

**OCCUPATIONAL STRESS, BURNOUT, JOB  
SATISFACTION, WORK ENGAGEMENT AND  
ORGANISATIONAL COMMITMENT OF  
EDUCATORS ON SENIOR LEVEL IN THE  
SEDIBENG WEST DISTRICT**

Yolandé van Zyl, Hons. B.Soc.Sc.

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**Supervisor: Dr. J.H. Buitendach**

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## REMARK

The reader is reminded that all the references as well as the editorial style as prescribed by the *Publication Manual (5<sup>th</sup> edition)* of the American Psychological Association were followed in this thesis. These prescriptions are in line with the policy of the Programme for Industrial Psychology at the PU for CHE to use APA-style in all scientific documents as from January 1999.

The thesis is submitted in the form of two research articles.

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# SUMMARY

**Topic:** Occupational stress, burnout, job satisfaction, work engagement and organisational commitment of educators on senior level in the Sedibeng West District

**Key terms:** Stress, burnout, job satisfaction, work engagement and organisational commitment

The pace of changes in South African education institutions has profound effects on the teachers. Due to internal and external influences teaching is a much more demanding occupation than in the past, with significant consequences for the teacher. All the changes in the education system cause stress. Possible outcomes impacting on the teacher are burnout, work disengagement, job dissatisfaction and organisational commitment.

The objective of this research was to investigate the relationship between occupational stress, burnout, job satisfaction, work engagement and organisational commitment of educators on senior level in the Sedibeng West District – Vanderbijlpark.

The research method was by means of two separate studies, each consisting of a brief literature overview and an empirical study. A cross-sectional survey design was used. A stratified random sample of educators on senior level in the Sedibeng West District – Vanderbijlpark ( $N = 140$ ) was used. Six questionnaires were administered, namely, the Maslach Burnout Inventory-General Survey (MBI-GS), the Utrecht Work Engagement Scale (UWES), the ASSET Organisational Stress Screening Tool, the Minnesota Satisfaction Questionnaire (MSQ), the Organisational Commitment Questionnaire and a biographical questionnaire. Statistical analysis was carried out with the help of the SAS-program and Amos.

Limitations of the research are discussed, followed by recommendations for the teaching profession and future research.

# OPSOMMING

**Onderwerp:** Beroepsverwante spanning, uitbranding, werkstevredenheid, werksbegeestering en organisatoriese betrokkenheid van senior vlak-opvoeders in die Sedibeng-Wes Distrik.

**Sleuteltermes:** Spanning, uitbranding, werkstevredenheid, werksbegeestering en organisatoriese betrokkenheid.

Die pas van verandering wat tans volgehou word in die Suid-Afrikaanse opvoedingsinstansies het 'n hewige uitwerking op die opvoeders. As gevolg van interne en eksterne invloede, het opvoeding 'n geweldige, veeleisende beroep geword – meer as wat dit ooit in die verlede was. Hierdie verandering hou bepaalde gevolge in vir die opvoeder. Al die veranderinge wat plaasvind in die opvoedingssisteem veroorsaak spanning. Moontlike gevolge wat 'n beslissende invloed uitoefen op die opvoeder is: uitbranding, werkstevredenheid, werksontevredenheid en organisatoriese betrokkenheid.

Die oogmerk van hierdie werkstuk was 'n ondersoek na die verwantskap tussen beroepsverwante spanning, uitbranding, werksbevreemding, werksverpligtinge en die organisatoriese betrokkenheid van die senior vlak-opvoeders in die Sedibeng-Wes Distrik – Vanderbijlpark.

Die navorsingsmetode wat gevolg is, het berus op twee ondersoeke wat elk uit 'n kort literatuuroorsig en 'n empiriese studie bestaan het. Die ontwerp hiervan is opgestel volgens 'n dwarsnee-opname ontwerp. 'n Gestratifiseerde, ewekansige steekproef van 'n aantal opvoeders in die Sedibeng-Wes Distrik – Vanderbijlpark ( $N = 140$ ) is gebruik. Daar is ook gebruik gemaak van ses tipes vraelys in hierdie navorsingsproses: die Maslach Uitbrandings Vraelys – Algemene Opname, die Utrecht Werksbegeesteringskaal, die "ASSET Organisational Stress Screening Tool", die Minnesota Werkstevredenheidsvraelys, die Organisasoriese Betrokkenheidsvraelys sowel as 'n biografiese vraelys. Statistiese analise is uitgevoer met behulp van die SAS-program.



Beperkings van die ondersoek word bespreek gevolg deur die aanbevelings vir die onderwysberoep asook toekomstige navorsing.

# CHAPTER 1

## INTRODUCTION

The objective of this research is to investigate the relationship of occupational stress, burnout, job satisfaction, work engagement and organisational commitment.

In this chapter the problem statement is discussed. Thereafter the research objectives, which consists of a general objective and specific objectives, are provided. The research method is explained and finally the division of chapters is provided.

### 1.1 Problem Statement

In 1965, A. Kornhauser, an American professor, suggested in his acclaimed book, *The Mental Health of the Industrial Worker*, that mental health is not so much a freedom from specific frustrations as it is an overall balanced relationship to the world, which permits a person to maintain a realistic, positive belief in himself and his purposeful activities. Insofar as his entire job and life situation facilitate and support such feelings of adequacy, inner security, and meaningfulness of his existence, it can be presumed that his mental health will tend to be good. What is important in a negative way is not any single characteristic of his situation but everything that deprives the person of purpose and zest, that leaves him with negative feelings about himself, with anxieties, tensions, a sense of lostness, emptiness, and futility.

This description aptly reflects what most teachers are currently experiencing in schools throughout the U.K. (Travers & Cooper, 1996). Enormous change has taken place in teaching which most teachers find difficult to cope with. It is not that the majority of the changes are intrinsically flawed, but rather that the individual teachers have been unable to cope with the pace and extent of the change. Within a short period of time, a major restructuring of the

teaching profession, schools and the educational establishment has taken place, from the National Curriculum to local management of schools to budget holding at school level to student assessment. Most of these changes have been introduced without piloting or adequate preparation. Many of them, teachers agree, were needed, but the way they were introduced and the way in which change was managed (or not managed) has created an environment ripe for stress and its nefarious consequences for the individual students and education.

According to Norris (2001) education in South Africa was always segregated along racial lines, and the apartheid system of social engineering ensured that the majority of non-whites were denied access to white institutions and education of quality.

In June 1999, South Africa's second democratic elections were held, and the ANC Government was returned to power with an overwhelming majority. Now, as the country at last starts moving towards establishing a non-racial society based on a constitution that embodies equal rights for every person, the need to establish an equitable and effective education system has become a top priority. This requires a transformation process that will necessitate the management of diversity, and organisational changes (Norris, 2001).

Regardless of their source, nature, origin, pace, or strength, changes can have profound effects on their recipients (Newstrom & Davis, 2002). Countries undergoing enormous economic and social changes are vulnerable to patterns of occupational stress (Siu, 2002). South-African society has experienced and is still experiencing considerable socio-economic and political transformation (Dlamini, 1995). Never in the history of the world has there been such rapid, mammoth change as the period we are living in today (Schulte, 2003). The full effect of the world's move into the information age is staggering. The information age has caused change in every aspect of our lives and the uncertainty those changes have brought certainly has an influence on our everyday attitudes.

**Change alters the way we think.** Current changes and ways of thinking have threatened our status quo like never before. We suddenly find ourselves dealing with things that just a few years ago, or even a few months ago were not even an issue in our lives. The feeling that we have been abandoned in an unfamiliar world can take away all our positive energy.

**Change challenges our paradigms.** The changing environment makes it necessary for us to get in touch with the things we believe and why we believe them. We are challenged to understand the roots of our beliefs about other nations, people, the opposite sex, governments, freedoms, pecking order, business practices and strategies, etc.

**Change makes life more difficult.** Change means doing something a new way and doing something a new way sometimes means giving up what you know and do best. Learning and applying a new way will make life difficult for a while.

**Change causes stress.** The bottom line is that change in one's life causes stress. It is stressful to have to begin doing or thinking something different after years of comfortable habit. It is stressful to see things moving in a direction that a person may disagree with or feel is a mistake. In addition, it is stressful to have to leave what a person knows best and enter into the unknown land of learning. Change causes stress!

**Change will continue throughout our lifetime.** There is only one thing that will never change ... that is change itself. Change is a fact of life and will keep on changing (Schulte, 2003).

In South Africa education institutions are undergoing transformation and educators are continually faced with changes. Well-trained and competent teachers are essential in bringing about a well-educated citizen force, which can make a contribution to a country's economy (Kriel, 1995).

The change from the model of teaching and learning, which focused on qualifications consisting of subject with compulsory and elective elements, to

an outcomes-based education system, radically transformed institutions of education in South Africa. Outcomes-based education is an educational philosophy that is organised around several basic beliefs and principles, and starts with the belief that all students can learn and succeed. Although this new system implies greater autonomy for institutions of education in developing innovative and creative learning programmes that lead to the achievement of the applied competence of the qualification, it will require that all academic staff know how to design, implement and assess learning within an outcomes-based philosophy (Norris, 2001).

Many of the pressures of change associated with increased demands on time (e.g. changes in the curriculum) require teachers to assimilate proposed changes, examine their current practice and, in the light of new requirements, modify it. In addition, they are expected to evaluate the success of these modifications by assessing the progress of pupils, and to review their practice accordingly.

According to Meyer (1993) when change is imposed on schools, there is always the danger that policy makers will underestimate the complexity of social and educational realities. Furthermore, Meyer's study shows that educational change is more likely to succeed if people recognise the need for proposed changes and if change is perceived as having the potential of making life easier, rather than adding to teachers' workload (Meyer, 1993).

New ways of working have put enormous pressures on those working within schools. With increasing change and new policies, added administration and information packages have been introduced (Travers & Cooper, 1996; van Zyl & Pietersen, 1999). These changes place stress on the human system by demanding adjustments and accommodation (Quick, Nelson & Quick, 2001).

Stress means different things to different people (Kreitner & Kinicki, 1995). Stress has become one of the most serious health issues, a problem not just for individuals but also for their employers (Lu, 1999). Research has also established that high levels of occupational stress result in substantial costs to organisations and the community through health care expenses,

compensation payments, lost productivity and turnover (Cooper & Cartwright, 1994).

Formally defined, stress is an adaptive response, mediated by individual characteristics and/or psychological processes, that is a consequence of any external action, situation, or event that places special physical and/psychological demands upon a person (Kreitner & Kinicki, 1995). The environmental factors that produce such stress are referred to as stressors. Stated differently, stressors are a prerequisite to experiencing the stress response (Kreitner & Kinicki, 1995).

Stress has behavioural, cognitive and physiological outcomes. If a stressor is perceived as threatening, an individual tends to experience greater stress and more negative outcomes. People do not experience the same level of stress or exhibit similar outcomes for a given type of stressor (Kreitner & Kinicki, 1995). Negative outcomes can thus be avoided, provided the period of excessive pressure is not too long (Cranwell-Ward, 1990). This can be described in one of three ways – the stimulus approach, the response approach, or the interactional approach. The stimulus approach describe stress as an external factor or force.

Thus, people are able to withstand certain pressures, but their level of resistance varies (Cranwell-Ward, 1990). Some cope with excessive pressure in their lives, whilst others collapse very quickly. This approach has been developed further, stating that stress arises when the level of demand on the person departs from optimum conditions. People who adopt a response-bases approach focus on the reactions made by the person to environmental demands. The response may be physiological, for example a person's heart beats faster, or psychological, for example an individual feels irritable (Cranwell-Ward, 1990). This approach provides a useful stating point for understanding stress, but probably oversimplifies its complex nature. Responses may vary from situation to situation. This has led to a third view of stress, the interactional approach. This approach takes the understanding of stress a stage further, by intensively studying the interaction between the

person and his or her environment. This approach describes stress as the result of an imbalance between the level of demand placed on people, as they perceive it, and their perceived capability to meet the demands (Cranwell-Ward, 1990). From a transactional perspective, stress arises when the individual appraises the demands of a particular encounter. It is also argued that stress is individually defined; one person's stress can be another's excitement or energiser.

Burnout is a stress-induced problem common among members of the helping professions such as teaching, social work, employee relations, nursing, and law enforcement. It does not involve a specific feeling, attitude, or physiological outcome anchored to a specific point in time. Maslach and Schaufeli (1993) identify five common elements of the burnout phenomenon. These include a predominantly dysphoric system, such as mental and emotional exhaustion, where the emphasis is more on mental or behavioural symptoms than physical ones: burnout is work-related and its symptoms manifest themselves in normal persons who did not suffer from abnormal behaviour before, and decreased effectiveness and work performance occur because of negative attitudes and behaviours.

According to Vandenberg and Huberman (1999) teachers providing affective, instructional, and moral services to pupils of necessity make emotional demands on the service providers. These demands take place within a complex network of interactions; some interactions are intensive (pupils, colleagues, principal), whilst others are more remote, but they also have an impact on the quality of work-related interactions (parents, inspectorate, central administration). These more distant agents are characterised less by their social and emotional commitments to teachers' needs than by their high expectations, their sensitivity to public demands, and a greater emphasis on pupils' academic achievements. In the eyes of many teachers, these more remote agents in the educational enterprise take emotional energy, but give little back (Vandenberg & Huberman, 1999).

Maslach, Schaufeli and Leiter (2001) define burnout as a prolonged response to chronic, emotional and interpersonal stressors and is characterised by exhaustion, cynicism and inefficacy. The exhaustion component predicts stress-related health consequences and refers to feelings of being over-extended and drained of one's emotional and physical resources. Emotional exhaustion is due to a combination of personal stressors and job and organisational stressors. People who expect a lot from themselves and the organisations in which they work tend to create more internal stress, which in turn leads to emotional exhaustion (Maslach, Schaufeli & Leiter, 2001). Similarly, emotional exhaustion is fuelled by having too much work to do, by role conflict, and by the type of interpersonal interactions encountered at work. Frequent, intense face-to-face interactions that are emotionally charged are associated with higher levels of emotional exhaustion.

Over time, emotional exhaustion leads to depersonalisation, which is a state of psychologically withdrawing from one's job. This ultimately results in a feeling of being unappreciated, ineffective, or inadequate (Kreitner & Kinicki, 1995). The cynicism component refers to a detached response to various aspects of the job, whereas reduced efficacy indicates feelings of incompetence and lack of production at work (Maslach, Schaufeli & Leiter, 2001).

Another view expressed by Harvey and Brown (1988) is that those who experience job burnout as a result of job-related stress are those who are professionals and/or self-motivating achievers seeking unrealistic or unattainable goals. As a consequence of this they cannot cope with the demands of their job and their willingness to try drops dramatically.

Engagement is a positive, fulfilling and work-related state of mind that is characterised by vigour, dedication and absorption (Maslach et al., 2001). Vigour reflects the willingness and ability of the individual to invest effort in his/her job. This implies the presence of high levels of energy and mental resilience. Dedication refers to a sense of significance, enthusiasm and absorption whereas absorption reflects the full concentration and happiness in



being engrossed in one's work. Time passes quickly when the individual is carried away by the job (Maslach et al., 2001).

Maslach and Leiter (1997) state that engagement is characterised by energy, involvement and efficacy, which are considered the direct opposites of the three burnout dimensions.

Engaged individuals that view themselves as capable of dealing with the complete demands of the job are likely to increase their productivity (Leiter & Harvey, 1998).

Siu (2002) defines organisational commitment as the relative strength of an individual's identification with and involvement in an organisation. Two approaches can be followed when defining organisational commitment (Blau & Boal, 1987). In the first approach, commitment is seen as a behaviour during which the individual is viewed as committed to an organisation because it is too costly for him or her to leave. In the second approach the individual is committed to the organisation because of shared goals and the wish to maintain membership (Blau & Boal, 1987). Organisational commitment can take three distinct forms, affective, continuance and normative commitment (Meyer & Allen, 1991). A person participates in an organisation because he or she "wants to" (affective commitment). Because a person invests much time and energy in the organisation or may not be able to find another job, the person feels that she "needs to participate" (continuance commitment). Normative commitment boils down to the point in that the person believes it is the right thing to do or that she "ought to participate". Affective commitment seems therefore to buffer stressful situations, while continuance- and normative commitment may enhance the stressful situation, because the person would probably feel they have no choice. Chui and Kosinski (1995) found that organisational commitment is an important attitudinal variable that moderates the effect of occupational stress on strain.

