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A Contextual Account for Worker Engagement and Burnout

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(December, 2007)

A Contextual Account for Worker Engagement and Burnout

Carolyn May Timms

PhD Thesis

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DECLARATION ON ETHICS

The research presented and reported in this thesis was conducted within the guidelines for research ethics outlined in the *National Statement on Ethics Conduct in Research Involving Human (*1999*)*, the *Joint NHMRC/AVCC Statement and Guidelines on Research Practice* (1997), the *James Cook University Policy on Experimentation Ethics*. *Standard Practices and Guidelines* (2001), and the *James Cook University Statement and Guidelines on Research Practice* (2001). The proposed research methodology received clearance from the James Cook University Experimentation Ethics Review Committee (Stage 1 approval number H2205; Stage 2 approval number H2207; Stage 3 approval number H2593).

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Statement on the contribution of others including financial and editorial help

Declaration of collaboration with and assistance from others

The design of the research reported in this thesis was developed by me in consultation with my supervisor Dr Deborah Graham. All data was collected and analysed by me, however my supervisors Dr Deborah Graham and Dr David Cottrell played an essential advisory role in my data analysis.

I was assisted by the Queensland Independent Education Union who duplicated 1,000 copies of the survey for the teachers' phase in 2006. Participants were selected in a computer generated random draw of union members and received the surveys with accompanying stamped addressed envelopes in a bulk mail out of union documents. Several other organisations, including a large insurance company, provided a link to the online phase of the survey on their websites.

I received a small grant from James Cook University's Graduate Research School to attend a Structural Equation modelling course run by The Australian Consortium for Social and Political Research Incorporated (ACSPRI) in January 2007. This course provided me with additional expertise in data analysis. The university has assisted my work by providing generic thesis writing skills and advanced statistics workshops at various times throughout my candidature.

My two supervisors have been listed as co-authors on some publications arising from this thesis (Chapter 3, and Appendix B). Their contribution to these works was editorial and advisory in nature.

	10.04.08
Carolyn Timms	Date

Abstract

Worker engagement is an emergent area of organisational psychology and is thought to contribute to worker well being as well as organisational productivity. Previous research has demonstrated that worker burnout has more to do with the workplace environment than the characteristics of individual workers. It was therefore extrapolated that the same would apply to worker engagement. The current research sought to expand previous findings and tease out some commonalities in respondent experiences of engagement and burnout in the workplace.

The workplace context for respondent experience was defined by the Areas of Worklife Survey (AWS) which includes the areas of workload, control, reward, community, fairness and values. It was thought that matches or mismatches on the AWS would provide a sense of respondents' understandings of their psychological contract. Further information about the workplace was provided by responses in regard to the factors of management trustworthiness and procedural justice. A model of projected relationships of the variables predicted that favourable responses on those variables describing work context would be predictive of worker engagement, as defined by the Utrecht Work Engagement Scale (UWES) and unfavourable responses would predict worker burnout, as defined by the Oldenburg Burnout Inventory (OLBI). It was also predicted that management trustworthiness, procedural justice and fairness (AWS) measures would demonstrate a great deal of overlap.

The research plan involved three stages. Firstly, as most previous research had been conducted within larger organisational settings, small group interviews were conducted for people working within small and micro business settings. The second stage of the research included two phases of the same workplace survey, a pen and paper edition that surveyed teachers working in independent schools; and an online version that surveyed people representing 28 different occupational groups. Telephone interviews with 20 respondents to the survey comprised the third stage of the research.

Data analysis found that the interviews from small and micro business fitted AWS parameters well, with participants indicating that their businesses operated within very fine lines in terms of economics and staffing, yet they were rewarded in terms of control, community, and a sense of achievement. The inclusion of small and micro business categories within the subsequent survey instrument found that there were no significant differences between categories of business in regard to any of the study variables.

Statistical analyses of the data included a K-means cluster analysis of a subgroup of the combined survey respondents. This identified five groups of survey respondents based on their levels of response to burnout and engagement. The groups were: The Empowered Group; the Under Pressure Group; The Unengaged Group; The Burnout Experience 1 Group and The Severe Burnout Group. As well as demonstrating distinctive profiles in regard to the burnout and engagement measures, subsequent analyses involving the workplace context variables provided support for the research

model. A three factor confirmatory analysis of the management trustworthiness, procedural justice and fairness (AWS) variables that confirmed these measures covered considerable common ground.

In addition, path analyses found that the AWS variables worked as predictors for engagement and burnout for three of the cluster groups, but other factors must be sought for an explanation of engagement in The Under Pressure Group and the Unengaged Group. In addition, The Unengaged Group, members of which reported ambivalence on the UWES and were not experiencing burnout, was found to consist of two subgroups: one of which reported matches on the AWS variables and the other reported mismatches. Data from participant interviews were also organised within the cluster groups. These supported the previous findings within this research and provided a great deal of insight into particular patterns of participant response, leading to refinement of the research model.

The current research found that AWS variables are important predictors of burnout and engagement and emphasises the substantial role played by management in promoting employee well being.The original contribution made by this research lay in the definition and detailed description of a middle group which represented 30% of respondents. Some of these people reported experiencing disillusionment with their chosen career paths. Others of this group were experiencing some discomfort within their work environments that had not translated into a burnout experience for them. This would indicate that further research might investigate the experiences of those that fall between the two extremes of burnout and engagement in order to better differentiate these variables in the interest of providing organisations with skills for promoting the engagement of employees.

