaching) and work engagement (vigor, dedication and absorption) among four different samples of Dutch employees. More specifically, they used structural equation modelling analyses to show that job resources (not job demands) exclusively predicted engagement. This study was replicated in a sample of over 2000 Finnish educators (Hakanen et al., 2006) and the results showed that job control, information, supervisory support, innovative climate and social climate were all positively related to work engagement. Conceptually similar findings were reported by Llorens et al. (2006) in a Spanish context.

In addition, Koyuncu, et al., (2006) examined potential antecedents and consequences of work engagement in a sample of women managers and professionals employed by a large Turkish bank. Results showed that work life experiences, particularly control, rewards and recognition and value fit, were significant predictors of all three engagement measures. These studies suggesting a relationship between job resources and engagement, although conducted among different populations, are cross-sectional and are therefore in line with the design and results of this study and confirm the importance of job resources in fostering work engagement among educators in South Africa.

These results are particularly meaningful within the teaching environment, and specifically in South Africa, where the education department and schools are constantly seeking ways to motivate educators and improve the quality of education. These results show a distinct connection between educators' levels of resources and their levels of vigour, dedication and absorption, as well as work engagement as a whole.



This leads to the answer to the final research question of whether job demands and resources can be viewed as antecedents of work engagement. From the above discussion and results, it is concluded that job resources are important antecedents of work engagement. Job resources reduce the impact of job demands on strain, are functional in achieving work goals, and stimulate personal growth, learning, and development. Job demands did not however prove to have any predictive power in terms of work engagement.

#### **4.6 CHAPTER SUMMARY**

Firstly, the results were all presented, followed by a discussion of each of them. The descriptive statistics were discussed and showed that the scores had a normal distribution and that the scales used were reliable. Secondly, there was a discussion of the factor analysis and the results revealed a three-factor model for work engagement (UWES), which was shown to be consistent with previous research, as well as a six factor structure for the JDRS. Thirdly, correlation coefficients were presented, showing significant relationships specifically between work engagement and growth opportunities and organisational support. Possible explanations were provided as to why these results occurred. Thirdly, the results of the stepwise regression analysis were explored and the findings revealed that job resources hold predictive value for work engagement. This was not the case for job demands, however.

The next chapter will provide conclusions to the discussion, as well as recommendations and limitations to the study.

## **CHAPTER 5 – CONCLUSIONS, RECOMMENDATIONS AND LIMITATIONS**

### **5.1 CONCLUSION**

In this section, conclusions are presented regarding the specific theoretical objectives and the results of the empirical research.

#### **5.1.1 Conclusion regarding the specific theoretical objectives**

Work engagement has been defined and operationalised in its own right as “...a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication, and absorption” (Schaufeli et al., 2002). The concept of work engagement consists of three dimensions, namely vigour, dedication and absorption (Schaufeli & Bakker, 2001). Vigour is characterised by high levels of energy and mental resilience while working, the willingness to invest effort in one’s work, not being easily fatigued, and persistence even in the face of difficulties. Dedication is characterised by deriving a sense of significance from one’s work, by feeling enthusiastic and proud about one’s job, and by feeling inspired and challenged by it. Absorption is characterised by being totally and happily immersed in one’s work and having difficulties detaching oneself from it.

Through the use of the Job Demands-Resources model, the relationship between job demands, job resources and work engagement was explored. According to Bakker and Demerouti (2008), there are many drivers of work engagement, including job resources. Job resources refer to the physical, psychological, social, or organisational aspects of a job that (1) may reduce job demands and the associated physiological and psychological costs, (2) are functional in achieving work goals, and (3) stimulate personal growth, learning, and development. Job resources are motivational in nature and therefore enhance work engagement (Bakker & Demerouti, 2007).

Previous studies have consistently shown that job resources such as social support from colleagues and supervisors, performance feedback, skill variety, autonomy, and learning opportunities are positively associated with work engagement (Bakker & Demerouti, 2007). They are assumed to play either an intrinsic motivational role because they foster employees' growth, learning and development, or an extrinsic motivational role because they are instrumental in achieving work goals.

Job demands, on the other hand represent characteristics of the job that potentially evoke strain, in cases where they exceed the employee's adaptive capability. More specifically, job demands refer to those aspects of a job that require sustained physical and/or psychological effort and are therefore associated with certain physiological and/or psychological costs, such as strain and burnout (Bakker & Demerouti, 2007). Previous research shows evidence that job demands have a negative impact on work engagement. Internationally, Maslach (1993) found that job demands such as work overload drain the employee's energy and, in an attempt to cope with the resulting exhaustion, the employee withdraws mentally. When employees withdraw mentally, their work engagement levels will decrease. Schaufeli and Bakker (2004) also found that job demands lead to burnout, which in turn impacts on the work engagement of employees. They suggest that the effects of high job demands may be reduced by job resources, such as providing feedback, social support and leader/manager guidance and support (Schaufeli & Bakker 2004).

### **5.1.2 Conclusion regarding the specific empirical objectives**

The aim of the study was to investigate the relationship between job demands, job resources and work engagement, and to find out whether job demands and resources hold predictive value for work engagement and can thus be named antecedents.

The first specific empirical objective was to determine how job demands, job resources and work engagement are conceptualised within the literature. This was discussed at length within the literature review and many conceptualisations were explored.

The second specific empirical objective was to determine the relationship between job demands, job resources and work engagement. A significant correlation was found between job resources and work engagement. More specifically, there were significant correlations between growth opportunities and work engagement, as well as organisational support and work engagement. Job demands on the other hand, namely overload and insecurity, did not display practically or statistically significant correlations with work engagement and only accounted for one percent of the variance in the UWES total. These findings are in line with previous research.