One of the major significant behavioural manifestations of the experience of stress at work is low job satisfaction (Travers & Cooper, 1996). Individuals who are satisfied with their jobs are likely to be better ambassadors for the

organisation and show more organisational commitment (Agho, Price & Mueller, 1992). Motivated educators are a crucial component of effective schools. The degree of satisfaction that educators derive from their work will determine the effectiveness with which they fulfil their duties (Wevers & Steyn, 2002). Kreitner and Kinicki (1995) define job satisfaction as an effective or emotional response toward various facets of one's job. This definition means job satisfaction is not a unitary concept. Rather, a person can be relatively satisfied with one aspect of his job and dissatisfied with one or more other aspects.

Noe, Hollenbeck, Gerhart and Wright (1994) state that job satisfaction is the perception that a person's work fulfils his important job values, and suggests three aspects of job satisfaction. First, job satisfaction includes a person's values that are defined as an individual's conscious and unconscious desire to obtain something. Secondly, people have different perceptions of which values they regard as important. This is critical in ascertaining the nature and degree of their job satisfaction. One person may value the salary above all else, another the work itself and yet another the working conditions. Third, it is a person's perception of his present situation relative to the values that matter.

Needle, Griffin, Svendsen and Berney (1980) found that teachers reporting higher levels of job stress reported greater job dissatisfaction. One of the major significant behavioural manifestations of the experience of stress at work, specifically among teachers in this study, as one of the variables, is low job satisfaction.

Research regarding educators' occupational stress, burnout, job satisfaction, work engagement and organisational commitment may provide useful information to in turn provide some order and integration in the relationship between these variables.

The following research questions arise, based on the description of the problem:

- How are occupational stress, burnout, job satisfaction, work engagement and organisational commitment conceptualised in the literature?
- What is the relationship between occupational stress, burnout, job satisfaction, work engagement and organisational commitment of educators on senior level in the Sedibeng West District - Vanderbijlpark conceptualised?
- What is the current level of occupational stress of educators on senior level in the Sedibeng West District - Vanderbijlpark?
- What is the current level of burnout of educators on senior level in the Sedibeng West District - Vanderbijlpark?
- What is the current level of job satisfaction of educators on senior level in the Sedibeng West District - Vanderbijlpark?
- What is the current level of work engagement of educators on senior level in the Sedibeng West District - Vanderbijlpark?
- What is the current level of organisational commitment of educators on senior level in the Sedibeng West District - Vanderbijlpark?
- What is the relationship between occupational stress, burnout, job satisfaction, work engagement and organisational commitment of educators on senior level in the Sedibeng West District - Vanderbijlpark?
- What recommendations can be made for the prevention and/or management of occupational stress, burnout, job satisfaction, work engagement and organisational commitment of educators on senior level in the Sedibeng West District - Vanderbijlpark?
- Can the effect of occupational stress on burnout, job satisfaction, work engagement and organisational commitment of educators on senior level in the Sedibeng West District - Vanderbijlpark be predicted?

## **1.2 Research Objectives**

The research objectives are divided into a general objective and specific objectives.

### **1.2.1 General objective**

The general objective of this research is to investigate the relationship between occupational stress, burnout, job satisfaction, work engagement and organisational commitment of educators on senior level in the Sedibeng West District - Vanderbijlpark, in order to contribute to an understanding of the interaction between these variables, and the implication thereof for the management of occupational stress, burnout, job satisfaction, work engagement and organisational commitment in the specific setting.

### **1.2.2 Specific objectives**

- To conceptualise occupational stress, burnout, job satisfaction, work engagement and organisational commitment as conceptualised in the literature.
- To conceptualise the relationship between occupational stress, burnout, job satisfaction, work engagement and organisational commitment of educators on senior level in the Sedibeng West District - Vanderbijlpark.
- To determine the current level of occupational stress of educators on senior level in the Sedibeng West District - Vanderbijlpark.
- To determine the current level of burnout of educators on senior level in the Sedibeng West District - Vanderbijlpark.
- To determine the current level of job satisfaction of educators on senior level in the Sedibeng West District - Vanderbijlpark.
- To determine the current level of work engagement of educators on senior level in the Sedibeng West District - Vanderbijlpark.

- To determine the current level of organisational commitment of educators on senior level in the Sedibeng West District – Vanderbijlpark.
- To determine the relationship between occupational stress, burnout, job satisfaction, work engagement and organisational commitment of educators on senior level in the Sedibeng West District - Vanderbijlpark.
- To make recommendations for the prevention and/or management of occupational stress, burnout, job satisfaction, work engagement and organisational commitment of educators on senior level in the Sedibeng West District - Vanderbijlpark.
- To predict the effect of occupational stress on burnout, job satisfaction, work engagement and organisational commitment of educators on senior level in the Sedibeng West District - Vanderbijlpark.

### **1.3 Research Method**

The research method for each of the two articles which are submitted for the purpose of this thesis consists of a brief literature review and an empirical study. In the following paragraph, relevant aspects of the empirical studies conducted in this thesis are discussed.

#### **1.2.1 Research design**

A cross-sectional design with a survey as technique of data collection was used to research the objectives of this research. Cross-sectional designs are used to examine groups of subjects in various stages of development simultaneously, while the survey describes a technique of data collection in which questionnaires are used to gather data about an identified population (Burns & Grove, 1993). This design will be well suited to the descriptive and predictive functions associated with correlational research, in which relationships between variables are examined (Shaunessey & Zechmeister, 1997).

### 1.2.2 Study population

The study population could be defined as a stratified random sample of educators on senior level in the Sedibeng West District – Vanderbijlpark. The study population for this research consisted of 140 individuals. A total sample of 115 educators was eventually obtained. This represents a response rate of 82, 14%.

### 1.2.3 Measuring battery

Six questionnaires are used in the empirical study, namely: the ASSET Organisational Stress Screening Tool (Cooper & Cartwright, 2001), the Maslach Burnout Inventory–General Survey (MBI-GS) (Maslach et al., 1996), the Minnesota Satisfaction Questionnaire (MSQ) (Weiss, Dawis, England & Lofquist, 1967), the Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2002), the Organisational Commitment Questionnaire (Meyer, Allen & Smith, 1993) and a biographical questionnaire.

The ASSET Organisational Stress Screening Tool (Cooper & Cartwright, 2001) was used to measure the levels of occupational stress of educators on senior level in the Sedibeng West District - Vanderbijlpark, Cooper and Cartwright (2001) designed the ASSET as an initial screening tool, based on a large body of academic and empirical research, to help organisations assess the risk of stress in their workforce. It measures potential exposure to stress in respect to a range of common workplace stressors. It also provides important information on current levels of physical health, psychological well-being and organisational commitment and provides data to which the organisation can be compared. The ASSET is divided in four questionnaires. The first questionnaire measures the individual's **perception of his or her job**. This subscale includes questions relating to eight potential sources of stress, namely: work relationship; work-life balance; overload; job security; control; resources and communication; job overall; and pay and benefits. The second questionnaire measures the individual's **attitude toward his or her organisation**, and includes questions relating to perceived levels of

commitment both from and to the organisation. The third questionnaire focuses on the **individual's health**, aimed at specific outcomes of stress, and includes questions relating to both physical and psychological health. The fourth questionnaire focuses on **supplementary information**, i.e. the background information with specific references to academics in higher education institutions, and includes questions relating to factors that can affect stress.

The structure of each of the three main sections of the ASSET questionnaire (perception of your job; attitudes towards your organisation; and your health) was examined in detail, using the responses obtained from 2544 respondents. Each of the three main sections was then subjected to an exploratory factor analysis to explore the latent structure of the scale items Cooper and Cartwright (2001). Furthermore, the authors obtain inter-item correlations of low to moderated magnitude between the factors of the "Perceptions of your job" scale. Inter-item correlations of moderated magnitude were obtained for factors of the "Attitudes to your organisation" scale, concluding that the items are largely measuring different concepts. The correlation between the psychological well-being and physical health factors was ( $r = 0.657$ ), indicating the difficulty often experienced in distinguishing between physical and psychosomatic symptoms (Cooper & Cartwright, 2001). However, validity is still to be completed (ASSET manual, Cooper & Cartwright, 2001). Reliability is based on Guttman split-half coefficient. All but two factors returned coefficients in excess of 0.7, ranging from 0.60 to 0.911 (Cooper & Cartwright, 2001).

The Maslach Burnout Inventory-General Survey (MBI-GS) (Maslach et al., 1996) was used to measure burnout. The MBI-GS has three subscales: Exhaustion (Ex) consisting of five items; e.g.: "I feel used up at the end of the workday", Cynicism (Cy), consisting of five items; e.g. "I have become less enthusiastic about my work" and Professional Efficacy (PE) with six items; e.g. "In my opinion, I am good at my job". Together the sub-scales of the MBI-GS provide a three-dimensional perspective on burnout. Internal consistencies (Cronbach coefficient alphas) varied from 0,87 to 0,89 for Exhaustion, 0,73 to

0,84 for Cynicism and 0,76 to 0,84 for Professional Efficacy. Test-retest reliabilities after one year were 0,65 (Exhaustion) 0,60 (Cynicism) and 0,67 (Professional Efficacy) (Schaufeli et al., 1996). All items are scored on a 7-point frequency-rating scale ranging from 0 ("never"), to 6 ("daily"). High scores on Exhaustion and Cynicism, and low scores on Professional Efficacy are indicative of burnout. Storm (2002) confirmed the 3-factor structure of the MBI-GS in a sample of 2396 members of the South African Police Service (SAPS), but recommended that Item 13 should be dropped from the questionnaire. She confirmed the structural equivalence of the MBI-GS for different race groups in the SAPS. The following Cronbach alpha coefficients were obtained for the MBI-GS: Exhaustion: 0,88; Cynicism: 0,79, Professional Efficacy: 0,78 (Storm, 2002).

The Minnesota Satisfaction Questionnaire (MSQ) (Weiss et al., 1967) was used to measure job satisfaction. The MSQ (shortened version) has 20 items and measures satisfaction with various aspects of a job. Test-retest reliabilities of 0,70 and 0,80 were found over a span of a week and a year respectively (Cook et al., 1981). Rothmann (2001) found a Cronbach alpha coefficient of 0,96 and an inter-item correlation of 0,22, which is acceptable for broad higher order constructs (Clark & Watson, 1995).

The Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2002) was used to measure the levels of engagement of the participants. The UWES includes three dimensions, namely: vigour, dedication and absorption, which is conceptually seen as the opposite of burnout and is scored on a seven-point frequency-rating scale varying from 0 ("never") to 6 ("every day"). The questionnaire consists of 17 items and includes questions like "I am bursting with energy every day in my work"; "The time flies when I am at work" and "My job inspires me". The alpha coefficients for the three subscales varied between 0,68 and 0,91. The alpha coefficient could be improved ( $\alpha$  varies between 0,78 and 0,89 for the three sub-scales) by eliminating a few items without substantially decreasing the internal consistency. Storm (2002) obtained the following alpha coefficients for the UWES in a sample of 2396



members of the South African Police Service: Vigour: 0,78; Dedication: 0,89; Absorption: 0,78.

The Organisational Commitment Questionnaire (Meyer et al., 1993) was used to measure the organisational commitment of the respondents. The Organisational Commitment Questionnaire consists of 18 items rated on a five-point Likert type scale (1=strongly disagree, 5=strongly agree). Choices at the end (5) of the scale indicate total agreement with the item where as choices at the beginning of the scale (1) indicate total disagreement with the statement made in the item, hence indicating the level or degree of organisational commitment. McDonald and Makin (2000) in their study of the organisational commitment of temporary staff in an UK organisation, found the reliability scale to be 0,84. Allen and Meyer (1990) stated that inter-correlations between different samples were often above 0,90, which indicates that the combined factor is congruent. Cronbach alpha coefficients were consistently above 0,80 for every one of these sub-scales (Suliman & Iles, 2000a).

#### **1.2.4 Statistical analysis**

The statistical analysis was carried out with the help of the SAS-program (SAS Institute, 2000) and the Amos-program (Byrne, 2001). The SAS-program was used to carry out statistical analysis regarding reliability, validity, construct equivalence and predictive bias of the measuring instruments, descriptive statistics, analysis of variance, correlation coefficients and canonical analysis. The Amos-program was used to carry out structural equation modelling.

The statistical analysis proceeded as follows:

Structural equation modelling was used to determine the factorial validity of the measuring instruments. Structural equation modelling is a statistical methodology that takes a confirmatory (i.e. hypothesis-testing) approach to the analysis of a structural theory bearing on some phenomenon (Byrne, 2001). The term "structural equation modelling" (SEM) conveys two important aspects of the procedure, namely that the causal processes under study are

represented by a series of structural (i.e. regression) equations, and that these structural relations can be modelled pictorially to enable a clear conceptualisation of the theory under study. Several aspects of SEM set it apart from the older generation of multivariate procedures (Byrne, 2001). First, it takes a confirmatory rather than an exploratory approach to data analysis. Furthermore, by demanding that the pattern of intervariable relations be specified a priori, SEM lends itself well to the analysis of data for inferential purposes. Second, although traditional multivariate procedures are incapable of either assessing or correcting for measurement error, SEM provides explicit estimates of these error variance parameters. Third, SEM procedures can incorporate both unobserved (latent) and observed variables.

The Goodness-of-Fit Index (GFI) indicates the relative amount of the variances/co-variances in the sample predicted by the estimates of the population. It usually varies between 0 and 1 and a result of 0.90 or above indicates a good model fit. In addition, the Adjusted Goodness-of-Fit Index (AGFI) is given. The AGFI is a measure of the relative amount of variance accounted for by the model corrected for the degrees of freedom in the model relative to the number of variables. The GFI and AGFI can be classified as absolute indexes of fit because they basically compare the hypothesised model with no model at all (Hu & Bentler, 1995). The Parsimony Goodness-of-Fit Index (PGFI) addresses the issue of parsimony in SEM (Mulaik et al., 1989). The PGFI takes into account the complexity (i.e. number of estimated parameters) of the hypothesised model in the assessment of overall model fit and provides a more realistic evaluation of the hypothesised model. Mulaik et al. (1989) suggest that indices in the 0.90 are accompanied by PGFIs in the 0.50s are not unexpected. However, values higher than 0.8 are considered to be more appropriate (Byrne, 2001).

The Normed Fit Index (NFI) is used to assess global model fit. The NFI represents the point at which the model being evaluated falls on a scale running from a null model to perfect fit. This index is normed to fall on a 0 to 1 continuum. Marsh, Balla and Hau (1996) suggest that this index is relatively insensitive to sample sizes. The Comparative Fit Index (CFI) represents the

class of incremental fit indices in that it is derived from the comparison of a restricted model (i.e. one in which structure is imposed on the data) with that of an independence (or null) model (i.e. one in which all correlations among variables are zero) in the determination of goodness-of-fit. The Tucker-Lewis Index (TLI) (Tucker & Lewis, 1973), is a relative measure of covariation explained by the model that is specifically developed to assess factor models. For these fit indices (NFI, CFI and TLI), it is more or less generally accepted that a value of less than 0.90 indicates that the fit of the model can be improved (Hoyle, 1995), although a revised cut-off value close to 0.95 has recently been advised (HU & Bentler, 1999).

Browne and Cudeck (1993) suggest using the Root Mean Square Error of Approximation (RMSEA) and the 90% confidence interval of the RMSEA. The RMSEA estimates the overall amount of error it is a function of the fitting value relative to the degrees of freedom. The RMSEA point estimate should be 0.05 or less and the upper limit of the confidence interval should not exceed 0.08. Hu and Bentler (1999) suggested a value of 0.06 to be indicative of good fit between the hypothesised model and the observed data. MacCallum, Browne and Sugawara, (1996) recently elaborated on these cut-off points and noted that RMSEA values ranging from 0.08 to 0.10 indicate mediocre fit, and those greater than 0.10 indicate poor fit.

Principal factor extraction with varimax rotation was performed through SAS FACTOR on the measuring instruments that have no confirmed factor structure. Principal component extraction was used prior to principal factor extraction to estimate the number of factors, presence of outliers and factorability of the correlation matrices. The eigenvalues and scree plot were studied to determine the number of factors underlying a specific measuring instrument. The oblique method with a promax rotation was requested prior to the varimax rotation, to determine whether obtained factors are significantly related ( $r > 0.35$ ).