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My last few years as a teacher provided an invaluable encounter with workplace breakdown that happened to coincide with my undergraduate study of organisational psychology and became the inspiration for my choice of subject. While this experience was extremely uncomfortable, it was a time of powerful learning and revelation. My extraordinary luck, after the decision to transfer to James Cook University and embark on the uncertainties that are associated with honours and then PhD, was to score Dr Deborah Graham as my supervisor. I came to her with an idea for my research and she was unreservedly enthusiastic. Deborah has continued to impart support, oomph and academic rigour throughout my candidature, making it a very happy and fulfilling experience.

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somewhat ‘direct’ red ink comments have alerted me to ‘wobbles’ in my written communication. While the comments were not always welcome, they were always appropriate, well spotted, to my benefit, and therefore much appreciated. In addition, participants in all stages of this project generously shared their insights and willingly provided me with a snapshot of their experiences in their workplaces; without them the project would not have been possible.

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Chapter 1

Literature Review

Section 1: Job Burnout and Engagement

1.1 Stress and Burnout in the Workplace

Worker burnout is a protracted response to sustained stresses within the workplace. Stresses that impact on workers may take the form of pressure, role conflict, heavy workload, role ambiguity (Lee & Ashforth, 1996; Leiter & Maslach, 1999), interpersonal conflicts (Maslach, Schaufeli & Leiter, 2001; Ross, 1996), or emotional labour (Ashforth & Humphrey, 1993; Grandy, 2000; Hochschild, 1983). These stressors are long standing and discouraging. Burnout was first described by Freudenberger (1975), who described pressure on people working in human services. This pressure impacted severely on the health and effectiveness of those workers to the extent they felt they were in a 'three way squeeze', at the mercy of competing needs, their own, those of clients seeking help, and administrative demands. Maslach (2003) described the progression of burnout research from its original 'ground up' description as a social problem in the workplace and through a period of being dismissed by academics as lacking in substance or 'pop psychology'. Burnout research went through a subsequent period of development as a construct', and finally to current appreciation of its importance as a keystone of human resources dynamics and to operational efficiency of workplaces.

Initially it was thought that the experience of burnout was restricted to those who work in human service industries. This was because these industries require certain socially desirable emotions to be visibly conveyed during the service encounter,

‘emotional labour’ (Hochschild, 1983; Schaubroeck & Jones, 2000). Positive emotions required to be expressed in the course of one’s work, may be contrary to the actual emotion being experienced by the person, and therefore, could be demonstrated to engender emotional dissonance (Ashforth & Humphrey, 1983; Hochschild, 1983). People working in industries which require emotional labour include counselors (Freudenberger, 1975); teachers (Dorman, 2003); flight attendants (Ashforth & Humphrey, 1993; Hochschild, 1983); hospitality workers (Ross, 1996); and medical personnel (Maslach et al., 2001).

Subsequently it has been established that burnout is also found outside human services in many industries ranging from manufacturing to information technology (Demerouti, Bakker, Nachreiner & Schaufeli, 2001; Maudagalya, Wallace, Daraiseh & Salem, 2006). This has led to a broadening of the burnout construct, to the extent that it is now defined as “a crisis in one’s relationship with work in general, and not necessarily as a crisis in one’s relationship with people at work” (Schaufeli & Buunk, 2002, p.386). Because of this burnout is characterized as an affective well being condition which is work specific, as distinguished from other conditions, such as depression, where affective well being is context free (Schaufeli & Buunk). Therefore, rather than being seen as a phenomenon only of human service work, burnout is now regarded as resulting from failure to achieve balance in psychological contract (Leiter & Maslach, 1999; Rousseau, 1995), between worker and organizational management.

1.2 The Burnout Syndrome

The Maslach Burnout Inventory (MBI) (Maslach, Jackson, Leiter & Schaufeli, 1996) is the measure of burnout most frequently used in research (Schaufeli & Buunk, 2003). It has three versions designed to reflect the diversity of the workforce: (1) the

human services survey (MBI-HSS), (2) the educators' (teachers') survey (MBI-ED), and (3) the general survey (MBI-GS). Each version of the MBI measures three components of the burnout syndrome as described by Maslach et al.: (1) emotional exhaustion, a feeling of having given so much of one's individual inner resources to the job that the capacity for resilience has been fully depleted; (2) cynicism or depersonalization, this is a sense of personal and cognitive distancing from the work place and the people in it; (3) inefficacy, described as an erosion of personal effectiveness, an inability to do one's job, or a lack of personal accomplishment. Other authors, however, have different perspectives on the nature of the burnout syndrome. Demerouti, Bakker, Vardakou and Kantas (2002) contended that burnout was a two factor construct, comprising exhaustion and disengagement (an equivalent distancing construct to cynicism) and others (Kristensen, Borritz, Villadsen & Christensen, 2005) argued for a one factor burnout construct that is comprised of exhaustion only.