The third specific empirical objective was to determine whether job demands and job resources predict work engagement and thus can be considered as antecedent variables. Research conducted by Schaufeli and Bakker (2004) showed that job resources (not job demands) exclusively predicted engagement, therefore it was expected that job resources would hold predictive value for work engagement. It can therefore be concluded that job resources are predictors of work engagement for educators in Pietermaritzburg.

The research topic was chosen in order to fill a gap in the literature. This gap was specifically to do with educators in South Africa and focused on how their work engagement is affected by their job demands and resources. Educators are highly valued in society and have had a lot of negative media coverage recently, which meant that teaching is an occupation of interest, in out terms of finding out what factors affect it. The main purpose was to find out what the relationship is between job demands and resources and work engagement among educators and whether they could be considered as antecedents of work engagement. The research was done in Pietermaritzburg, because of contacts in the area, which made the schools more easily accessible and willing to participate.

The study found that job resources play a vital role in the work engagement of educators in Pietermaritzburg. More specifically, growth opportunities and organisational support proved to have highly significant correlations with work engagement. Ultimately it means that variety, learning opportunities and autonomy as well as relationships with supervisors, role clarity, information, communication and participation, play motivational roles by being instrumental in achieving work goals and by fostering the employees' growth, learning and development. These are the two areas that schools need to focus on in order to provide their staff with the opportunity to feel engaged in their work and to increase well-being. Although these two resources showed the most significant relationships with work engagement, the other resources of job control and relationships with colleagues are also important and should not be discounted as contributing towards educators' work engagement. It is also vital that educators have good levels of communication, information, participation as well as healthy relationships with

colleagues and school principals, which will increase educational concerns, goal attainment and work engagement.

Results from the regression analysis confirmed the findings from the correlations and concluded that job resources hold predictive value for work engagement. It also showed that job demands do not share these predictive values. This is extremely important in terms of the country finding ways to increase job resources for educators and to realise the impact these could have on our educators' work engagement levels, as well as their well-being.

Ultimately it can be concluded that the study reached its objectives of broadening knowledge on the topic and providing insight into how the demands and resources of the teaching occupation affect educators work engagement.

## **5.2 LIMITATIONS OF THE RESEARCH**

The following limitations can be identified in this study:

- ❖ The study was conducted in a small area, namely Pietermaritzburg, and as a result, the study population used was small, which made it difficult to generalise beyond the population.
- ❖ A cross-sectional survey design was used in this study, which is not ideal for making causal interpretations. In future, longitudinal studies should be considered where inferences in terms of cause and effect can be made.
- ❖ Self-reporting measures were solely used in this study, which can lead to issues of accuracy.

- ❖ The sample consisted of 87% white, female, English speaking educators (mostly over the age of 48), which may indicate that the findings of the study pertain mostly to them and may not produce the same results in a rural area for instance, where the sample composition would be different.
- ❖ The schools used in the sample are all situated within central Pietermaritzburg, which means that limitations in terms of location arise, i.e. the schools are not representative of all the schools in and around the area.

## **5.3 RECOMMENDATIONS**

### **5.3.1 Recommendation for future research**

The results of this study points to many avenues that can be explored further:

It is recommended that a larger, more representative sample is used in future, which will provide increased confidence that the results would be consistent across similar groups. In this study, a cross-sectional design was employed to assess interrelationship among variables within a population. For future research, it is recommended that research be repeated using longitudinal design concerning the dynamics of job demands, job resources and work engagement. This should be undertaken in order to gain greater understanding of these phenomena.

Future research on work engagement would benefit from a resolute focus on educators and interventions. This research would make the most valuable contribution by not only focusing on something positive, but also working directly on increasing the prevalence of positive relationships with work. Education institutions in South Africa need to attend to

the work engagement of their staff by measuring it and providing feedback to individuals and academics at all levels should be targeted with interventions to promote work engagement. Although more research is needed in this area, it is clear from the results of this study that it is highly important that educators have the resources necessary to do their work, more specifically they need growth opportunities and organisational support. These can be in the form of workshops, skills development, better communication and participation, and support from colleagues and staff at higher levels.

Interventions are needed to develop task-level, social, and organisational job resources seem to be a promising starting point for improvements at schools. Enhancing job resources and preventing educators from burning out, seems to be a promising approach in tackling the issue of attrition in teaching and improving our education system as a whole. Promoting work engagement in our schools (and all organisations) could prove to be a liberating experience by giving choice and control to the educators and other staff members, but individuals have to arm themselves with the right skills and attitudes, and engage in a constant program of personal career development. With the direction from research, interventions can help guide this personal process of development and help to better our country's education. The results of this study suggest that interventions should be aimed at both the reduction of job demands and the increase of job resources. These institutions should aim at decreasing the workload and insecurity of educators, which can be expected to cause a decrease in experienced exhaustion and mental distance. Interventions aimed at increasing job resources such as growth opportunities will lead to more vigour, dedication and absorption, i.e. work engagement.



From a theoretical point-of-view, it is important that research on work engagement starts to use more elaborate research designs where causality is tested rigorously (using experimental or longitudinal designs) and where predictors and outcomes of work engagement are measured objectively. Moreover, it is worth to focus on the mechanisms through which work engagement leads to favourable outcomes by getting insight in the processes that it initiates or is involved in.

#### **5.4 CHAPTER SUMMARY**

In this chapter, conclusions regarding the theoretical and empirical objectives were made. The limitations of the research were pointed out and recommendations were made for future research. All theoretical and empirical objectives formulated for this research have been attained.

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