A SAS procedure to conduct targeted rotations (Procrustes rotations) (as described by McCrae, Zonderman, Costa, Bond & Paunonen, 1996) was used

to determine the construct equivalence of the measuring instruments for different language groups. According to Van de Vijver and Leung (1997), it is not acceptable to conduct factor analysis for different cultural groups to address the similarity of factor-analytic solutions because the spatial orientation of factors in factor analysis is arbitrary. Rather, prior to an evaluation of the agreement of factors in different cultural groups, the matrices of loadings should be rotated with regard to each other. The factor loadings of separate groups are rotated to a joint common matrix of factor loadings. The procedure consists of the following steps: Firstly the target structure is specified. Secondly the hypothesised number of factors is extracted and varimax rotation is used to obtain exploratory factor loadings in the new sample. Thirdly a targeted rotation is performed to examine the extent to which differences between the target and varimax matrix are due solely to the rotation of the axes. Fourthly congruences are calculated using Tucker's coefficient of agreement (Tucker's  $\phi$ ). This coefficient is insensitive to multiplications of the factor loadings, but is sensitive to a constant added to all loadings of a factor. This index does not have a known sampling distribution hence it is impossible to establish confidence intervals. Values higher than 0.95 are seen as evidence for factorial similarity, whereas values lower than 0.85 are taken to point to non-negligible incongruities (Van de Vijer & Leung, 1997).

An extension of Clearly and Hilton's (1968) use of analysis of variance was applied to identify item bias in measuring instruments (Van de Vijver & Leung, 1997). Bias was examined for each item separately. The item score was regarded as the dependent variable, while language groups and score levels were regarded as the independent variables. Score groups were composed on the basis of the total score on the MBI-GS. A total of ten score levels was obtained by making use of percentiles identified through SAS Univariate. This made it possible to use score groups with at least 50 persons each. Two effects were tested through analysis of variance, namely the main effect of culture (language) and the interaction of score level and culture. When both

the main effect of culture and the interaction of score level and culture are non-significant, the item was taken to be unbiased.

Cronbach alpha coefficients and inter-item correlation coefficients were used to assess the reliability and validity of the measuring instruments.

Descriptive statistics (e.g. means, standard deviations, range, skewness and kurtosis) and inferential statistics were used to analyse the data. Pearson and Spearman correlation coefficients were computed to determine the relationships between variables. Canonical analysis was conducted to determine the relationships between sets of variables. A cut-off point of  $p = 0.05$  was set for the statistical significance of the results. Effect sizes were used to decide on the practical significance of the findings. A cut-off point of 0.30 was set for the practical significance of correlation coefficients.

## **1.4 Division of Chapters**

The chapters are presented as follows:

Chapter 1: Introduction

Chapter 2: Research Article 1 (Burnout and work engagement)

Chapter 3: Research Article 2 (Occupational stress, job satisfaction and work engagement)

Chapter 4: Conclusions, limitations and recommendations.

## **1.5 Chapter Summary**

In this chapter the problem statement was given. Thereafter the research objectives, that consists out of a general objective and specific objectives were provided. The research method was explained and finally the division on chapters was provided.

# **BURNOUT AND WORK ENGAGEMENT OF EDUCATORS ON SENIOR LEVEL IN THE SEDIBENG WEST DISTRICT - VANDERBIJLPARK**

Y. VAN ZYL

J.H. BUITENDACH

*Research Unit for People, Policy & Performance,  
Potchefstroom University for CHE, Vaal Triangle Campus*

## **ABSTRACT**

The objective of this study was to determine the relationship between burnout and work engagement of educators on senior level in the Sedibeng West District - Vanderbijlpark. A cross sectional survey design was used. Stratified random samples of educators on senior level ( $N=140$ ) were taken in the Sedibeng West District - Vanderbijlpark. The Maslach Burnout Inventory-General Survey, the Utrecht Work Engagement Scale and a biographical questionnaire were used as measuring instruments. Structural equation modelling confirmed a 3-factor model of burnout, consisting of emotional exhaustion, cynicism and personal accomplishment, and a 3-factor model of work engagement, consisting of vigour, dedication and absorption. The scales indicated acceptable internal consistencies. A canonical analysis showed that burnout and work engagement were related.

## OPSOMMING

Die doelstelling van hierdie navorsing was om die verhouding tussen uitbranding en werksbegeesterings vas te stel vir onderwysers op seniorvlak in die Sedibeng Wes Distrik - Vanderbijlpark. 'n Dwarssnee opname ontwerp is gebruik. 'n Gestratifiseerde ewekansige steekproef van onderriggewers ( $N=140$ ) is geneem in die Sedibeng Wes Distrik - Vanderbijlpark. Die Maslach Uitbrandingsvraelys-Algemene Opname, die Utrecht-werksbegeesteringskaal en 'n biografiese vraelys is as meetinstrumente gebruik. Strukturele vergelykingsmodellering het 'n 3-faktormodel van uitbranding bestaande uit emosionele uitputting, sinisme en persoonlike berekening bevestig, en 'n 3-faktormodel, bestaande uit energie, toewyding en absorpsie, bevestig. Die meetinstrumente het aanvaarbare interne konsekwentheid getoon. 'n Kanoniese korrelasie het 'n verband tussen uitbranding en werksbegeestering getoon.

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# INTRODUCTION

Many educators enter the field eager to teach, experiment, and create, only to experience what so many other professional educators have encountered – the fire to teach dwindles to a mere spark (Flemming, Barton & Stanne, 1998). According to these authors, burnout is prevalent in the teaching profession, whether this is due to excessive paperwork, student discipline problems, insensitive parents or administrators, or a lack of promotional opportunities.

Since the late 1970's, interest in the concept of professional burnout has grown and knowledge of burnout has increased. In recent years, there has been considerable interest in the problem of burnout, particularly in human service professions (Koustelios, 2001).

Traditionally, the major cause of burnout has been the emotionally demanding interpersonal relationships of professional caregivers with their recipients. By definition, these relationships are asymmetric. Professionals in the human services provide care, support, attention, comfort, and assistance to their clients, patients, and pupils (Schaufeli, Maslach & Marek, 1993). The unbalanced interpersonal relationship is nicely illustrated semantically by the terms "caregiver" and "recipient". Eventually, the strains of this asymmetric relationship may result in the depletion of the caregiver's emotional resources, the core symptom of burnout (Schaufeli, Maslach & Marek, 1993).

Maslach, Schaufeli and Leiter (2001) define burnout as a prolonged response to chronic, emotional and interpersonal stressors and is characterised by exhaustion, cynicism and inefficacy. The exhaustion component predicts stress-related health consequences and refers to feelings of being overextended and drained from one's emotional and physical resources. Emotional exhaustion is due to a combination of personal stressors and job and organisational stressors. People who expect a lot from themselves and the organisations in which they work tend to create more internal stress, which in turn leads to emotional exhaustion. Similarly, emotional exhaustion is fuelled by having too much work to do, by role conflict, and by the type of



interpersonal interactions encountered at work. Frequent, intense face-to-face interactions that are emotionally charged are associated with higher levels of emotional exhaustion.

Maslach and Leiter (1997) rephrased burnout as an erosion of engagement with the job. What started out as important, meaningful, and challenging work becomes unpleasant, unfulfilling, and meaningless. Energy turns into exhaustion, involvement turns into cynicism, and efficacy turns into ineffectiveness. Accordingly, engagement is characterised by energy, involvement, and efficacy – the direct opposites of the three burnout dimensions.

It is far better to invest in avoiding burnout than to pick up the costs in its wake (Maslach & Leiter, 1997). But reducing the possibility of burnout is only part of a preventive approach. Even more important is increasing the chances that people remain engaged with their work (Maslach & Leiter, 1997). The ultimate goal in every profession or organisation is to build something positive, not simply to eliminate a negative.

The objective of this study was to determine the burnout and work engagement of educators on senior level in the Sedibeng West District - Vanderbijlpark and to determine whether burnout and work engagement are related.

### **Burnout and work engagement**

A more extreme result of long-term effects of teacher stress is total emotional exhaustion (Travers & Cooper, 1996). Unsuccessful attempts to cope with a variety of negative stress conditions can result in a multidimensional chronic stress reaction: burnout (Basson & Rothman, 2002). Burnout has long been recognised as an important stress-related problem for people who work in interpersonally oriented professions. In these occupations, the relationship between providers and recipients is central to the job, and the nature of work can be highly emotional (Vandenberghe & Huberman, 1999). Providing affective, instructional, and moral services to pupils of necessity makes

emotional demands on the service providers. Once emotional exhaustion sets in, people feel they are no longer able to give themselves to others. One way in which people try to get out of their emotional burden is by cutting back on their involvement with others. Individuals want to reduce their contact with people to the bare minimum required to get the job done (Vandenberghe & Huberman, 1999).

According to Maslach, Schaufeli and Leiter (2001) exhaustion is not something that is simply experienced – rather, it prompts actions to distance oneself emotionally and cognitively from one's work, presumably as a way to cope with the work overload. Within the human services, the emotional demands of the work can exhaust a service provider's capacity to be involved with, and respond to the needs of service recipients (Maslach, Schaufeli & Leiter, 2001). According to Pines (2002) teacher burnout was found to be related to a number of physical and psychological symptoms. The most common symptoms of teacher burnout are physical and emotional exhaustion and anxiety.

Burnout can be defined as a persistent, negative, work-related state of mind in "normal" individuals, primarily characterised by exhaustion and accompanied by distress, a sense of reduced effectiveness, decreased motivation, and the development of dysfunctional attitudes and behaviours at work (Schaufeli & Enzmann, 1998).

According to Friedman (2000) burnout is conceptualised as a three-dimensional phenomenon consisting of exhaustion, depersonalisation and unaccomplishment. Exhaustion has been identified as the most salient reaction to the stress of job demands and the sense of unaccomplishment at work. When people feel cynical, they assume a cold, distant, depersonalised attitude toward their work and the people they encounter through work. Individuals tend to minimise their involvement at work, and even relinquish their ideals. Feelings of ineffectiveness or unaccomplishment are accompanied by a growing sense of inadequacy. The world seems to

conspire against efforts to make progress. People lose confidence in their ability to make a difference professionally (Friedman, 2000).

According to Maslach and Leiter (1997) six roads lead to greater harmony between people and their jobs. The six areas of organisational life in which mismatches occur are the immediate environment people encounter at work, and within each of these areas are the starting points for the journey from burnout to engagement. Each of these six areas contains the critical factors that either cause the problems of mismatch and burnout or offer the solutions of good fit and engagement. These factors either contribute to exhaustion or sustain the energy that people bring to their work. They either cause cynicism and alienation or promote increased involvement and commitment to the job. They either produce a lack of accomplishment and inadequacy or lead to greater effectiveness and achievement (Maslach & Leiter, 1997).

Any of the six mismatches provides a good starting point for moving toward the goal of a better life at work. From a fit and engagement point of view rather than mismatch and burnout they are translated into the following guideposts (Maslach & Leiter, 1997):

### **Sustainable workload**

Workload is a key dimension of organisational life (Maslach & Leiter, 1997). From the organisation's perspective, workload means productivity. From the individual's perspective, workload means time and energy. Finding a compromise between the two perspectives is a fundamental challenge in maintaining a balanced relationship with work. Major organisational transitions associated with downsizing and restructuring target workload first and foremost. In their scramble for increased productivity, organisations push people beyond what they can sustain. Workload includes how much you do and what you do. The current crisis in the workplace affects the workload in three ways: it is more intense, it demands more time, and it is more complex (Maslach & Leiter, 1997).

### **Feelings of choice and control**

The capacity to set priorities for day-to-day work, select approaches to doing work, and make decisions about the use of resources is central to being a professional (Maslach & Leiter, 1997). Policies that interfere with this capacity reduce individual autonomy and involvement with work. When people do not have control over important dimensions of their job, it prevents them from addressing problems that they identify. The issue is not whether they are able or willing to take action but rather whether the organisation will tolerate creative problem-solving outside of its centralised control structures. Without the capacity to make relevant decisions, people can waste time doing things that do not get the job done. Without control, they cannot balance their interests with those of the organisation. They lose interest if they do not feel that they are making things happen (Maslach & Leiter, 1997).

### **Recognition and reward**

The current crisis in the work environment reduces the capacity of organisations to reward people in meaningful ways. People hope that their jobs will bring them the material rewards of money, prestige, and security, but lately jobs have been bringing less of all three even as people are working more. An even greater contributor to the experience of burnout is the loss of the intrinsic reward of doing enjoyable work – and building expertise – with respected colleagues. The combined loss of extrinsic rewards diminishes the potential for work to be engaging (Maslach & Leiter, 1997).

### **A sense of community**

According to Maslach and Leiter (1997) the fourth impact of the current crisis is the breakdown of community at work. Community is undermined through the loss of job security and an excessive focus on short-term profit that excludes consideration of people. On one level, this atmosphere fragments the personal relationships that are the fundamental components of community in an organisation. On a second level, it undermines the teamwork that is seen

to be increasingly central to the manufacturing, information processing, and service sectors of the economy. The loss of community is evident in greater conflict among people, less mutual support and respect, and a growing sense of isolation. A sense of belonging disappears when people work separately instead of together (Maslach & Leiter, 1997).

### **Fairness, respect and justice**

A workplace is perceived to be fair when three key elements are present: trust, openness, and respect (Maslach & Leiter, 1997). When an organisation achieves community, people trust one another to fulfill their roles on shared projects, to communicate openly about their intentions, and to show mutual respect. When an organisation acts fairly, it values every person who contributes to its success; it indicates that every individual is important. All three elements of fairness are essential to maintaining a person's engagement with work. In contrast, their absence contributes directly to burnout (Maslach & Leiter, 1997).

### **Meaningful and valued work**

Values influence everything about a person's relationship with work. The current crisis in the job environment is in many ways a major value conflict (Maslach & Lieter, 1997). A short-term survival-and-profit value system is going against values that the most dedicated employees hold about their work. What people find especially aggravating is that often organisations emphasise a dedication to excellent service or production while they take actions that damage the quality of work. In fact, management is not attempting to undermine quality; it is just attending to other things. Excellent quality requires total attention (Maslach & Leiter, 1997).

Along each of the six paths towards these goals, there are two challenges: (1) creating harmony between people and their jobs in a way that leads to (2) changing the job environment as well as the people. Targeting the job is critical, given all the evidence that burnout and engagement are primarily a

function of the job situation. Engagement is identified as a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication and absorption (Maslach & Leiter, 1997). Vigour reflects the willingness and ability of the individual to invest effort in his/her job. This implies the presence of high levels of energy and mental resilience. Dedication refers to a sense of significance, enthusiasm and absorption whereas absorption reflects the full concentration and happiness of being engrossed in one's work. Time passes quickly when the individual is carried away by the job (Maslach, Schaufeli & Leiter).

To summarise, burnout and engagement are conceptually related to each other, resulting in the identification of two work-related dimensions of well-being, namely (1) *activation*, ranging from exhaustion to vigour, and (2) *identification*, ranging from cynicism to dedication (Schaufeli & Bakker, 2001). Thus, engagement can be distinguished but not divorced from burnout in terms of its structure and operationalisation. Engagement is theoretically viewed as the opposite end of the continuum from burnout.

The following research questions are based on the description of the problem:

- How is burnout and work engagement conceptualised in the literature?
- How is the relationship between burnout and work engagement of educators on senior level in the Sedibeng West District – Vanderbijlpark conceptualised in the literature?
- What is the current level of burnout of educators on senior level in the Sedibeng West District – Vanderbijlpark?
- What is the current level of work engagement of educators on senior level in the Sedibeng West District – Vanderbijlpark?
- What is the relationship between burnout and work engagement of educators on senior level in the Sedibeng West District – Vanderbijlpark?

- What recommendations can be made for the prevention and/or management of burnout and work engagement of educators on senior level in the Sedibeng West District – Vanderbijlpark?