1.2.1 Emotional Exhaustion

Emotional exhaustion was described by Maslach and Jackson (1981) as the result of complete depletion of people's emotional resources, rendering them unable to make a psychological contribution to their work. Gaines and Jermier (1983) further testified to emotional exhaustion's personal toll, describing people in reaction to stress and pressure, losing feeling, concern, trust and interest in the recipients of their care. When people are unable to contribute psychologically to their work, they experience frustration, fatigue and irritability. As emotions in the workplace are experienced within a social context, this has powerful effects on the dynamics of people working together (Maslach & Leiter, 1997). While Demerouti et al. (2002) agreed that exhaustion was the primary manifestation of burnout; they saw

it as comprising cognitive and physical elements as well as the emotional aspect. Therefore Demerouti and colleagues' measure of burnout (the Oldenburg Burnout Inventory [OLBI]) has described this important component of the burnout syndrome as 'exhaustion', rather than 'emotional exhaustion', although the constructs are very similar. In 2005, the journal 'Work and Stress' devoted the entire third issue to discussions and empirical research involving the burnout construct. It was agreed by authors in that issue of Work and Stress, that the exhaustion construct is the core element of burnout (Halbesleben & Demerouti, 2005; Schaufeli & Taris, 2005). Kristensen and colleagues (2005) argued for a one factor construct, with their measure of burnout, the Copenhagen Burnout Inventory (CBI), measuring only exhaustion. A one-dimensional approach was also adopted by Bekker, Croon and Bressers (2005) who used only the emotional exhaustion scale of the MBI, thereby following the lead of previous researchers who had also used only this scale (e.g. Albar Marin & Garcia-Ramirez, 2005; Gaines & Jermier, 1983). Furthermore, Winwood and Winefield (2004) who compared the MBI with the CBI (Kristensen et al., 2005) suggested that unlike emotional exhaustion, depersonalisation (cynicism) and professional efficacy were not reliable predictors of burnout.

1.2.2 Cynicism and Disengagement

Maslach and colleagues (2001) described cynicism as an ensuing development to emotional exhaustion, thus suggesting that the burnout syndrome progressed in a sequential manner. Abraham (2000) and Albrecht (2002) however, saw cynicism as an emotional reaction to workers' doubts of organizational integrity. Disillusionment and distrust are incorporated within the cynicism construct, and are manifested in negative affect that is directed towards the employing organization. Sometimes cynicism includes the use of sarcasm, as humour, in the expression of strong

criticism (Dean, Brandes & Dharwadkar, 1998). Demerouti et al. (2002), who generated an alternative measure of burnout to the MBI, maintained a separate 'distancing' construct, but called it 'disengagement'. Whereas cynicism (Maslach et al., 2001) is people focused (service recipients, management personnel), disengagement is work focused, individuals not only experience negative feelings towards people associated with work, but also towards the work itself. Disengaged workers, therefore, question the meaning of their jobs and whether it is worthwhile continuing in them. Consequently, according to Demerouti et al. (2002), cynicism is a component of disengagement, which is a more encompassing construct.

1.2.3 Inefficacy or Lack of Personal Accomplishment

Inefficacy is described as a wearing down of personal effectiveness, an inability to do one's job, and a feeling of lack of personal accomplishment (Maslach et al. 2001). In the workplace, inefficacy is associated with a lack of resources; they may be personal resources such as ability or self confidence, or external resources such as the necessary equipment to do one's job well. Work colleagues who possess complementary talents or training programs provided by the organisation, can be seen as resources. While Maslach and colleagues (Leiter & Maslach, 1999; 2004; 2006; Maslach, 2003; Maslach et al., 2001) continue to place the inefficacy construct within the burnout syndrome, other researchers (Demerouti et al., 2002; Halbesleben & Demerouti, 2005; Kristensen et al., 2005; Shirom, 2005) argue that decreased professional accomplishment (inefficacy) develops independently of exhaustion and cynicism/disengagement. Because of this professional inefficacy does not appear in other measures of burnout (Demerouti et al., 2002; Kristensen et al., 2005).

1.3 Determining the Presence of Burnout

Use of the MBI (Maslach et al., 1996) in many studies has firmly established its discriminant validity (Maslach et al., 2001; Schaufeli & Bakker, 2004). The more recently developed OLBI which, unlike the MBI, incorporates positively and negatively worded items within the measure has also demonstrated good convergent and discriminant properties (Demerouti et al., 2002; Halbesleben & Demerouti, 2005). Burnout is distinguished from other psychological constructs like anxiety or depression, in that it is clearly related to a person's occupation and is situation specific. Unlike anxiety or depression, it does not appear in the Diagnostic and Statistical Manual (DSM-IV-TR) (American Psychiatric Association, 2000) as psychopathology. This is because burnout is a work phenomenon and appears in individuals who have no previous history of mental illness.

A related condition called workplace neurasthenia (sometimes called 'clinical burnout') is described in the World Health Organisation's (WHO) comprehensive catalogue of human illnesses and conditions "International Statistical Classification of Diseases and Related Health Problems 10th edition' (ICD-10) (WHO, 2003). Workplace neurasthenia is held to be the culmination or end stage of the burnout progression (Roelofs, Verbraak, Keijsers, deBruin, & Schmidt, 2004; Schaufeli, Bakker, Hoogduin, Schaap, & Kladler, 2001). Workplace neurasthenia has demonstrated close psychometric relationships with burnout as measured by the MBI using confirmatory factor analysis, correlations and Cronbach's alpha. In particular, the emotional exhaustion subscale of the MBI is highly associated with a diagnosis of clinical burnout or workplace neurasthenia (Roelofs et al., 2004).

1.3.1 Burnout as a Robust Construct

Over the years a large body of literature has built up which documents the burnout syndrome along with numerous correlates within the workplace (Lee & Ashforth,

1996; Maslach et al., 2001; Schaufeli, 2000; Schaufeli & Buunk, 2002). This literature has served to validate the burnout construct. However much of the earlier literature has been repetitive in that a multitude of stressors were identified (see Dorman, 2003; Friedman, 2000; Schaufeli, 2000; Tutteman & Punch, 1992); and unsystematic in that individual approaches or interventions were advanced before consideration of organisational practices which may well contribute to the development of burnout were considered (Cuthell, 2004; Dworkin, 2001; Leiter & Maslach, 1999; Vezina, Bourbonnais, Brisson & Trudel, 2004).

1.3.2 Responses to Burnout: Individual or Organisational?

Dworkin (2001), a sociologist, was highly critical of what he considered to be psychology's emphasis on coping with burnout, by the use of a variety of clinical solutions. He suggested that such a strategy blamed burned out individuals for their condition, thereby increasing their vulnerability to systemic exploitation.

Leiter and Maslach (1999; 2004; 2006) and Maslach et al. (2001) had, however, already suggested that the focus of burnout research should shift from individuals suffering burnout towards relationships established in the workplace and hence, organisational contributions to the development of burnout. This theme was clarified by Schaufeli and Buunk (2002) who described the development of burnout as construct worthy of empirical research. The construct has therefore progressed through the development of what Bakker and Demerouti (2007) called 'laundry lists' of correlates and academic research has eventually developed a more holistic and organisational focused approach. Whereas the more popular 'mass media' clinically oriented approach, has advanced many interventions, workshops and educational materials. While this practical approach is understandable, in view of the threat burnout poses to individual mental and physical health and to industrial productivity;

it has served to confuse the issue in regard to providing a clear understanding of the construct and the need for a solid theoretical base. Therefore, Dworkin's strong criticism of psychology was misdirected. Organisational psychologists, such as Maslach, Leiter, Schaufeli and Bakker, were already engaged in the development of theory which presented burnout within the context of organisations (Leiter & Maslach, 1999; Maslach & Leiter, 1997; Maslach et al., 2001; Schaufeli, 2000; Schaufeli & Bakker, 2003).

1.3.3 Is there a Predictable Pattern in the Development of Burnout?

Attempts to establish a sequential relationship between emotional exhaustion, cynicism and inefficacy have failed to establish a clear pattern of burnout progression (Dorman, 2003; Friedman, 2000; Hughes, 2001; Maslach et al., 2001). This is probably due to the dynamic nature of relationships within the workplace and could perhaps indicate that burnout itself is a dynamic process which is not easily represented in a clear progression pattern that applies to all individuals (Ashforth & Lee, 1997; Cordes & Dougherty, 1993).

Despite high correlations between the components of burnout there is little support for a unified construct which does not differentiate between the components. The reason for this is that emotional exhaustion, cynicism and inefficacy behave differently when correlated with other workplace variables, such as job demands, job resources, job satisfaction, staff turnover and absenteeism. Therefore it was suggested by Cordes and Dougherty (1993) that any attempt to sum the components of burnout and thereby produce an overall measure would result in loss of valuable information. An example of this is found in the research of Demerouti et al. (2002) where lack of job resources were indicative of disengagement but not necessarily exhaustion, whereas high job demands indicated exhaustion, but not necessarily

disengagement. It was therefore predicted by Demerouti and colleagues that work situations which manifest both high demands and limited resources would be predictive of the presence of both exhaustion and disengagement.

1.4 Work Engagement

Seligman's work (Seligman & Cskszentmihalyi, 2000; Seligman, Steen, Park & Peterson, 2005) advanced a framework for a science of 'positive psychology, as a means of understanding the factors that allow "individuals, communities and societies to flourish" (Seligman & Czkszentmihalyi, p. 5). Following this lead Schaufeli, Bakker and Salanova (2006) suggested that the scientific study of worker engagement contributes to performance improvement within organizations by providing elucidation on how humans can achieve optimum functioning within the workplace. Maslach and Leiter (1997) referred to burnout as an 'erosion of engagement' (p. 24). They observed that when people begin at a particular workplace they are not burned out, however, when burnout develops; "energy turns into exhaustion, involvement turns into cynicism and efficacy becomes inefficacy" (p.24) (see also Stevens, 1993). Therefore, according to Maslach et al. (2001), the MBI can be used to measure engagement and burnout. Schaufeli and Bakker's (2004) construction of engagement however, indicated that it is negatively correlated with burnout, rather than the opposite pole on a continuum. Hence, according to Schaufeli and Bakker there may actually be two related processes: (1) burnout, which may well have a negative influence on health, and (2) engagement, which is an inspiring process that is motivated by an abundance of job resources and in which the individual becomes absorbed (engaged) in their work. Engagement, as defined by Schaufeli and Bakker, comprises three dimensions: dedication, vigour and absorption. Dedication is strong involvement in one's work and a feeling that the

work is significant and challenging. Vigour is characterized by high levels of energy, mental resilience and willingness to expend energy in one's work. Finally, absorption is characterized by a sense of full concentration in work and of being fully occupied with it to the point that time will pass without one noticing it (Schaufeli & Bakker). Absorption was developed from Csikszentmihalyi's (Csikszentmihalyi & Hunter, 2003) concept of 'flow'. Flow is a more complex concept and includes: focus, loss of self-consciousness, balance, control, and intrinsic reward as well as absorption (see also Schaufeli & Bakker, 2004).

An alternate measure of engagement is that developed recently by a team at Macquarie University (Langford, 2006) as a component of the Voice Climate Survey (VCS).The construct, called 'passion' in the VCS, is said to mirror the engagement construct (Langford, Parkes &Metcalf, 2006) and uses three lower order factors of 'organisational commitment' (loyalty, pride and emotional attachment), 'job satisfaction' (personal accomplishment), and 'intention to stay' (employees' vision of a future working in the organisation). Langford et al. (2006) found direct relationships between employee participation (involvement, reward, recognition, performance appraisal and career opportunities) and passion, but not with people (motivation and initiative, talent and teamwork) or peace (wellness and work/life balance) and passion. Basile and Langford (2007) found the passion construct was stable in comparison studies performed in China, Australia and the USA. While Australia and the USA have cultural parallels, the same is not the case for Australia and China, or the USA and China (Basile & Langford). As the passion construct was very recently developed, it was not known to the researcher at the time of data collection.