## **METHOD**

### **Research design**

A cross-sectional survey design was used to gather information about the sample at that time. Cross-sectional designs are appropriate where groups of subjects at various stages of development are studied simultaneously, whereas the survey technique of data collection gathers information from the target population by means of questionnaires (Burns & Grove, 1993). This design can also be used to evaluate interrelationships among variables within a population (Shaughnessy & Zechmeister, 1997). According to Shaughnessy and Zechmeister (1997), this design is also ideal to describe and predict functions associated with correlative research.

### **Study population**

The study population is be defined as a stratified random sample of educators on senior level ( $N=140$ ) in the Sedibeng West District – Vanderbijlpark. A response rate of 82,14% was achieved. Descriptive information of the sample is given in Table 1.

**Table 1***Characteristics of the participants*

<b>Item</b>	<b>Category</b>	<b>Percentage</b>
<b>Age</b>	Less than 25	3,92%
	25-34	25,49%
	35-44	34,31%
	45-54	28,43%
	55+	7,84%
<b>Gender</b>	Male	37,72%
	Female	62,28%
<b>Contract</b>	Permanent	74,34%
	Temporary	23,01%
	Fixed-term	2,65%
<b>Productive</b>	100%	15,60%
	90-99%	21,10%
	80-89%	36,70%
	70-79%	15,60%
	Less than 70% productive	11,01%

In summary, the group can be described as follows: The mean age of the respondents was 40,20 years with 34,31% falling within the 35 to 44 age bracket, 25,49% falling within the 25-34 age bracket and 28,43% falling within the 45-54 age bracket. The majority of this group were female (62,28%). A large percentage of the participants indicated that they were employed on a permanent basis (74,34%), 23,01% are employed on a temporary basis and 2,65% on fixed term. A large percentage of the participants indicated that they felt they were 80 – 89% productive.



## **Measuring battery**

In this study two measuring instruments, namely the Maslach Burnout Inventory-General Survey (MBI-GS) (Maslach et al., 1996) and the Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2002) were used. Also, biographical information was gathered.

The Maslach Burnout Inventory-General Survey (MBI-GS) (Maslach et al., 1996) was used to measure burnout. The MBI-GS has three subscales: Exhaustion (Ex) consisting of five items, e.g.: "I feel used up at the end of the workday"; Cynicism (Cy), also having five items, e.g.: "I have become less enthusiastic about my work"; and Professional Efficacy (PE) with six item,; e.g. "In my opinion, I am good at my job". Together the sub-scales of the MBI-GS provide a three-dimensional perspective on burnout. Internal consistencies (Cronbach coefficient alphas) varied from 0,87 to 0,89 for Exhaustion, 0,73 to 0,84 for Cynicism and 0,76 to 0,84 for Professional Efficacy. Test-retest reliabilities after one year were 0,65 (Exhaustion) 0,60 (Cynicism) and 0,67 (Professional Efficacy). All items are scored on a 7-point frequency-rating scale ranging from 0 ("never"), to 6 ("daily"). High scores on Exhaustion and Cynicism, and low scores on Professional Efficacy are indicative of burnout. Storm (2002) confirmed the 3-factor structure of the MBI-GS in a sample of 2396 members of the South African Police Service (SAPS), but recommended that Item 13 should be dropped from the questionnaire. She confirmed the structural equivalence of the MBI-GS for different race groups in the SAPS. The following Cronbach alpha coefficients were obtained for the MBI-GS: Exhaustion: 0,88; Cynicism: 0,79, Professional Efficacy: 0,78 (Storm, 2002).

The Utrecht Work Engagement Scale (UWES) (Schaufeli et al., 2002) was used to measure the levels of engagement of the participants. The UWES includes three dimensions namely vigour, dedication and absorption, which is conceptually seen as the opposite of burnout and is scored on a seven-point frequency-rating scale, varying from 0 ("never") to 6 ("every day"). The questionnaire consists of 17 questions and includes questions like "I am bursting with energy every day in my work", "The time flies when I am at

work" and "My job inspires me". The alpha coefficients for the three subscales varied between 0,68 and 0,91. The alpha coefficient could be improved ( $\alpha$  varies between 0,78 and 0,89 for the three sub-scales) by eliminating a few items without substantially decreasing the internal consistency. Storm (2002) obtained the following alpha coefficients for the UWES in a sample of 2396 members of the South African Police Service: Vigour: 0,78; Dedication: 0,89m; Absorption: 0,78

### **Statistical analysis**

The statistical analysis was carried out with the help of the SAS-program (SAS Institute, 2000) and the Amos-program (Byrne, 2001). The SAS-program was used to carry out statistical analysis regarding reliability, validity, construct equivalence and predictive bias of the measuring instruments, descriptive statistics, analysis of variance, correlation coefficients and canonical analysis. The Amos program was used to carry out structural equation modelling.

The statistical analysis proceeded as follows:

Structural equation modelling was used to determine the factorial validity of the measuring instruments. Structural equation modelling is a statistical methodology that takes a confirmatory (i.e. hypothesis-testing) approach to the analysis of a structural theory bearing on some phenomenon (Byrne, 2001). The term "structural equation modelling" (SEM) conveys two important aspects of the procedure, namely that the causal processes under study are represented by a series of structural (i.e. regression) equations, and that these structural relations can be modelled pictorially to enable a clear conceptualisation of the theory under study. Several aspects of SEM set it apart from the older generation of multivariate procedures (Byrne, 2001). First, it takes a confirmatory rather than an exploratory approach to data analysis. Furthermore, by demanding that the pattern of inter-variable relations be specified a priori, SEM lends itself well to the analysis of data for inferential purposes. Second, although traditional multivariate procedures are incapable of either assessing or correcting for measurement error, SEM

provides explicit estimates of these error variance parameters. Third, SEM procedures can incorporate both unobserved (latent) and observed variables.

The Goodness-of-Fit Index (GFI) indicates the relative amount of the variances/co-variances in the sample predicted by the estimates of the population. It usually varies between 0 and 1 and a result of 0.90 or above indicates a good model fit. In addition, the Adjusted Goodness-of-Fit Index (AGFI) is given. The AGFI is a measure of the relative amount of variance accounted for by the model corrected for the degrees of freedom in the model relative to the number of variables. The GFI and AGFI can be classified as absolute indexes of fit because they basically compare the hypothesised model with no model at all (Hu & Bentler, 1995). The Parsimony Goodness-of-Fit Index (PGFI) addresses the issue of parsimony in SEM (Mulaik et al., 1989). The PGFI takes into account the complexity (i.e. number of estimated parameters) of the hypothesised model in the assessment of overall model fit and provides a more realistic evaluation of the hypothesised model. Mulaik et al. (1989) suggest that indices in the 0.90 are accompanied by PGFIs in the 0.50s are not unexpected. However, values higher than 0.8. are considered to be more appropriate (Byrne, 2001).

The Normed Fit Index (NFI) is used to assess global model fit. The NFI represents the point at which the model being evaluated falls on a scale running from a null model to perfect fit. This index is normed to fall on a 0 to 1 continuum. Marsh, Balla and Hau (1996) suggest that this index is relatively insensitive to sample sizes. The Comparative Fit Index (CFI) represents the class of incremental fit indices in that it is derived from the comparison of a restricted model (i.e. one in which structure is imposed on the data) with that of an independence (or null) model (i.e. one in which all correlations among variables are zero) in the determination of goodness-of-fit. The Tucker-Lewis Index (TLI) (Tucker & Lewis, 1973), is a relative measure of covariation explained by the model that is specifically developed to assess factor models. For these fit indices (NFI, CFI and TLI), it is more or less generally accepted that a value of less than 0.90 indicates that the fit of the model can be

improved (Hoyle, 1995), although a revised cut-off value close to 0.95 has recently been advised (HU & Bentler, 1999).

Browne and Cudeck (1993) suggest using the Root Mean Square Error of Approximation (RMSEA) and the 90% confidence interval of the RMSEA. The RMSEA estimates the overall amount of error; it is a function of the fitting value relative to the degrees of freedom. The RMSEA point estimate should be 0.05 or less and the upper limit of the confidence interval should not exceed 0.08. Hu and Bentler (1999) suggest a value of 0.06 to be indicative of good fit between the hypothesised model and the observed data. MacCallum, Browne and Sugawara, (1996) recently elaborated on these cut-off points and noted that RMSEA values ranging from 0.08 to 0.10 indicate mediocre fit, and those greater than 0.10 indicate poor fit.

Principal factor extraction with varimax rotation was performed through SAS FACTOR on the measuring instruments that have no confirmed factor structure. Principal component extraction was used prior to principal factor extraction to estimate the number of factors, presence of outliers and factorability of the correlation matrices. The eigenvalues and scree plot were studied to determine the number of factors underlying a specific measuring instrument. The oblique method with a promax rotation was requested prior to the varimax rotation, to determine whether obtained factors are significantly related ( $r > 0.35$ ).

A SAS procedure to conduct targeted rotations (Procusts rotations) (as described by McCrae, Zonderman, Costa, Bond & Paunonen, 1996) was used to determine the construct equivalence of the measuring instruments for different language groups. According to Van de Vijver and Leung (1997), it is not acceptable to conduct factor analysis for different cultural groups to address the similarity of factor-analytic solutions because the spatial orientation of factors in factor analysis is arbitrary. Rather, prior to an evaluation of the agreement of factors in different cultural groups, the matrices of loadings should be rotated with regard to each other. The factor loadings of separate groups are rotated to a joint common matrix of factor loadings. The

procedure consists of the following steps: Firstly the target structure is specified. Secondly the hypothesised number of factors is extracted and varimax rotation is used to obtain exploratory factor loadings in the new sample. Thirdly a targeted rotation is performed to examine the extent to which differences between the target and varimax matrix are due solely to the rotation of the axes. Fourthly, congruencies are calculated using Tucker's coefficient of agreement (Tucker's  $\phi$ ). This coefficient is insensitive to multiplications of the factor loadings, but is sensitive to a constant added to all loadings of a factor. This index does not have a known sampling distribution hence it is impossible to establish confidence intervals. Values higher than 0.95 are seen as evidence for factorial similarity, whereas values lower as 0.85 are taken to point to non-negligible incongruities (Van de Vijver & Leung, 1997).

An extension of Clearly and Hilton's (1968) use of analysis of variance was applied to identify item bias in measuring instruments (Van de Vijver & Leung, 1997). Bias was examined for each item separately. The item score was regarded as the dependent variable, while language groups and score levels were regarded as the independent variables. Score groups were composed on the basis of the total score on the MBI-GS. A total of ten score levels was obtained by making use of percentiles identified through SAS Univariate. This made it possible to use score groups with at least 50 persons each. Two effects were tested through analysis of variance, namely the main effect of culture (language) and the interaction of score level and culture. When both the main effect of culture and the interaction of score level and culture are non-significant, the item was taken to be unbiased.

Cronbach alpha coefficients and inter-item correlation coefficients were used to assess the reliability and validity of the measuring instruments.

Descriptive statistics (e.g. means, standard deviations, range, skewness and kurtosis) and inferential statistics were used to analyse the data. Pearson and Spearman correlation coefficients were computed to determine the relationships between variables. Canonical analysis was conducted to

determine the relationships between sets of variables. A cut-off point of  $p = 0.05$  was set for the statistical significance of the results. Effect sizes were used to decide on the practical significance of the findings. A cut-off point of 0.30 was set for the practical significance of correlation coefficients (Cohen, 1988; Steyn, 2002).

## RESULTS

Structural equation modeling (SEM) methods were used to test factorial models for the MBI-GS and the UWES. Analysis of the data proceeded as follows: Firstly studying the overall  $\chi^2$  goodness-of-fit statistic in conjunction with its degrees of freedom and probability value, using comparative fit indices, such as the Goodness-of-Fit Index (GFI), the Adjusted Goodness-of-Fit Index (AGFI), the Parsimony Goodness-of-Fit Index (PGFI), the Normed-Fit Index (NFI), the Comparative-Fit Index (CFI), the Tucker-Lewis Index (TLI) and the Root Mean Square Error of Approximation (RMSEA).

### *Hypothesised model of burnout*

The full 3-factor model of the MBI-GS was tested. Table 2 presents fit statistics for the test of the model.

**Table 2**

*Goodness-of-Fit Statistics for the MBI-GS Model*

Model	$\chi^2$	$\chi^2/df$	GFI	AGFI	PGFI	NFI	TLI	CFI	RMSEA
Model	141,54	1,40	0,86	0,82	0,64	0,84	0,94	0,95	0,06

The TLI and CFI both approach 0,90. The GFI = 0,86; AGFI = 0,82; PGFI = 0,64 and NFI = 0,84 however, are below the acceptable levels of fit. Even though the RMSEA are above the 0,05 level, it is still below 0,08. Because this model represented acceptable comparative evidence-of-fit between the

empirical data and a theoretical model in line with the theoretical premises of the MBI-GS, no further modification of the model was deemed necessary.

### ***Hypothesised model of work engagement***

The theoretical model, as proposed by Schaufeli, Salanova, González-Romá and Bakker (2002), was tested. Table 3 presents fit statistics for the test of the model.

**Table 3**

*Goodness-of-Fit Statistics for the UWES Model*

<b>Model</b>	<b>X<sup>2</sup></b>	<b>X<sup>2</sup>/df</b>	<b>GFI</b>	<b>AGFI</b>	<b>PGFI</b>	<b>NFI</b>	<b>TLI</b>	<b>CFI</b>	<b>RMSEA</b>
<b>Model</b>	182,40	1,57	0,83	0,78	0,63	0,83	0,98	0,93	0,07

The goodness-of-fit statistics indicate acceptable levels of model fit for the TLI and CFI. The RMSEA value is lower than 0,08 and is indicative of acceptable fit. The GFI = 0,83, AGFI = 0,78; PGFI = 0,63 and NFI = 0,83 are below the acceptable levels of fit. Since model fit was determined to be acceptable and the results agreed with the theoretical assumptions underlying the UWES (Schaufeli, Salanova, González-Romá & Bakker, 2002), no further modifications of the model were deemed necessary. According to the fit statistics in Table 3, an overall good fit with the data is obtained by the 3-factor model.

Descriptive statistics, Cronbach alpha coefficients and the inter-item correlation coefficients of the MBI-GS and UWES for educators in the Sedibeng West District – Vanderbijlpark are given in Table 4.

**Table 4**

*Descriptive statistics, Cronbach alpha coefficients and inter-item correlation coefficients of the measuring instruments for educators in the Sedibeng West District – Vanderbijlpark.*

Test and items	N	Mean	SD	Skewness	Kurtosis	Inter-item r	$\alpha$
<b>MBI-GS</b>							
Exhaustion	113	17,04	7,15	-0,28	-0,59	0,53	0,85
Cynicism	113	14,52	6,32	0,01	-0,61	0,34	0,70
Professional Efficacy	113	28,40	5,76	-1,08	1,55	0,52	0,86
<b>UWES</b>							
Vigour	113	25,42	6,34	-0,67	0,25	0,42	0,81
Dedication	113	21,96	6,44	-0,74	0,02	0,65	0,90
Absorption	113	26,06	5,51	-0,48	0,11	0,24	0,63

The information in Table 4 indicates that the three factors of the MBI-GS are normally distributed. The internal consistency of the three scales of the MBI-GS seems to demonstrate acceptable coefficient alphas above the 0,70 guideline (Nunnally & Bernstein, 1994). Acceptable levels of inter-item correlations have been obtained for cynicism with the guideline of  $0,15 < r < 0,50$  (Clark & Watson, 1995).

The scales of the UWES are normally distributed with all three scales somewhat negatively skewed and positively peaked. With regards to the internal consistency of the scales, both vigour and dedication demonstrate acceptable Cronbach alpha coefficients; the absorption scale is below the guideline of 0,70 (Nunnally & Bernstein, 1994). Acceptable levels of inter-item



correlations were found for vigour and absorption in line with the guideline of  $0,15 < r < 0,50$  (Clark & Watson, 1995).

The correlation coefficients between the MBI-GS and UWES of educators in the Sedibeng West District – Vanderbijlpark are reported in Table 5.

**Table 5**

*Correlation coefficients between the MBI-GS and UWES*

Item	Exhaustion	Cynicism	Professional Efficacy	Vigour	Dedication	Absorption
<b>Exhaustion</b>	1,00					
<b>Cynicism</b>	0,60 <sup>+++</sup>	1,00				
<b>Professional efficacy</b>	-0,46 <sup>++</sup>	-0,52 <sup>+++</sup>	1,00			
<b>Vigour</b>	-0,52 <sup>+++</sup>	-0,50 <sup>+++</sup>	0,72 <sup>+++</sup>	1,00		
<b>Dedication</b>	-0,51 <sup>+++</sup>	-0,60 <sup>+++</sup>	0,73 <sup>+++</sup>	0,82 <sup>+++</sup>	1,00	
<b>Absorption</b>	-0,26 <sup>*</sup>	-0,31 <sup>++</sup>	0,51 <sup>+++</sup>	0,60 <sup>+++</sup>	0,59 <sup>+++</sup>	1,00

\* Statistically significant  $p \leq 0,01$

+ Correlation is practically significant  $r \geq 0,30$  (medium effect)

++Correlation is practically significant  $r \geq 0,50$  (large effect)

Although most of the correlations between the variables were statistically significant, some were of medium and large practical significance. Table 5 shows practically significant correlation coefficients of large effect between exhaustion and cynicism, professional efficacy and vigour, professional efficacy and dedication, professional efficacy and absorption, vigour and dedication, vigour and absorption, dedication and absorption.

The results of a canonical analysis of burnout and work engagement of educators in the Sedibeng West District – Vanderbijlpark are shown in Table 6.

**Table 6***Results of the canonical analysis: burnout and work engagement of educators*

	<b>First canonical variate</b>		<b>Second canonical variate</b>	
<b>Set 1 - Burnout</b>	<b>Correlation</b>	<b>Coefficient</b>	<b>Correlation</b>	<b>Coefficient</b>
Exhaustion	-0,67	-0,19	-0,20	-0,77
Cynicism	-0,73	-0,24	0,60	1,30
Professional efficacy	0,95	0,74	0,14	0,46
Percent of variance	0,63		0,14	Total = 0,77
Redundancy	0,40		0,01	Total = 0,41
<b>Set 2 – Work engagement</b>				
Vigour	0,94	0,43	0,35	-0,59
Dedication	0,97	0,62	-0,24	-0,24
Absorption	0,62	-0,00	0,12	1,27
Percent of variance	0,73		0,06	Total = 0,78
Redundancy	0,47		0,00	Total = 0,47
Canonical correlation	0,80		0,25	

The first canonical correlation was 0,80. The other canonical correlation was 0,25. In terms of statistical significance an  $F(9; 260,56) = 16,78$  ( $p < ,0001$ ) is determined for the first canonical correlation, while the second correlation is determined at  $F(4; 216) = 2,34$  ( $p = 0,0559$ ).

With regards to interpretation of the first canonical variate, variables above the cut-off point of  $r > 0,30$  include emotional exhaustion (-0,67), cynicism (-0,73) and professional efficacy (0,95) in the burnout set, while significant correlations in the engagement set include vigour (0,94), dedication (0,97) and absorption (0,62). The canonical correlation between the burnout and the engagement set indicates that low scores on emotional exhaustion and cynicism and high scores on professional efficacy are related to high scores on vigour, dedication and absorption. In terms of the burnout set, professional efficacy demonstrates the highest correlation.

## DISCUSSION

Exhaustion, cynicism and professional efficacy are distinct components of burnout as measured by the MBI-GS: vigour, dedication and absorption are distinct components of work engagement as measured with the UWES.

This study investigated burnout and work engagement of educators in the Sedibeng West District – Vanderbijlpark as well as the relationship between the constructs. In terms of burnout and engagement, the results shows that a relationship between burnout and engagement exists. Low levels of burnout were found to be related to high levels of engagement, confirming the findings of Schaufeli, Martinez, Pinto, Salanova and Bakker (2002). Furthermore, existing theoretical relationships regarding burnout and work engagement were confirmed in the study.

The results of the canonical analysis of the relation between burnout and engagement indicate that emotional exhaustion, cynicism and professional efficacy are related to vigour, dedication and absorption with professional efficacy as the highest correlation. Canonical analysis showed that educators who experienced low emotional exhaustion and cynicism as well as high professional efficacy, experienced high vigour, dedication and absorption.

Burnout and engagement are conceptually related to each other, resulting in the identification of two work-related dimensions of well-being, namely (1) *activation*, ranging from exhaustion to vigour, and (2) *identification*, ranging from cynicism to dedication (Schaufeli & Bakker, 2001). Thus, engagement can be distinguished but not divorced from burnout in terms of its structure and operationalisation. Engagement is theoretically viewed as the opposite end of the continuum from burnout.

The relationship between burnout and engagement is highlighted in this study. Large effects were found between professional efficacy and vigour, professional efficacy and dedication, and professional efficacy and absorption. Thus the professional efficacy subscale of burnout was found to be a

constituting element of engagement, which is in line with reports in the literature (Maslach & Leiter, 1997).

## **RECOMMENDATIONS**

### **Recommendations for the teaching profession**

Smaller class sizes, smaller caseloads, reduction in paperwork, support from colleagues, administrators and the community should be managed carefully by the school districts to prevent burnout in teachers. Burnout starts with a depletion of emotional exhaustion followed by depersonalisation, thus the development of cynical attitudes towards learners and colleagues, becoming more callous toward people, and feeling exhausted after working closely with recipients, a growing sense of inadequacy, in other words a feeling of ineffectiveness.

The demands of the workload must be manageable and not overwhelming to the educator; also a feeling of control is necessary for the educator. Recognition systems and the effectiveness of rewards must be in place. Respect and fairness among educators are evident, personal and school district values about teaching must provide the educator with opportunities to do work that they feel is important, thus experiencing prolonged fulfillment, dedication and enjoyment in their work.

### **Recommendations for future research**

For future research on burnout and work engagement a nationally representative sample of educators is needed.

More research should be conducted about interventions to prevent and/or manage burnout and work engagement.

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# **OCCUPATIONAL STRESS, JOB SATISFACTION AND ORGANISATIONAL COMMITMENT OF EDUCATORS ON SENIOR LEVEL IN THE SEDIBENG WEST DISTRICT - VANDERBIJLPARK**

Y. VAN ZYL

J.H. BUITENDACH

*Research Unit for People, Policy & Performance,  
Potchefstroom University for CHE, Vaal Triangle Campus*

## **ABSTRACT**

The objective of this study was to determine the relationship between occupational stress, job satisfaction and organisational commitment of educators on senior level in the Sedibeng West District - Vanderbijlpark. A cross-sectional survey design was used. Stratified random samples of educators on senior level ( $N=140$ ) were taken in the Sedibeng West District - Vanderbijlpark. The ASSET Organisational Stress Screening Tool, the Minnesota Satisfaction Questionnaire, the Organisational Commitment Questionnaire Survey and a biographical questionnaire were used as measuring instruments. Structural equation modelling confirmed a 8-factor model for perceptions of the job, a 2-factor model for attitudes towards the organisation and a 2-factor model for health, all for the ASSET Organisational Stress Screening Tool. Also a 2-factor model was confirmed for job

satisfaction and a 3-factor model for Organisational Commitment. The scales indicated acceptable internal consistencies.

## **OPSOMMING**

Die doelstelling van hierdie navorsing was om die verband tussen beroepsverwante spanning, werkstevredenheid en organisatoriese betrokkenheid vas te stel vir onderwysers op seniorvlak in die Sedibeng-Wes Distrik - Vanderbijlpark. 'n Dwarssnee opname ontwerp is gebruik. 'n Gestratifiseerde ewekansige steekproef van onderriggewers ( $N=140$ ) is geneem in die Sedibeng-Wes Distrik - Vanderbijlpark. Die "ASSET Organisational Stress Screening Tool", die Minnesota Werkstevredenheidsvraelys, die Organisatoriese betrokkenheidsvraelys en 'n biografiese vraelys is gebruik as meetinstrumente. Strukturele vergelykingsmodellering het 'n 3-faktormodel vir persepsies van werk, 'n 2-faktor model vir houding teenoor die organisasie en 'n 2-faktor model vir gesondheid bevestig, almal vir die "ASSET Organisational Stress Screening Tool". 'n 2-Faktor model vir werkstevredenheid en 'n 3-faktor model vir organisatoriese betrokkenheid is ook bevestig. Die meetinstrumente het 'n aanvaarbare interne konsekwentheid getoon.

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# INTRODUCTION

Teaching is a time-honoured profession. Traditionally, teachers were seen as the providers of on-site education. In the past, there was a standard curriculum; subjects that were deemed important to all students were taught in routine and didactic ways. Teaching involved imparting information and knowledge to students whose role was to memorise this information and feed it back to their teachers during examinations. Today, however, the role of teaching has considerably changed in the light of advanced technology and increased globalisation (Greenglass & Burke, 2003).

The classroom as we knew it, bound in time and space, has now been enlarged in cyberspace. Teachers are confronted by the rapid development of knowledge and technology. They must take into account the development of other sources of information outside the school as well as young people's changing relationship to information, culture and knowledge. With widespread use of computers, the internet, and e-mail, the classroom can exist wherever technology can be extended. With the increase in knowledge in so many fields, the emphasis today is more on learning skills to handle advanced information, rather than memorisation of facts. In fact, due to increased technology, the classroom is no longer necessary for teaching and learning, as we know it (Greenglass & Burke, 2003).

South African education has changed fundamentally and teachers have had to adopt to this new reality. They probably experience even more stress because of these changes in the basic occupational structure of teaching (Hayward, 1994). Teachers can be included in the group of South Africans suffering from high levels of stress (van Zyl & Pietersen, 1999).

Stress is the general term applied to the pressures people feel in life (Newstorm & Davis, 2002). The presence of stress at work is almost inevitable in many jobs. However, individual differences account for a wide range of reactions to stress, a task viewed as challenging by one person may produce high levels of anxiety in another.

Conditions that tend to cause stress are called stressors (Newstrom & Davis, 2002). Although even a single stressor may cause major stress, usually stressors combine to pressure an employee in a variety of ways until stress develops (Newstrom & Davis, 2002). According to Kinman (2001) research has demonstrated that stressors can have a wide-ranging negative impact on the individual. Strain refers to reactions to the conditions of stress (Dollard, Winefield & Winefield, 2003), and is observable at several levels:

- cognitive (e.g. poorer quality decision making, lower levels of creativity, impaired memory);
- behavioural (e.g. absenteeism, poor time management, substance abuse, irritability);
- physical (e.g. headaches, digestive disorders, cardiovascular disease);
- psychological (e.g. depression, anxiety, low self-esteem) (Kinman, 2001).

Job satisfaction is a set of favourable or unfavourable feelings and emotions with which employees view their work. Job satisfaction is an affective attitude – a feeling of relative like or dislike toward something (Newstrom & Davis, 2002). Employees who are satisfied with their jobs are likely to be better ambassadors for the organisation and show more organisational commitment (Agho, Price & Mueller, 1992).

Organisational commitment is an individual's orientation toward the organisation in terms of loyalty, identification and involvement (Robbins, 1989). Allen and Meyer (1990) propose that there are three components of organisational commitment, namely, affective, continuous and normative components. The affective component of organisational commitment refers to the employee's emotional attachment to, identification with, and involvement in the organisation. The continuance component refers to commitment based on the costs that the employee associates with leaving the organisation. The normative component refers to the employee's feeling of obligation to remain with the organisation.

The objective of this study was to determine if occupational stress, job satisfaction and organisational commitment are related, and whether occupational stress can predict job satisfaction and organisational commitment.

### **Occupational stress, job satisfaction and organisational commitment**

According to Rigby, Bennett and Boshoff (1996) occupational stress is especially significant for teachers since it may affect not only the teachers, but also the teachers' stress may have a negative impact on their pupils as well. Teacher stress is therefore a problem for the individual teacher, the students, the school, the teaching profession and the educational system (Rigby, Bennett & Boshoff, 1996).

According to Aldwin (2000) stress refers to that quality of experience, produced through a person-environment transaction that through either over-arousal or under-arousal, results in psychological or physiological distress. Dunham (1992) defines stress as a process of behavioural, emotional, mental and physical reactions caused by prolonged, increasing or new pressures that are significantly greater than coping resources.

According to Gold and Roth (1993) there are two general perspectives that have been identified. One is that stress is a result of something outside the individual, i.e. external factors are the cause of stress. The other viewpoint is that stress is internal; it is what goes on inside individuals as they interpret or react to what is going on around them. Stress can only be defined as a condition of disequilibrium within the emotional and physical state of the individual; it is generated by one's perceptions of a situation, which result in physical and emotional reactions. It can be either positive or negative, depending upon one's interpretations. This definition of stress includes three major aspects: (1) stress is triggered and sustained by the intellectual or cognitive processes a person chooses to use, (2) it is affected by the emotions we experience, and (3) it affects our physical condition or health. In other words, stress involves all of an individual (Gold & Roth, 1993).

Almost any job condition can cause stress, depending on an employee's reaction to it (Newstrom & Davis, 2002). There are, however, a number of job conditions that frequently cause stress for educators. It is important in dealing with stress to be able to identify the stressors in the educator's working environment that may lead to burnout, job dissatisfaction and low organisational commitment. The following stressors are highlighted:

### **Lack of fit between person and environment**

People both influence and respond to their environments. Therefore, stress is essentially the degree of fit between the person and the environment. In other words, it is not the environment per se that is stressful, but it is the relationship between the person and the environment that may result in the experience of stress (Travers & Cooper, 1996). Stress is not simply an environmental stimulus or a response to environmental demands, but a dynamic relational concept. There is constant interplay between the person and the environment (Travers & Cooper, 1996). According to the Conservation of Resources (COR) theory of stress (Friedman, 2000) which was spawned by the Person-Environment Fit Theory, psychological stress occurs under one of three conditions (1) when resources (i.e., objectives that one strives to attain) are lost, (2) when resources are diminished, and (3) when the individual fails to reap the anticipated return for the resources he invests.

According to Travers and Cooper (1996) stress occurs at the point at which the magnitude of the stress stimuli exceeds the individual's capacity to resist. In order to deal with the experience of stress, a person may attempt either to alter his or her environment or to learn ways of trying to change how he or she reacts to a particular situation. Therefore, coping occurs in order to try and reach a state of fit between the person and the environment to overcome stressful situations.

## **The classroom**

Oversized classes with either inadequate or no teaching assistance also function as stressors in teachers (Dollard, Winefield & Winefield, 2003). The classroom itself generates much stress and tension. It may hold between 30 and 40 pupils or more, each with his/her own personality, each with his/her own expectations, problems, preferences, clamouring for the teacher's attention. In one year a thousand hours are spent trying to maintain control, daily teaching requirements, and catering for the needs of the pupils even if they don't excel. The tension is compounded by poor equipment, overcrowding, extra teaching, curricular duties and dissatisfaction with one's own effort (Dewe, 1986).

## **Supervision**

Strained relations between supervisors and teachers over unsatisfactory evaluations have often been regarded as significant teacher stressors (Cedoline, 1982). Feelings of diminished personal accomplishment occur when teachers perceive themselves as ineffective in helping students to learn and in fulfilling other school responsibilities (Dollard, Winefield & Winefield, 2003). Sooful (1992) found that 74% of her sample perceived the system of educator evaluation to be very stressful. According to Needle, Griffen, Svendsen and Berney (1980) poor quality of supervision and out-of-touch administrators are often cited as significant stressors in teaching.

## **Time pressures**

Educators feel that they still take home considerable work, which they cannot complete at school. They also complain about overtime without extra compensation or even appreciation for their efforts (Wevers & Steyn, 2002). The cumulative impact of such pressures is eroding the profession by robbing teachers of the basic satisfactions of the work (Tye & O'Brien, 2002).

### **Learner discipline**

One of the most frequently acknowledged stressors for teacher centres around students. Problems with students include disruptive behaviour, such as verbal and physical abuse, emotional demands of students, their special needs, and a heterogeneity of inabilities, all of which tax the time and energy of an already busy teacher (Boyle, Borg, Falzon & Baglioni, 1995; Hodge, Jupp & Taylor, 1994; Dollard et al., 2003). Therefore teachers often find themselves having to devote more time and energy to classroom management than to actual teaching (Tye & O'Brien, 2002).