1.5 Burnout and Engagement: Opposite ends of one construct or negatively correlated?

The MBI measures scores on a continuum from high to low, with high scores indicating the presence of burnout on the three scales of emotional exhaustion, cynicism and inefficacy. As mentioned in the previous section, this led to speculation that the instrument measured engagement as well as burnout with burnout being described as an 'erosion of engagement' (Maslach et al., 2001). According to Maslach et al., what was originally seen as important, meaningful and challenging work loses its ability to inspire, and consequently becomes disagreeable, thankless and meaningless. In their model, Maslach and colleagues described energy becoming exhaustion, involvement becoming cynicism and efficacy becoming ineffectiveness. By contrast engagement was described as comprising energy, absorption and efficacy, the reverse of burnout's three dimensions of emotional exhaustion, inefficacy and cynicism. This view of burnout as the opposite of engagement (Maslach et al.) was supported to some extent by Gonzalez-Roma, Schaufeli, Bakker and Lloret (2006) who, using the MBI (Maslach et al., 1996) and the Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker, 2003), identified two constructs, identification and energy which were bipolar in character. These two constructs were exhaustion-vigour and cynicism- dedication. However, alternative findings reported by Schaufeli, Taris and van Rhenen (2007) indicate that the MBI and UWES typically demonstrate moderate correlations ranging from r=-.30 to r=-.65, indicating more support for predictable negative correlations between the two constructs.

Section 2. Psycho-social contexts in the development of burnout and engagement:

1.6 Theoretical perspectives.

In the time since the mid seventies when burnout first became the subject of empirical research, many studies have identified numerous correlates (see, Lee & Ashforth, 1996). However, probably because of the original 'groundup' nature (Maslach, 2003; Schaufeli & Buunk, 2003) of the origins of burnout research, the abundance of correlational studies did not provide a substantial theoretical basis for their interpretation. Consequently different groups of researchers have advanced different theories about the contexts in which burnout and engagement develop within the workplace.

1.6.1 The Job Demand-Control model

The job demand-control (JD-C) model explaining the development of stress in the workplace was developed by Karasek (1979). It predicted that mental strain in the workplace was not necessarily prefaced by high job demands per se, but by the amount of discretion afforded the individual worker in making decisions that affected them (control) in regard to coping with high job demands. Therefore jobs with high demands, but that allowed the worker latitude with respect to decisions that affected them would not result in mental strain, conversely, those with high demands and no autonomy would result in mental strain. A further extension of the model was the concept of 'active jobs', those that were characterised by both high demands and high control, which according to Karasek and Theorell (1990) led to well-being, learning and personal growth. While this model has been useful in predicting the development of mental strain (which includes burnout), it has, according to Bakker

and Demerouti (2007) been less consistent in predicting positive states, for example, worker well being and engagement.

1.6.2 The Effort- Reward imbalance model

The Effort-Reward imbalance model (ERI) (Siegrist, 1996) emphasised the reward area of work rather than that of control. Central to this model is the assumption that job strain develops from an imbalance between effort (defined as the extrinsic job demands and internal motivation to fulfill the demands) and rewards (for example, remuneration, recognition and career advancement opportunities). Two other assumptions within the model are (1) the over commitment hypothesis, that a high level of over commitment (need for control and approval) on the part of employees can lead to poor mental health outcomes and (2) the interaction hypothesis, that employees reporting high levels of ERI and over commitment face a compounded risk of poor health outcomes. This model parallels earlier equity theories (Adams & Rosenbaum ,1962; Walster, Bercheid &Walster, 1973) that reduced equity in all relationships (including those of the workplace) to simple input/output formulas. The model, while simple, is elegant in that it captures salient features regarding the imbalance between effort and reward. This imbalance was found to be a serious risk factor for burnout as well as more serious conditions such as hypertension, heart disease and depression (van Vegchel, de Jonge, Bosma & Schaufeli, 2005).

Criticism of both the JD-C model and the ERI model centres around observations that they may not be generalizable across work domains; for example, both models operationalise job demands as involving physical effort and/or the pressures of time constraints without recognising that there may well be other types of demands on employees, such as emotional labour requirements (Lewig & Dollard, 2003), or demands for sustained mental attention (Bakker & Demerouti, 2007). This means

that the effectiveness of both models is limited to those work domains that include physical demands and time pressures in their job demands. Other criticisms of the models stem from the fact that while both are compact, they also exclude many variables that characterise complex modern work environments (Bakker & Demerouti, 2007), thereby further limiting their generalisability.

1.6.3 The Job Demand-Resources model

The job demand-resources model (JD-R) developed from a need to provide a more comprehensive work specific environmental theory explaining antecedents of both burnout and engagement. The model relies on the assumption that workplaces have site specific or occupation specific risk factors associated with job stress, and that these factors can be classified as demands or resources (Bakker & Demerouti, 2007; Bakker, Demerouti & Verbeke, 2004). Job demands may require physical, psychological, social or organisational effort or skills from workers. Examples of job demands include unpleasant work environments and interactions with clients that are emotionally demanding. Job resources on the other hand are physical, psychological, social or organisational aspects of the job that: enable achievement of work goals, reduce demands or the psychological and physical costs of those demands, and motivate workers in personal growth, and ongoing education.

The JD-R model has some antecedents in the literature, for example it is consistent with Hackman and Oldham's (1975) theory of job characteristics that accentuates the importance of the motivational potential of job resources like autonomy and feedback. It is also consistent with Hobfoll's (2001) conservation of resources (COR) theory that suggests human motivation is naturally calibrated towards the sustenance and preservation of resources. Therefore, according to Bakker and Demerouti (2007), workers value job resources either in their own right,

or because they constitute the means by which other, more valued, resources may be obtained.

The JD-R model is characterised by two hypotheses that predict main effects: The first is that high demands (for example, work overload, and continuing emotional labour), deplete workers' own emotional, physical and mental resources and are associated with the development of worker burnout and other stress related conditions. The second hypothesis is that job resources are inspirational and that their provision provides either intrinsic (in the case of employee growth and learning) or extrinsic (in the case of supportive colleagues and appropriate feedback) motivation to workers. This is consistent with the theory of self determination (Deci & Ryan, 1987; Ryan & Deci, 2001).

The JD-R model also predicts four interaction effects: (1) high demands associated with low resources will produce worker burnout, (2) high demands associated with an abundance of job resources will produce worker engagement (3) low demands associated with low resources will produce worker apathy and (4) low demands associated with high resources will produce worker boredom (Bakker, 2007). It would seem that most research using the JD-R model focuses on the first two interaction effects; burnout and engagement. These have found support in a number of studies (for example, Biggs & Brough, 2007; Hayward & Tuckey, 2007; Lewig & Dollard, 2003).

The JD-R model provides a valuable diagnostic tool for organisations in that the job is defined in terms of specific tasks and demands, and what employees believe is needed (resources) to fulfill these tasks. It therefore provides organisations with a 'snapshot' of what is going on in their organisations at a particular time, and allows them to take remedial action if necessary. However it is noted that the model does

not address the obligations of management to manifest consistent, ethical and trustworthy behaviour (Mayer & Davis, 1999) and decision making (Kim & Mauborgne, 1998, 2005). In addition, while employees within organisations are asked to nominate the resources necessary for them to complete their work, the psychological contract (Rousseau, 1995) is not considered within the model. Miller (2001), in his discussion of the psychological contract's role within a just workplace, observed that "people may not always be able to articulate what their entitlements are in any particular relationship, but they know when a sense of rightness has been violated or when someone has "crossed the line" (p.532). Therefore it is posited that while the JD-R model provides essential site specific feedback to organisations and may well have considerable applied utility for that reason, there is a possibility that the model may overlook some primary psycho-social features of the work environment.

1.6.4 The Six Areas of worklife model.

The Six Areas of Worklife model was proposed by Leiter and Maslach (1999) for the purpose of providing a framework for future study of the antecedent conditions that could lead to the development of worker burnout or engagement. Within this framework, Leiter and Maslach sought to integrate the sizeable body of research that had already been conducted into six broad areas of worklife, and provide adequate definition for distinctions to be made between these areas even though it was acknowledged that they each impacted on the others. The six areas identified by Leiter and Maslach (1999) were workload, control, reward, community, values and fairness. It was further suggested by Leiter and Maslach that in an ideal world, employees and employers would arrive at a mutually acceptable balance on these six

areas through unambiguous negotiation of their reciprocal obligations, or ‘psychological contract’ (Rousseau, 1995; Rousseau & Tijoriwala, 1998).

According to Leiter and Maslach (1999), mismatches happen when important issues are undecided or when something happens to alter the working relationship, thereby rendering it unacceptable to the employee. Hence the burnout/engagement focus shifts from the employee to the relationship the employee has with the organisation. This approach is consistent with: (1) equity theory (Adams & Rosenbaum, 1962; Bakker, Schaufeli, Sixma, Bosveld & van Dierendonck, 2000; Walster, Berscheid & Walster, 1973); (2) procedural justice theory (Colquitt, Conlon, Wesson, Porter & Ng, 2001; Judge & Colquitt, 2004; Kim & Mauborgene, 1998); (3) management trustworthiness theory (Mayer & Davis, 1999; Mayer, Davis & Schoorman, 1995; Whitener, Brodt, Korsgaard & Werner, 1998); (4) the theory of psychological contract (Rousseau, 1995); (5) social exchange theory (Blau, 1964); (6) self determination theory (Deci & Ryan, 1987; Ryan & Deci, 2000) and (7) the model of role breadth self efficacy (Axtell & Parker, 2003). Furthermore, human factors accident research into the processes of organisational hierarchies which contribute to human error (Reason, 1990a, 1990b, 2000), can inform dialogue on the six areas of worklife and their relationship to engagement and/or burnout with work. The current review will incorporate these theoretical perspectives in the following expansions of five of Leiter and Maslach’s (1999, 2004, 2006) ‘six areas of worklife’. For purposes of parsimony, one area of worklife, ‘fairness’, which has obvious parallels with procedural justice, will be discussed later in section 3 of the current chapter.