### **The system of promotion**

Sooful (1992) has contended that there is a higher probability of burnout among educators when their needs for self-actualisation and self-esteem are unfulfilled. Lowered self-esteem, greater job dissatisfaction and feelings of alienation and depression are engendered. Lowered self-esteem, greater job dissatisfaction and feelings of alienation and depression are engendered. Her study showed that the vast majority of Level 1 educators and heads of departments perceived the system of promotion as being a source of moderate or considerable stress. The reasons for dissatisfaction relates to the following: unfairness in the system of promotion, subjectivity, favouritism, nepotism, the constantly changing criteria used for deciding on promotions, lack of recognition of educators' efforts and gender discrimination.

### **Salary**

Sooful (1992) found that 97% of her sample saw themselves earning a salary that was disproportionate to the nature and amount of work they did. Most educators feel that their salaries are inferior to the amount of work they do. Educators constantly compare their salaries and other benefits with employees in other sectors and they are not satisfied with the outcomes of the comparisons. However, they do not demand salaries that compete with the



highest paid employees, but only the salaries they deserve (Wevers & Steyn, 2002).

### **Lack of decision-making**

When teachers do not have the opportunity to participate in the school's decision-making processes, their morale, motivation, self-esteem, and job-satisfaction are more likely to decline (Greenglass & Burke, 2003). In Sooful's 1992 study, 85% of educators in the total sample perceived insufficient opportunities available to them for decision-making as a source of moderate or considerable stress.

### **Role conflict**

Role conflict may be seen to exist when an individual is torn between conflicting demands placed upon them by others or when conflict exists between their job and their personal beliefs. Therefore stress may result from the inability to meet these various expectations or demands. The results of this conflict have been found to result in lower job satisfaction and higher job tension (Travers & Cooper, 1996).

### **Role ambiguity**

Role ambiguity occurs when an individual is uncertain about his or her job role, for instance the latitude of their authority and responsibilities or the ways in which work performance is evaluated (Khan & Cooper, 1993).

The outcome of this can be job dissatisfaction, lack of self-confidence, feelings of futility, lack of self-esteem, depression, low motivation and the behavioural outcome of increased intention to leave the job (Travers & Cooper, 1996). Role ambiguity is a pervasive part of the teachers' experience due to the endemic uncertainty regarding the teachers' role in the school (Schwab & Iwanicki, 1982). A feature that perhaps exacerbates the problem is teachers' apparent lack of knowledge of how to cope with the insecurity resulting from

the unpredictability of, and confrontations in their occupation (Dunnham, 1981).

### **Role overload**

According to Dollard, Winefield and Winefield (2003) quantitative work overload involves too many demands on teachers with too little time in which to meet these demands adequately. Often it is accompanied by feelings of being rushed and impatience. The importance of work overload as a stressor is underlined by the fact that teachers themselves in countries all over the world have consistently cited work overload as a major stressor in their job. Important dimensions associated with work overload are excessive paper work, lack of time for preparation for class, working reports, and submitting grades for deadlines.

### **Role insufficiency**

This is when inadequate equipment, supplies, and/or information make it difficult to do the job properly (Estridge & Coker, 1985). Some academic staff reported a lack of resources to deliver the necessary support services; they also referred to a lack of necessary equipment and lack of funding to maintain existing equipment. In particular, staff referred to a lack of quality teaching aids and general workplace tools (Gillespie et al., 2001).

### **Responsibility for others**

Dealing with pupils is the major aspect of their job, and many problems and potential sources of stress can result from this as pupils can be disruptive and undisciplined in their behaviour (Travers & Cooper, 1996). The behaviour of children may be very unpredictable and this noisy, rowdy, often abusive and insolent behaviour may lead to teachers feeling vulnerable, making them doubt their teaching methods and skills or their ability to cope (Dunham, 1981).

## **Redundancy, retrenchments and cutbacks**

Some of the common features of working life are the fear of job loss and the threat of redundancy. With job insecurity there is subsequent deterioration of the morale and motivation of a workforce, which may lead to a negative impact on their job performance, efficiency and commitment (Travers & Cooper, 1996).

## **Educator strikes**

For teachers who strike, those who do not, administrators and supervisors who cannot, and parents and students, a strike is stressful. The more prolonged the strike is, the greater the strain. Decidedly, it is one of the most difficult and stressful situations in education (Greenberg, 1984).

Since 1993 when African, Indian and Coloured educators embarked initially on a chalk down and subsequently on a two-week strike, strike action has become a common response to intransigent and unilateral action on the part of the provincial and national departments of education.

Intimidation of those who were averse to the idea of making children bear the brunt of the concerted action against the Department of Education was one of the most pernicious aspects of the strike (Apdusa Views, 1993).

All of these conditions discussed above add to the many sources of stress with which teachers are constantly trying to deal. Identification of the causes of a teacher's stress is necessary if the individual is to learn how to handle pressures in both their personal and professional lives. Once they have identified the source of their stress, they can then begin looking at the ways they manifest the stress and evaluate both the positive outcomes and the negative consequences (Gold & Roth, 1993).

Some people are optimistic, upbeat, cheerful, and courteous; they are said to have positive affectivity. Others are generally pessimistic, downbeat, irritable, and even abrasive; they are said to have negative affectivity. It appears that people are predisposed to be satisfied or dissatisfied (Newstrom & Davis,

2002). One of the major significant behavioural manifestations of the experience of stress at work is low job satisfaction (Travers & Cooper, 1996). Teachers who experience job dissatisfaction also tend to be less committed to their work. The following remark aptly captures the lack of job satisfaction experienced by many teachers: "I should think that teaching was a very good profession in the past, but now you just come to work because you've got to work" (Steyn & van Wyk, 1999).

According to Coetsee (2003) job satisfaction is a positive or negative attitude that individuals have about their jobs. It results from how they perceive their jobs and related matters (e.g. supervisory style, support, challenge, pay, benefits) and the degree to which there is a good fit between the individual and the organisation.

Job dissatisfaction may lead to increased absenteeism, turnover, and other undesirable behaviours. On the other hand higher job involvement leads to higher levels of dedication and productivity in workers. High performance and equitable rewards encourage high satisfaction through a performance-satisfaction-effort loop. Higher job satisfaction usually is associated with lower turnover and fewer absences. Committed employees are more likely to embrace company values and beliefs (Newstrom & Davis, 2002).

According to Wevers and Steyn (2002) motivated educators are a crucial component of effective schools. The degree of satisfaction that educators derive from their work, will determine the effectiveness with which they fulfil their duties. Educators are motivated by both intrinsic and extrinsic factors (Wevers & Steyn, 2002). Intrinsic motivators are internal rewards that a person feels when performing a job, so there is a direct and often immediate connection between work and rewards. An employee in this situation is self-motivated. Extrinsic motivators are external rewards that occur apart from the nature of work, providing no direct satisfaction at the time the work is performed. Examples are retirement plans, health insurance, and vacations (Newstrom & Davis, 2002).

Intrinsic factors identified in the study of Wevers and Steyn (2002) among educators were the following:

**Learner-oriented factors.** The greatest satisfaction and motivation are derived from educators' daily interaction with learners. This factor can also be a source of great dissatisfaction, due to disciplinary problems that educators have to cope with.

**Achievement.** Educators experience great satisfaction when they are able to help learners to achieve positive results. They perceive learners to achieve positive results. They perceive learners' achievement as a personal achievement and it has a positive influence on their motivation.

**Acknowledgement and praise.** Educators long for acknowledgement and praise for their achievements that serve as a positive reinforcement for effectiveness. If educators receive acknowledgement for work well done, they will feel positive about themselves and will strive to maintain and even improve. Educators identified the following ways of acknowledgement that they wish to receive: merit awards, invitations to make meaningful education inputs, appreciation for good work, opportunities to take initiative, and sincere interest in their work shown by school managers.

**Positive work impact.** Educators experience great satisfaction when they have a positive impact on the work and lives of others.

**Autonomy.** The degree of autonomy allowed to educators has an impact on their motivation. Educators want to have a say in their work situation. They want the freedom to develop and implement their own methods in the classroom without fearing school authorities. Educators experience a lack of autonomy as a lack of confidence in their abilities that has a negative influence on their motivation.

Wevers and Steyn's (2002) study highlights the following extrinsic factors among educators:

**Salaries.** Most educators feel that their salaries are inferior to the amount of work they do. Educators constantly compare their salaries and other benefits with employees in other sectors and they are not satisfied with the outcomes of the comparisons. However, they do not demand salaries that compete with the highest paid employees, but only the salaries they deserve.

**Promotion.** When educators enter the teaching profession, they strive for certain goals. Most educators in Wevers and Steyn's study indicate that promotion to a higher post level was one of their goals. The possibility of promotion serves as a positive motivator. When educators strive for promotion and it is not realised, it has a negative impact on their effectiveness and motivation. Educators put a high premium on positive staff relations. They work in an environment that requires teamwork and good relations. If relations among educators are not good, it will have a negative influence on the individual teacher's effectiveness and motivation.

**Job security.** It is important that educators experience job security. Educators who are facing the possibility of retrenchment or unwanted redeployment, or educators who are confronted with major changes in the curriculum, experience a feeling of insecurity and are not as effective and motivated as educators in a secure working environment.

**Fair treatment.** Educators want to be treated fairly. Any discriminatory actions against them are perceived negatively, reducing their effectiveness and motivation. Educators also constantly compare the treatment they receive with the treatment their peers receive. If treated unfairly, educators adjust their work efforts accordingly.

**Professional respect.** Many educators hold the view that they do not get the professional respect they deserve. Many mentioned that they are not consulted when changes in education are discussed. Educators perceived this as disrespectful since it reduces them to mere marionettes of the educational authorities. This treatment has a negative influence on their self-esteem and motivation.

**Lack of support services.** Educators also feel that the support services available are insufficient. The lack of support services makes educators feel unsure, vulnerable and frustrated. They want more opportunities to discuss and find solutions for common problems collectively. They also want more support regarding the curriculum changes.

**Working hours.** Due to the extra working hours added to their working day, educators feel that their hours are unrealistic and unpractical. Educators feel that they still take home considerable work that they cannot complete at school. They also complain about overtime without extra compensation or even appreciation for their efforts.

**Disciplinary problems.** Educators feel that disciplinary problems are one of the most demotivating factors at classroom level. They are frustrated because they lack the tools to cope with the situation, especially since the abolishment of corporal punishment.

**Lack of community commitment.** The lack of commitment from the school community is a great concern to educators. It puts more pressure on already overloaded educators who have to do their job and in many cases assume the responsibilities of parents.

Yousef (1999) found that there is a significant positive relationship between job satisfaction and organisational commitment.

Despite the plethora of studies of organisational commitment and its nature, antecedents, consequences and collates, the construct remains ill-defined and ill-conceptualised (Suliman & Iles, 2000b).

Organisational commitment is defined as the employee's feelings of obligation to stay with the organisation: feelings resulting from the internalisation of normative pressures exerted on an individual prior to entry or following entry (Allen & Meyer, 1990).

Bishop and Scott (2000) define organisational commitment as a relative strength of an individual's identification with and involvement in a particular organisation.

Chow (1994) defined organisational commitment as the extent to which employees identify with their organisation and managerial goals, show a willingness to invest effort, participate in decision-making and internalise organisational values.

Organisational commitment reflects the extent to which an individual identifies with an organisation and is committed to its goals (Kreitner & Kinicki, 1995).

Commitment is usually stronger among longer-term employees, those who have experienced personal success in the organisation, and those working within a committed employee group. Organisationally committed employees will usually have good attendance records, demonstrate a willing adherence to company policies, and have lower turnover rates (Newstrom & Davis, 2002).

According to Meyer and Allen (1991), organisational commitment can take three distinct forms. Affective commitment refers to identification with, involvement in, and emotional attachment to the organisation, in the sense that employees with strong affective commitment remain with the organisation because they want to do so. Continuance commitment refers to commitment based on employees' recognition of the costs associated with leaving the organisation. Thus, employees with strong continuance commitment remain with the organisation because they have to do so, either because of low perceived alternatives or because of high personal sacrifice associated with leaving the organisation. Normative commitment refers to commitment based on a sense of obligation to the organisation. Therefore, those with strong normative commitment remain with the organisation because they feel they ought to do so. One could argue that those with strong affective commitment would be more willing to accept change, provided that such a change is not altering the basic values and goals of the organisation, and is seen as beneficial to the organisation, since organisational commitment reflects a belief in the values and goals of the organisation.



According to Suliman and Iles (2000a) the following are important aspects of organisational commitment; it improves employees' performance; i.e. committed employees are assumed to be motivated to work hard and put in more effort than less committed employees; it fosters better superior-subordinate relationships; it enhances organisational development, growth and survival; it improves work environment; it negatively influences withdrawal behaviour, such as turnover, tardiness and absenteeism; and it has positive impacts on employees' readiness to innovate and create.

The following research questions are based on the description of the problem:

- How are occupational stress, job satisfaction and organisational commitment conceptualised in the literature?
- How is the relationship between occupational stress, job satisfaction and organisational commitment of educators on senior level in the Sedibeng West District – Vanderbijlpark conceptualised?
- What is the current level of occupational stress of educators on senior level in the Sedibeng West District – Vanderbijlpark?
- What is the current level of job satisfaction of educators on senior level in the Sedibeng West District – Vanderbijlpark?
- What is the current level of organisational commitment of educators on senior level in the Sedibeng West District – Vanderbijlpark?
- What is the relationship between occupational stress, job satisfaction and organisational commitment of educators on senior level in the Sedibeng West District – Vanderbijlpark?
- What recommendations can be made for the prevention and/or management of occupational stress, job satisfaction and organisational commitment of educators on senior level in the Sedibeng West District – Vanderbijlpark?

# **METHOD**

## **Research design**

A cross-sectional survey design has been used to describe the information on the population collected at that time. Cross-sectional designs are appropriate where groups of subjects at various stages of development are studied simultaneously, whereas the survey technique of data collection gathers information from the target population by means of questionnaires (Burns & Grove, 1993). This design can also be used to evaluate interrelationships among variables within a population (Shaughnessy & Zechmeister, 1997). According to Shaughnessy and Zechmeister (1997), this design is also ideal to describe and predict functions associated with correlative research.

## **Study population**

The study population could be defined as a stratified random sample of educators on senior level ( $N=140$ ) in the Sedibeng West District – Vanderbijlpark. A response rate of 82,14% was achieved. Descriptive information of the sample is given in Table 1.

**Table 1***Characteristics of the participants*

<b>Item</b>	<b>Category</b>	<b>Percentage</b>
<b>Age</b>	Less than 25	3,92%
	25-34	25,49%
	35-44	34,31%
	45-54	28,43%
	55+	7,84%
<b>Gender</b>	Male	37,72%
	Female	62,28%
<b>Contract</b>	Permanent	74,34%
	Temporary	23,01%
	Fixed-term	2,65%
<b>Productive</b>	100%	15,60%
	90-99%	21,10%
	80-89%	36,70%
	70-79%	15,60%
	Less than 70% productive	11,01%

In summary, the group can be described as follows: The mean age of the respondents was 40, with 34,31% falling within the 35 to 44 age bracket, 25,49% falling within the 25-34 age bracket and 28,43% falling within the 45-54 age bracket. The majority of this group were female (62,28%). A large percentage of the participants indicated that they were employed on a permanent basis (74,34%), 23,01% are employed on a temporary basis and 2,65% on fixed term. A large percentage of the participants indicated that they felt they were 80 – 89% productive.

## Measuring Batteries

The ASSET Organisational Stress Screening Tool (Cooper & Cartwright, 2001), the Minnesota Satisfaction Questionnaire (MSQ) (Weiss et al., 1967) and the Organisational Commitment Questionnaire (Meyer et al., 1993) was used in this study. Biographical information was also gathered.

The ASSET Organisational Stress Screening Tool (Cooper & Cartwright, 2001) was used to measure the levels of occupational stress of educators on senior level in the Sedibeng West District - Vanderbijlpark. Cooper and Cartwright (2001) designed the ASSET as an initial screening tool, based on a large body of academic and empirical research, to help organisations assess the risk of stress in their workforce. It measures potential exposure to stress with respect to a range of common workplace stressors. It also provides important information on current levels of physical health, psychological well-being and organisational commitment and provides data to which the organisation can be compared. The ASSET is divided in four questionnaires. The first questionnaire measures the individual's **perception of his or her job**. This subscale includes questions relating to eight potential sources of stress, namely: work relationship; work-life balance; overload; job security; control; resources and communication; job overall; and pay and benefits. The second questionnaire measures the individual's **attitude toward his or her organisation**, and includes questions relating to perceived levels of commitment both from and to the organisation. The third questionnaire focuses on the **individual's health**, aimed at specific outcomes of stress, and includes questions relating to both physical and psychological health. The fourth questionnaire focuses on **supplementary information**, i.e. the background information with specific references to academics in higher education institutions, and includes questions relating to factors that can affect stress. The structure of each of the three main sections of the ASSET questionnaire (perception of your job; attitudes towards your organisation; and your health) was examined in detail, using the responses obtained from 2544 respondents. Each of the three main sections was then subjected to an exploratory factor analysis to explore the latent structure of the scale items

Cooper and Cartwright (2001). Furthermore, the authors obtain inter-item correlations of low to moderated magnitude between the factors of the Perceptions-of-your-job scale. Inter-item correlations of moderated magnitude were obtained for factors of the "Attitudes-to-your-organisation" scale, concluding that the items largely measure different concepts. The correlation between the psychological well-being and physical health factors was ( $r = 0.657$ ), indicating the difficulty often experienced in distinguishing between physical and psychosomatic symptoms (Cooper & Cartwright, 2001). However, validity is still to be completed (ASSET Manual, Cooper & Cartwright, 2001). Reliability is based on Guttman split-half coefficient. All but two factors returned coefficients in excess of 0.7, ranging from 0.60 to 0.911 (Cooper & Cartwright, 2001).

The Minnesota Satisfaction Questionnaire (MSQ) (Weiss et al., 1967) was used to measure job satisfaction. The MSQ (shortened version) has 20 items and measures satisfaction with various aspects of a job. Test-retest reliabilities of 0,70 and 0,80 were found over a span of a week and a year respectively (Cook et al., 1981). Rothmann (2001) found a Cronbach alpha coefficient of 0,96 and an inter-item correlation of 0,22, which is acceptable for broad higher order constructs (Clark & Watson, 1995).

The Organisational Commitment Questionnaire (Meyer et al., 1993) was used to measure the organisational commitment of the respondents. The Organisational Commitment Questionnaire consists of 18 items rated on a five-point Likert type scale (1=strongly disagree, 5=strongly agree). Choices on the end (5) of the scale indicate total agreement with the item whereas choices at the beginning of the scale (1) indicate total disagreement with the statement made in the item, hence indicating the level or degree of organisational commitment. McDonald and Makin (2000), in their study of the organisational commitment of temporary staff in an UK organisation, found the reliability scale to be 0,84. Allen and Meyer (1990) stated that inter-correlations between different samples were often above 0,90, which indicates that the combined factor is congruent. Cronbach alpha coefficients were consistently above 0,80 for every one of these sub-scales (Suliman & Iles,

2000a). Results from South African studies support the reliability and validity of the questionnaire (Bagraim & Hayes, 1999).

### **Statistical analysis**

The statistical analysis was carried out with the help of the SAS-program (SAS Institute, 2000) and the Amos-program (Byrne, 2001). The SAS-program was used to carry out statistical analysis regarding reliability, validity, construct equivalence and predictive bias of the measuring instruments, descriptive statistics, analysis of variance, correlation coefficients and canonical analysis. The Amos program was used to carry out structural equation modelling.

The statistical analysis proceeded as follows:

Structural equation modelling was used to determine the factorial validity of the measuring instruments. Structural equation modelling is a statistical methodology that takes a confirmatory (i.e. hypothesis-testing) approach to the analysis of a structural theory bearing on some phenomenon (Byrne, 2001). The term "structural equation modelling" (SEM) conveys two important aspects of the procedure, namely that the causal processes under study are represented by a series of structural (i.e. regression) equations, and that these structural relations can be modelled pictorially to enable a clear conceptualisation of the theory under study. Several aspects of SEM set it apart from the older generation of multivariate procedures (Byrne, 2001). First, it takes a confirmatory rather than an exploratory approach to data analysis. Furthermore, by demanding that the pattern of intervariable relations be specified a priori, SEM lends itself well to the analysis of data for inferential purposes. Second, although traditional multivariate procedures are incapable of either assessing or correcting for measurement error, SEM provides explicit estimates of these error variance parameters. Third, SEM procedures can incorporate both unobserved (latent) and observed variables.

The Goodness-of-Fit Index (GFI) indicates the relative amount of the variances/co-variances in the sample predicted by the estimates of the population. It usually varies between 0 and 1 and a result of 0.90 or above

indicates a good model fit. In addition, the Adjusted Goodness-of-Fit Index (AGFI) is given. The AGFI is a measure of the relative amount of variance accounted for by the model corrected for the degrees of freedom in the model relative to the number of variables. The GFI and AGFI can be classified as absolute indexes of fit because they basically compare the hypothesised model with no model at all (Hu & Bentler, 1995). The Parsimony Goodness-of-Fit Index (PGFI) addresses the issue of parsimony in SEM (Mulaik et al., 1989). The PGFI takes into account the complexity (i.e. number of estimated parameters) of the hypothesised model in the assessment of overall model fit and provides a more realistic evaluation of the hypothesised model. Mulaik et al. (1989) suggest that indices in the 0.90 are accompanied by PGFIs in the 0.50s are not unexpected. However, values higher than 0.8. are considered to be more appropriate (Byrne, 2001).

The Normed Fit Index (NFI) is used to assess global model fit. The NFI represents the point at which the model being evaluated falls on a scale running from a null model to perfect fit. This index is normed to fall on a 0 to 1 continuum. Marsh, Balla and Hau (1996) suggest that this index is relatively insensitive to sample sizes. The Comparative Fit Index (CFI) represents the class of incremental fit indices in that it is derived from the comparison of a restricted model (i.e. one in which structure is imposed on the data) with that of an independence (or null) model (i.e. one in which all correlations among variables are zero) in the determination of goodness-of-fit. The Tucker-Lewis Index (TLI) (Tucker & Lewis, 1973) is a relative measure of covariation explained by the model that is specifically developed to assess factor models. For these fit indices (NFI, CFI and TLI) it is more or less generally accepted that a value of less than 0.90 indicates that the fit of the model can be improved (Hoyle, 1995), although a revised cut-off value close to 0.95 has recently been advised (HU & Bentler, 1999).

Browne and Cudeck (1993) suggested using the Root Mean Square Error of Approximation (RMSEA) and the 90% confidence interval of the RMSEA. The RMSEA estimates the overall amount of error; it is a function of the fitting value relative to the degrees of freedom. The RMSEA point estimate should

be 0.05 or less and the upper limit of the confidence interval should not exceed 0.08. Hu and Bentler (1999) suggest a value of 0.06 to be indicative of good fit between the hypothesised model and the observed data. MacCallum, Browne and Sugawara, (1996) recently elaborated on these cut-off points and noted that RMSEA values ranging from 0.08 to 0.10 indicate mediocre fit, and those greater than 0.10 indicate poor fit.

Principal factor extraction with varimax rotation was performed through SAS FACTOR on the measuring instruments which have no confirmed factor structure. Principal component extraction was used prior to principal factor extraction to estimate the number of factors, presence of outliers and factorability of the correlation matrices. The eigenvalues and scree plot were studied to determine the number of factors underlying a specific measuring instrument. The oblique method with a promax rotation was requested prior to the varimax rotation, to determine whether obtained factors are significantly related ( $r > 0.35$ ).

A SAS procedure to conduct targeted rotations (Procusts rotations) (as described by McCrae, Zonderman, Costa, Bond & Paunonen, 1996) was used to determine the construct equivalence of the measuring instruments for different language groups. According to Van de Vijver and Leung (1997), it is not acceptable to conduct factor analysis for different cultural groups to address the similarity of factor-analytic solutions because the spatial orientation of factors in factor analysis is arbitrary. Rather, prior to an evaluation of the agreement of factors in different cultural groups, the matrices of loadings should be rotated with regard to each other. The factor loadings of separate groups are rotated to a joint common matrix of factor loadings. The procedure consists of the following steps: firstly the target structure is specified; secondly the hypothesised number of factors is extracted and varimax rotation is used to obtain exploratory factor loadings in the new sample; thirdly a targeted rotation is performed to examine the extent to which differences between the target and varimax matrix are due solely to the rotation of the axes; and fourthly congruencies are calculated using Tucker's coefficient of agreement (Tucker's  $\phi$ ). This coefficient is insensitive to



multiplications of the factor loadings, but is sensitive to a constant added to all loadings of a factor. This index does not have a known sampling distribution hence it is impossible to establish confidence intervals. Values higher than 0.95 are seen as evidence for factorial similarity, whereas values lower as 0.85 are taken to point to non-negligible incongruities (Van de Vijver & Leung, 1997).

An extension of Clearly and Hilton's (1968) use of analysis of variance was applied to identify item bias in measuring instruments (Van de Vijver & Leung, 1997). Bias was examined for each item separately. The item score was regarded as the dependent variable, while language groups and score levels were regarded as the independent variables. A total of ten score levels was obtained by making use of percentiles identified through SAS univariate. This made it possible to use score groups with at least 50 persons each. Two effects were tested through analysis of variance, namely, the main effect of culture (language) and the interaction of score level and culture. When both the main effect of culture and the interaction of score level and culture are non-significant, the item is taken to be unbiased.

Cronbach alpha coefficients and inter-item correlation coefficients were used to assess the reliability and validity of the measuring instruments.

Descriptive statistics (e.g. means, standard deviations, range, skewness and kurtosis) and inferential statistics were used to analyse the data. Pearson and Spearman correlation coefficients were computed to determine the relationships between variables. Canonical analysis was conducted to determine the relationships between sets of variables. A cut-off point of  $p = 0.05$  was set for the statistical significance of the results. Effect sizes were used to decide on the practical significance of the findings. A cut-off point of 0.30 was set for the practical significance of correlation coefficients.

## RESULTS

Structural equation modelling (SEM) methods were used to test factorial models for the ASSET Organisational Stress Screening Tool, MSQ and Organisational Commitment. Analysis of the data proceeded as follows: firstly studying the overall  $\chi^2$  goodness-of-fit statistic in conjunction with its degrees of freedom and probability value, using comparative fit indices, such as the Goodness-of-Fit Index (GFI), the Adjusted Goodness-of-Fit Index (AGFI), the Parsimony Goodness-of-Fit Index (PGFI), the Normed-Fit Index (NFI), the Comparative-Fit Index (CFI), the Tucker-Lewis Index (TLI) and the Root Mean Square Error of Approximation (RMSEA).

### *Hypothesised models of stress*

Table 2 presents fit statistics for the testing of the models

**Table 2.1**

*Goodness-of-fit statistics for the ASSET Organisational Stress Screening Tool (Attitudes towards organisation)*

Model	$\chi^2$	$\chi^2/df$	GFI	AGFI	PGFI	NFI	TLI	CFI	RMSEA
Model	39,15	1,51	0,93	0,88	0,54	0,95	0,97	0,98	0,07

The goodness-of-fit statistics indicate acceptable levels of model fit for the GFI, NFI, TLI and CFI. The RMSEA value is lower than 0,08 and is acceptable for fit. The AGFI and PGFI are below the acceptable levels of fit. Because this model represented acceptable comparative evidence of fit, no further modification of the model was deemed necessary.

**Table 2.2**

*Goodness-of fit statistics for the ASSET Organisational Stress Screening Tool (Health)*

<b>Model</b>	<b>X<sup>2</sup></b>	<b>χ<sup>2</sup>/df</b>	<b>NFI</b>	<b>TLI</b>	<b>CFI</b>	<b>RMSEA</b>
<b>Model</b>	254,64	1,90	0,95	0,97	0,97	0,09

The goodness-of-fit statistics indicate acceptable levels of model fit for the NFI, TLI and CFI. The RMSEA value is higher than 0,08, indicating a mediocre fit.

### ***Hypothesised model of job satisfaction***

The 20-item theoretical model was tested. Table 3 presents fit statistics for the test of the model.

**Table 3**

*Goodness-of-fit statistics for the MSQ Model*

<b>Model</b>	<b>X<sup>2</sup></b>	<b>χ<sup>2</sup>/df</b>	<b>GFI</b>	<b>AGFI</b>	<b>PGFI</b>	<b>NFI</b>	<b>TLI</b>	<b>CFI</b>	<b>RMSEA</b>
<b>Model1</b>	395,47	2,34	0,74	0,68	0,60	0,58	0,66	0,7	0,11
<b>Model2</b>	348,88	2,31	0,75	0,68	0,59	0,60	0,68	0,7	0,11
<b>Model3</b>	310,55	2,32	0,75	0,68	0,59	0,61	0,69	0,73	0,11
<b>Model4</b>	293,67	2,19	0,77	0,71	0,60	0,63	0,72	0,75	0,11
<b>Model5</b>	277,87	2,07	0,78	0,72	0,61	0,65	0,75	0,78	0,10

In Table 3, the obtained  $\chi^2$  value of 395,47 is indicative of a poor overall fit. The goodness-of-fit indices also support the finding by not reaching the recommended critical values. The PGFI is lower than 0,80 and values lower

than 0,90 for the NFI, TLI and CFI were found. The RMSEA value is also higher than 0,08. In order to obtain a better-fit modification of the model is needed. With item 10 deleted, Model 2 resulted. The fit indices for Model 2 did not improve compared to those for the initial model, and this also confirmed a misfit. There is still evidence of misfit in Model 3, 4 and 5 with items 10 and 18 deleted in Model 3, items 10, 15 and 18 deleted in Model 4 and in Model 5 items 10,15,16 and 18 deleted.

### ***Hypothesised model of organisational commitment***

The full 3-factor model of organisational commitment was tested. Table 4 presents fit statistics for the test of the model.

**Table 4**

*Goodness-of-fit statistics for the Organisational Commitment Model*

<b>Model</b>	<b><math>\chi^2</math></b>	<b><math>\chi^2/df</math></b>	<b>GFI</b>	<b>AGFI</b>	<b>PGFI</b>	<b>NFI</b>	<b>TLI</b>	<b>CFI</b>	<b>RMSEA</b>
<b>Model1</b>	294,80	2,23	0,77	0,71	0,60	0,67	0,74	0,78	0,11
<b>Model2</b>	278,11	2,40	0,77	0,70	0,59	0,68	0,74	0,78	0,11
<b>Model3</b>	253,65	2,51	0,77	0,70	0,58	0,70	0,74	0,78	0,12

The statistically significant  $\chi^2$  and fit indices revealed a poor fit of the originally hypothesised Organisational Commitment Model. The NFI, TLI and CFI values lower than 0,90 and RMSEA value higher than 0,08 are indicative of failure to confirm the hypothesised model. To pinpoint possible areas of misfit, modification indexes were examined. It was decided to re-specify the model with item 4 deleted, which resulted in Model 2. The various fit indexes for Model 2 did not improve compared to those for the initial model; this model also confirmed a misfit. In Model 3 item 17 was deleted. The various fit indexes for Model 3 did not improve; there is still evidence of misfit in the model.

Descriptive statistics, Cronbach alpha coefficients and the inter-item correlation coefficients of the ASSET Organisational Stress Screening Tool, MSQ and Organisational Commitment for educators in the Sedibeng West District – Vanderbijlpark are given in Table 5.

**Table 5**

*Descriptive statistics, Cronbach alpha coefficients and inter-item correlation coefficients of the measuring instruments for educators in the Sedibeng West District – Vanderbijlpark.*

Test and items	N	Mean	SD	Skewness	Kurtosis	Inter-item r	$\alpha$
<b>ASSET</b>							
<b>Perceptions of job</b>							
Work relationship	113	7,36	3,13	0,57	-0,48	0,25	0,73
Work-life balance	113	10,11	3,14	0,11	-0,57	0,21	0,43
Overload	113	25,42	7,18	-0,10	-0,32	0,35	0,76
Job security	113	8,25	4,35	0,58	-0,71	0,56	0,78
Control	113	21,85	6,47	0,17	-0,47	0,32	0,74
Resources and communication	113	8,99	4,10	0,69	-0,29	0,39	0,71
Job overall	113	18,16	5,54	0,07	-0,59	0,26	0,71
Pay and benefits	113	13,02	3,80	0,15	-0,01	0,23	0,53
<b>Attitude towards organization</b>							
Commitment to	111	8,13	2,85	-0,77	-0,11	*Note	*Note
Commitment from	111	27,89	8,58	-0,47	-0,66	0,65	0,92
<b>Health</b>							
Physical	115	18,23	6,72	-0,24	-0,19	0,37	0,84
Psychological	115	21,07	7,46	-0,53	0,13	0,57	0,92
<b>MSQ</b>							
Intrinsic	109	44,97	7,62	-0,16	-0,54	0,31	0,84
Extrinsic	109	18,31	4,73	0,09	-0,24	0,32	0,79
<b>Organisational commitment</b>							
Affective	113	3,36	0,83	-0,38	0,02	0,52	0,87
Normative	113	3,40	0,75	-0,48	-0,06	0,22	0,62
Continuance	113	3,28	1,03	-0,24	-0,74	0,30	0,71

With regards to the internal consistency of the scales of the ASSET all demonstrate acceptable Cronbach alpha coefficients; work-life balance and pay and benefits are below the guideline of 0,70 (Nunnally & Bernstein, 1994). Acceptable levels of inter-item correlations have been obtained, in line with the guideline of  $0,15 < r < 0,50$  (Clark & Watson, 1995), except for job security ( $r = 0,56$ ), commitment from the organisation ( $r = 0,65$ ) and psychological health ( $r = 0,57$ ).