1.6.4.1 Workload

According to Leiter and Maslach (1999) workload, defined as the amount of work to be done in a given time, has a foreseeable and coherent relationship with burnout, particularly with emotional exhaustion. One possible workload issue is work intensification, of which the field of education provides a very useful example. Research suggests that teachers in many countries have become overloaded by external agendas which intensify the quantity of mandated work with increased accountability measures. This has been demonstrated in education systems in Canada (Fink 2003; Hargreaves, 1998, 1999; Hargreaves & Fink, 2004), United States of America (USA) (Tye & O'Brien, 2002) and Australia (Dinham & Scott, 2000; Gardner & Williamson, 2006; Howe, 2005; Scott & Dinham, 2003; Timms, Graham & Caltabiano, 2006, 2007). Teachers who experience this process invariably show a compromised capacity for sustaining the emotional nature of work. Teachers' work, because of the requirements to sustain consistent level performance in day to day interactions with children (Hargreaves, 1998), has the capacity to exert a huge emotional toll on people. Timms and colleagues (2007) presented qualitative evidence from teachers, suggesting that work intensification may well account for a considerable amount of job stress. Seventy three percent of their participants (n=90) commented that government reforms to educational content and teaching practice were unnecessary, inappropriate, and generated enormous amounts of paperwork additional to the teaching load and preparation/marking. These extra tasks could not be completed during the school day and therefore had to be done in the teacher's own time.

This is consistent with the findings of Fink (2003) who described a Canadian school administration and staff as overwhelmed and isolated while they attempted to comply with reforms imposed on them by government legislation. Inevitable

consequences of this were reduced personal passion and creativity on the part of teachers, as evidenced in their reluctance and refusal to engage in extra- curricular activities. In addition, pressure on school management to ensure compliance was in place contributed to a directive and coercive leadership style, further undermining the teachers' desire to give 'of themselves' to their work. This last point was supported by Scott, Stone and Dinham (2001) when they described a 'policing mentality' on the part of school leadership in many countries. This sort of leadership had the potential to lead to role conflict for administrators and consequent resentment and cynicism on the part of employees.

This same scenario may unfold in other industries as governments legislate industry regulations, and increase 'paper trails' in the interest of achieving more accountability. Glendon and Stanton (2000), in their review of organizational safety culture literature, saw work pressure in organisations, defined as the extent to which employees experienced a burden to ensure work was completed and the time allocated to complete it, as a continuing problem for organizational safety interests. "There is a widespread perception that there is inadequate time for tasks, insuffcient staff numbers and that work pressures are generally high" (Glendon & Stanton, 2000, p.205).

Managers in any industry which is subject to government legislation may at times find themselves implementing work design processes, legislation and decisions into which they have had no input and who consequently have little idea of the reasons behind those decisions. Furthermore, additional decisions which impact on workers' workload and pressure can be made by company hierarchies who are positioned at 'arms length' from the impact of their decisions on others (Wilhelm, Kovess, Rio-Sheidel & Finch, 2004). This can contribute to a sense of

meaninglessness, imposition and lack of ownership, which in turn undermines effectiveness (Harris, 2001) and which leads inevitably to emotional exhaustion (Maslach & Leiter, 1997).

The impact of heavy workload on the health of an employee was further clarified by the work of Sonnentag and colleagues (Sonnentag, 2005, Sonnentag & Kruel, 2006; Sonnentag & Zijlstra, 2006). When employees are put in the position where work has to be taken home in order to achieve completion, opportunities for restorative detachment from work are not possible and thereby the individual's emotional and physical reserves are depleted. Sonnentag and Zijlstra (2006) warned "continuous depletion of resources will lead to negative load effects (e.g. fatigue) and, ultimately, in the absence of recovery, to exhaustion, losses of function, and physical and mental impairment" (p.330). Consequently, associations have been drawn between burnout and subsequent development of cardiovascular disease, stroke (Melamed, Shirome, Toker, Berliner & Shapira, 2006) and depression (Smith, Roman, Dollard, Winefield & Siegrist, 2005).

Central to understanding the burnout syndrome is identification of a mismatch between the expectations of the worker and the reality of experience (Leiter & Maslach, 1999; Maslach et al., 2001). Indeed Leiter and Maslach (1999) stressed that role conflict (preferred roles are incongruent with important characteristics of the job) overlaps with both workload and control. It is further suggested that role conflict, in all probability, also overlaps with values. Therefore it would constitute a threefold mismatch leading inevitably to emotional exhaustion. However there is substantial evidence from research based on the JD-R model that workload impacts and their potential to affect workers' mental health, can be alleviated by job resources in the form of social support, recognition of skills and contribution, and job

control (Bakker, Demerouti & Euwma, 2005; Demerouti et al., 2002). Howard and Johnson (2004) also provided evidence that the support of management was instrumental in providing teachers, working in schools located in low socio economic neighbourhoods where the behaviour of children (and sometimes their parents) was problematic, with resilience to deal with the challenges of their lives and resist the development of stress related conditions such as burnout.

The present discussion has focused largely upon the impact of work overload on the mental health of workers, however work 'under-load' can also impact severely on workers in "psychological, mental, intellectual or psychosomatic ways" (Agassi, 1991, p. 197). Agassi warned that psychosomatic damage (impacting on physical health) may well be permanent. Agassi focussed on the effects of work which was characterised by monotony, combined with the demand for a very high pace not under the workers' control (see also Karasek & Theorell, 1990). According to Schabracq and Cooper (2000) this sort of under-work is impoverished because it does not provide its workers with challenge, opportunities and rewards. In addition, employees in this environment are particularly vulnerable to workplace dysfunction and/or restructuring because of their lack of autonomy within the workplace.

1.6.4.2 Control

According to Leiter and Maslach (1999) a mismatch in control sets workers in a place where they are compelled to act in a manner that is discordant with their own values and principles, consequently workers lack autonomy. Within work settings, control issues involve the level at which individuals are able to make decisions as to how tasks or goals are to be accomplished (Sparks, Faragher & Cooper, 2001). Thus in the example of education posed in the previous section on workload, the extra paperwork obligations interfere with preparation, marking or voluntary

extracurricular activities undertaken by teachers. This may impact on peoples' sense of calling to the teaching career and commitment to students and their families. Tye and O'Brien (2002), in a study of 114 former teachers, found the decision of these people to leave teaching had its foundation in an unbearable work environment that required increased paperwork and accountability. Work load was increased, but not its meaningfulness. The extra tasks consumed large amounts of time and teachers were alienated from meaningful decision making processes. The curriculum was mandated from above by government legislation and its relevance to students in their classrooms was questioned by the teachers (see also Fink, 2003; Gardner & Williamson, 2006; Hargraves & Fink, 2004; McCoy, 2003; Olson, 2004).