Note that: only two items loaded on this factor (commitment to) and therefore the inter-item correlation and Cronbach alpha coefficients could not be determined for commitment to the organisation.

The scales of the MSQ are normally distributed. The internal consistency of the two scales of the MSQ seems to demonstrate acceptable coefficient alphas above the 0,70 guideline (Nunnally & Bernstein, 1994). Acceptable levels at inter-item correlations have been obtained for intrinsic and extrinsic with the guideline of  $0,15 < r < 0,50$  (Clark & Watson, 1995).

The information in Table 5 indicates that the three factors of Organisational Commitment are somewhat negatively skewed. With regards to the internal consistency of the scales, both affective and continuance demonstrate acceptable Cronbach alpha coefficients, The normative scale is below the guideline of 0,70 (Nunnally & Bernstein, 1994). Acceptable levels of inter-item correlations were found for the scale continuance and normative in line with the guideline of  $0,15 < r < 0,50$  (Clark & Watson, 1995).

The correlation coefficients between the ASSET, MSQ and Organisational Commitment of educators in the Sedibeng West District – Vanderbijlpark are reported in Table 6.

**Table 6***Correlation coefficients between the ASSET, MSQ and Organisational Commitment*

Item	Work relationship	Work-life balance	Overload	Job security	Control	Resources and communication	Job overall	Pay and benefits	Commitment to the organisation	Commitment from the organisation	Physical health	Psychological health	Intrinsic	Extrinsic	Affective	Normative	Continuance
Work relationship	1,00																
Work-life balance	0,22*	1,00															
Overload	0,38*+	0,59*++	1,00														
Job security	0,39*+	0,20*	0,07	1,00													
Control	0,53*++	0,36*+	0,50*++	0,29*	1,00												
Resources and communication	0,52*++	0,22*	0,39*+	0,25*	0,53*++	1,00											
Job overall	0,37*+	0,46*+	0,52*++	0,31*+	0,56*++	0,34*+	1,00										
Pay and benefits	0,43*+	0,30*+	0,42*+	0,23*	0,55*++	0,36*+	0,33*+	1,00									
Commitment to the organisation	0,01	0,05	0,23*	-0,11*	-0,07	-0,14*	-0,01	0,06	1,00								
Commitment from the organisation	-0,29*	-0,14*	-0,18*	-0,05	-0,33*+	-0,34*+	-0,36*+	-0,08	0,52*++	1,00							



Physical health	0,37*+	0,31*+	0,47*+	0,02	0,34*+	0,34*+	0,43*+	0,29*	-0,07	-0,36* +	1,00						
Psychological health	0,45*+	0,49*+	0,62* ++	0,13*	0,47*+	0,28*	0,57* ++	0,40*+	-0,02	-0,39* +	0,71* ++	1,00					
Intrinsic	-0,30* +	-0,30* +	-0,29*	-0,32* +	-0,42* +	-0,28*	-0,41* +	-0,09*	0,20*	0,29*	-0,36* +	-0,41* +	1,00				
Extrinsic	-0,47* +	-0,37* +	-0,49* +	-0,22*	-0,67* ++	-0,49* +	-0,47* +	-0,38* +	0,10*	0,37*+	-0,41* +	-0,47* +	0,62* ++	1,00			
Affective	-0,49* +	-0,25*	-0,35* +	-0,22*	-0,56* ++	-0,33* +	-0,55* ++	-0,28*	0,20*	0,57* ++	-0,38* +	-0,50* ++	0,45* +	0,59* ++	1,00		
Normative	-0,28*	-0,24*	-0,26*	-0,08	-0,39* +	-0,32* +	-0,45* +	-0,16*	0,22*	0,51* ++	-0,24*	-0,47* +	0,30* +	0,47*+	0,66* ++	1,00	
Continuance	0,24*	0,20*	0,27*	0,14*	0,24*	0,05	0,25*	0,18*	-0,02	-0,13*	0,15*	0,21*	-0,28*	-0,24*	-0,12*	0,18*	1,00

\* Statistically significant  $p \leq 0,01$

+ Correlation is practically significant  $r \geq 0,30$  (medium effect)

++Correlation is practically significant  $r \geq 0,50$  (large effect)

Although most of the correlations between the variables were statistically significant, some were of medium and large practical significance. Table 6 indicated practically significant correlation coefficients of large effect between work relationship and control, work relationship and resources and communication, work-life balance and overload, overload and control, overload and job overall, overload and psychological health, control and resources and communication, control and job overall, control and pay and benefits, control and extrinsic job satisfaction, control and affective organisational commitment, job overall and psychological health, job overall and affective organisational commitment, commitment to the organisation and commitment from the organisation, commitment from the organisation and affective organisational commitment, commitment from the organisation and normative organisational commitment, physical health and psychological health, psychological health and affective organisational commitment, intrinsic job satisfaction and extrinsic job satisfaction, extrinsic job satisfaction and affective organisational commitment, affective organisational commitment and normative organisational commitment.

## **DISCUSSION**

This study investigated occupational stress, job satisfaction and organisational commitment of educators in the Sedibeng West District – Vanderbijlpark as well as the relationship between the constructs.

Work relationship, work-life balance, overload, job security, control, resources and communication, job overall and pay and benefits are distinct components of occupational stress as measured by the ASSET (perceptions of your job) questionnaire. Commitment to the organisation and commitment from the organisation are both components of occupational stress as measured by the ASSET (attitude towards your organisation questionnaire) as well as physical and psychological health as measured by the ASSET (health questionnaire).

Affective, normative and continuance commitment are distinct components of organisational commitment as measured by the Organisational Commitment Questionnaire.

The relationship between occupational stress, job satisfaction and organisational commitment are highlighted in this study. Practically significant correlation coefficients of large effects were found between the scales of the ASSET, MSQ and Organisational Commitment Questionnaire. A large effect was found between commitment from the organisation and affective commitment, as well as commitment from the organisation and normative commitment, thus respondents will stay with their organisation because they want to (affective), and they feel they ought to (normative) continue working for the organisation, confirming the findings of Meyer and Allen (1991) in the literature. Large effects were also found between commitment to the organisation and commitment from the organisation, which means that if the organisation let the employee feel committed, their commitment will also increase. Medium and large effects were respectively found for intrinsic and extrinsic factors of job satisfaction with affective commitment, and medium effects for intrinsic and extrinsic factors with normative commitment, thus there is a correlation between job satisfaction and organisational commitment.

A medium and large effect was found between physical health and psychological health with the scale overload, respondents' physical and psychological health is seriously affected by overload, confirming the fact that work overload is a major stressor in an educators job (Dollard et al., 2003).

## **RECOMMENDATIONS**

### **Recommendations for the teaching profession**

Serious job stressors such as lack of fit between person and environment, classroom, supervision, time pressures, learner discipline, system of promotion, salary, lack of decision-making, role conflict, role ambiguity, role overload, role insufficiency, responsibility for others, contact overload,

attitudes of parents and community, clashes with superiors, redundancy, retrenchments, cutback and educator strikes, to name a few, should systematically be addressed.

More attention should be given to intrinsic and extrinsic factors that cause job dissatisfaction; also attention should be given to the form (affective, continuance, normative) of commitment of the individual to determine in which way the individual is committed.

### **Recommendations for future research**

For future research on occupational stress, job satisfaction and organisational commitment a nationally representative sample of educators is needed.

More research should be conducted about interventions to prevent and/or manage occupational stress, job satisfaction and organisational commitment.

Longitudinal designs should be employed. More research is needed regarding the relationship between occupational stress, job satisfaction and organisational commitment.

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## **CHAPTER 4**

### **CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS**

In this chapter conclusions are drawn regarding the specific objectives of this study. The limitations of the research are discussed, followed by recommendations for the teaching profession and suggestions for future research.

#### **4.1 Conclusions**

The objective of this research was to investigate the relationship between burnout and work engagement, occupational stress, job satisfaction and organisational commitment of educators on senior level in the Sedibeng West District – Vanderbijlpark.

The literature revealed that occupational stress is conceptualised as the adverse emotional and physical reaction employees have to any source of pressure in their environment and that these stress reactions negatively affect personal health and organisation effectiveness. It also appears that occupational stress does not only affect the teacher but the teachers' stress also has a negative impact on the pupils. It seems that occupational stress is caused by stressors that teachers identify as sources of pressure for them. The literature study also revealed that stress can be either positive or negative - whereas positive stress enhances performance, negative stress results in a struggle to cope and performance drops dramatically and leaves the teacher exhausted, in which case stress becomes distress. In the literature it becomes clear that stress leads to burnout when stress diminishes satisfaction and unmet needs or expectations increase. The results obtained by means of correlation coefficients confirmed the relationship between overload and physical health, and overload and psychological health.

**Burnout** is described as a prolonged response to chronic, emotional and interpersonal stressors and is characterised by exhaustion, cynicism and inefficacy. In the literature the exhaustion component predicts stress-related health consequences and refers to feelings of being overextended and drained of one's emotional and physical resources. Emotional exhaustion is due to a combination of personal stressors and job stressors. It is clear from the literature that emotional exhaustion leads to depersonalisation, which is a state of psychologically withdrawing from one's job and this results in a feeling of being unappreciated, ineffective, or inadequate. Therefore, the cynicism component refers to a detached response to various aspects of the job, whereas reduced efficacy indicates feelings of incompetence and lack of production at work. The results obtained by means of structural equation modelling confirmed the three-dimensional factor structure of the MBI-GS.

The literature revealed that **job satisfaction** is not a unitary concept. It states that a person can be relatively satisfied with one aspect of her job and dissatisfied with one or more other aspects. A significant manifestation of the experience of stress at work is low job satisfaction and it also appears in the literature that the level of satisfaction leads to either greater or lesser commitment, which affects effort and eventually affects performance again. The results obtained by means of correlation coefficients confirmed the relationship between job satisfaction and organisational commitment.

In the literature study **engagement** is characterised by energy, involvement and efficacy. It also seems that individuals who are engaged are likely to increase their productivity. In the literature there are six areas that contains the critical factors that either cause the problems of mismatch and burnout or offer the solutions of good fit and engagement. These factors contribute to exhaustion or sustain the energy, cause cynicism and alienation or provide increased involvement and commitment, produce a lack of accomplishment and inadequacy or lead to greater effectiveness and achievement. The results confirmed the three-dimensional factor structure of the UWES by means of structural equation modelling.

The literature revealed that organizational commitment has three distinct forms, namely affective, commitment, continuance commitment and normative commitment. The results confirmed the three-dimensional factor structure of organisational commitment by means of structural equation modelling. The results obtained by means of correlation coefficients confirmed the relationship between organisational commitment and job satisfaction, where the affective and normative factors of organisational commitment and the intrinsic and extrinsic factors of job satisfaction were statistically significant with medium and large effects.

The relationship between burnout and work engagement were highlighted in this research; also the relationship between occupational stress, job satisfaction and organisational commitment.

## **4.2 Limitations of this research**

These findings cannot be generalised, since no urban or rural districts were included in the sample. The schools represented a limited and relatively homogeneous range. Additional research is needed to explore important demographic variables. Therefore a nationally representative sample of teachers is needed.

It also would have been better to have performed the research at a time of year when the researcher would have been able to administer the questionnaires to all the schools during a lunch break or a staff meeting.

An area that was not covered in this research is that of coping styles and personality that should be assessed and may provide important information for assisting teachers to cope with stress in teaching.

Another limitation of this research is that motivation of the educator is not assessed - motivated educators are a crucial component of effective schools and the degree of satisfaction that educators derive from their work will determine the effectiveness with which they fulfil their duties (Weves & Steyn,

2002). Therefore it is not only necessary to evaluate job satisfaction but also whether the educators are motivated by extrinsic or intrinsic factors.

### **4.3 Recommendations**

Next, recommendations for the teaching profession as well as suggestions for future research are made.

#### **Recommendations for the teaching profession**

Many teachers feel that they are ill informed about current changes taking place in education. As one teacher puts it: "We are suffering the most and they don't pass information to the teachers." (Steyn & van Wyk, 1999). These changes have an impact not only on the pupils but more so on the teachers.

The elimination of the stressor is important, however, where the stressor cannot be eliminated easily, coping strategies are suggested.

A focus on the job environment, as well as the person in it, is essential for inter-variations to deal with the variable. According to Maslach , Schaufeli & Leiter (2001), neither changing the setting nor changing the individual is enough - effective change occurs when both develop in an integrated fashion.

Therefore teacher training courses that are related to occupational stress, burnout, job satisfaction, work engagement and organisational commitment are necessary. Teachers must be mentored and assisted in recognising stress and using their skills to handle difficult demands.

Support services must be available for teachers that provide a feeling of security and give the teacher the opportunity to discuss problems and find solutions, also giving more support on all the changes in education. Counselling services by psychologists and/or psychiatrists employed by the Department of Education should assist teachers experiencing excessive stress and with ongoing mental health.

Recognition for good performance, in other words, acknowledgement and praise for achievements, serves as a positive reinforcement for effectiveness. If educators receive acknowledgement for work well done, they will feel positive about themselves and will strive to maintain and even improve. For example, merit awards should be increased (Wevers & Steyn, 2002).

When teachers are treated unfairly and any discrimination actions are taken against them they perceive it as negative and their effectiveness and motivation will reduce. Teachers must be treated fairly. Being treated disrespectfully also has a negative influence on their self-esteem and motivation. Teachers deserve professional respect.

A third area to consider here is in regard to commitment. Many people who are experiencing too much stress in their lives withdraw since they say they do not have the energy to carry on both an active professional life and a social life. There just isn't enough time and energy in a day to do it all, is a complaint we often hear. The major concern when people withdraw is that cutting oneself off from others hinders the individual from receiving the necessary emotional support that is needed as they go through stressful situations. It is essential to have support from significant others during stressful times. It is also important to receive feedback about oneself and the situation in order to resolve conflict and gain insight into new ways of handling the situation. Isolation often leads to discouragement and loneliness if intervention does not take place. Support people and groups who are encouraging are a vital part of handling stressful situations and gaining insight into new or different ways to handle stressful events. We see situations through our past and present perceptions that can often be distorted. Gaining insight from knowledgeable individuals who are supportive is of utmost importance as we begin making necessary changes.

A supportive working climate must be implemented and involve teachers in planning strategies and decision-making. Involving teachers in planning strategies and decision-making is a way to maintain enthusiasm about the job. Teachers need choices, flexibility, opportunity to be innovative and the

opportunity for growth. In-service programs and interactive workshops can also stimulate teachers.

Teachers must also develop effective time-management strategies or time restructuring, to prioritise their tasks as effective as possible.

What is needed today is assistance to educators on the importance of social interaction while at school, as well as learning the necessity of developing support groups that are knowledgeable regarding techniques for giving assistance. Personal and group support is needed to help teachers with their daily problems. They also need to learn how the negative situations affect them personally. Learning that they can change their own perceptions of negative situations will help them feel a sense of power and control over their own difficult school environments.

### **Recommendations for future research**

For future research a nationally representative sample of educators is needed. Future longitudinal designs are needed to expand knowledge in terms of the inclusion of other variables.

More research should be conducted about interventions to prevent and/or manage occupational stress, burnout, job satisfaction, work engagement and organisational commitment.



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