Reason (1990a, 1990b, 2000) demonstrated the potential of control issues to impact on safety in hazardous industries such as aviation. Decisions made at 'arms length' by management or personnel in different branches of the organisation had the potential to affect other individuals working in areas where full and sustained attention was required for the safety of the public. Reason's 'Swiss Cheese' model is widely used within essential industries to explain the potential within organisations for 'latent' failure (outdated or unnecessary procedures, sanctions, insufficient training, economic 'streamlining', or other inadequacies within the system) to interact with 'active' failure (conditions of the day, such as boredom, distraction, fatigue, illness) to cause disaster. To explain Reason's model further, a mistake on the part of an air craft mechanic or engineer may be directly attributable to fatigue due to shift rosters which do not factor human circadian rhythm realities into consideration. Sanctions applied to individuals who do not get through the work in a timely manner, may also be implicated. This may be due to lack of knowledge and poor training on the part of the person who prepares the roster (Fogarty, 2004;

Fogarty, Saunders & Collyer, 1999; 2001). The ultimate responsibility therefore, lies in management decisions which may be driven by economic (rather than human) considerations. Fogarty and colleagues demonstrated clear links between organisational culture and morale, worker mental health and a safety environment. Glendon and Waring (1997) emphasized the necessity for organizations to develop a strategic approach to manage such risks to organizational viability.

An additional example of a workload obligation which impacts on control, thereby leading to emotional exhaustion, is found in human services industries. Hochschild (1983) argued that attempts to conform to expected emotional displays (e.g. ‘service with a smile’) not actually felt by the person during the service interaction, could cause long term psychological damage when the individual experienced little control. At the very least, the individual suffered from the feeling of being false and hypocritical which is associated with emotional dissonance. Some examples of this may include having to smile when irritated, or act calm when agitated, thereby involving the expression of emotions which are incongruent with the felt emotions of the individual. Viewed through the lens of social exchange theory (Blau, 1964), equity theory (Adams & Rosenbaum, 1962; Bakker et al., 2000; Walster, Berscheid & Walster, 1973) and the JD-R model (Lewig & Dollard, 2003) effort involved in sustaining incongruent emotions or engaging in tasks which seem meaningless would have to be subject to reciprocity within the workplace. Therefore workers experiencing workplace requirements which countermand their own values or feelings would need to feel that this was worthwhile in terms of appreciation, recognition and reward from management; and to the ultimate success of the organisation.

Ashforth and Saks (2000) saw control as a combination of job autonomy and worker ability to participate in decisions which affect them. Control provides individual workers with the freedom (within the task domain) of determining appropriate work methods, schedules and performance goals for themselves. Unfortunately such an approach can cause anxiety for those managers who have difficulty in relinquishing control (Forrester, 2000), however it provides for a more proactive workforce who enjoy an expanded role within the workplace (Axtell & Parker, 2003). Axtell and Parker challenged organisations to equip employees with an appropriate range of skills, through training. This would lead to an increase in employees' confidence to extend their own roles within the workplace: Axtell and Parker called this expansion of role 'Role Breadth Self Efficacy'.

While control issues undoubtedly overlap those of fairness, they are specific to workers' autonomy, and to the capacity to exercise effective regulation in their work. From the employer's point of view, this consideration is desirable because individuals then behave in a manner that goes beyond outcome driven self interest (Kim & Mauborgne, 1998). From the point of view of the employee, satisfactory control within the workplace allows for free flowing of ideas and creativity consistent with absorption (Schaufeli & Bakker, 2003) and therefore enhanced outcomes for organisations.

As mentioned in the previous section, role conflict overlaps workload and control. Role conflict often reflects a hierarchy with levels that do not indicate synchrony of insight, values or expectations. Individuals caught in the consequent disorder are unable to exercise control in their work. Opposing demands from different levels of the hierarchy get in the way as workers attempt to set priorities to enable them to perform their work in the best way possible (Leiter & Maslach, 1999;

Maslach et al., 2001). Furthermore, multiple authorities such as governments, senior management and supervisors can create for the worker a confused ‘mishmash’ or conflicting signals which strip away workers’ latitude to structure their working lives. Stansfeld, Fuhrer, Shipley and Marmot (1999) found that work demands that included work pace and conflicting demands were associated with psychiatric disorder, whereas decision authority and support at work protect against psychiatric morbidity.

1.6.4.3 Reward

According to Leiter and Maslach (1999), mismatches in reward increase workers’ vulnerability to burnout. Strategic management decisions are frequently based on perceptions of individual concerns that employees seek to maximise their self interest, such as power, economic or rational advantage. Thus economic logic, which pervades many workplaces, perceives that workers focus on outcomes that strengthen their advantage (Rumelt, Schendel & Treece, 1991). While economic logic explains some part of worker incentive, it does not explain that side of human behaviour that should be of tremendous interest to employers, in that it is associated with trust, commitment and loyalty (Kim & Mauborgne, 1998).

Paid work provides a great deal more than income to support living standards. In modern society work provides many psychological needs, such as a sense of personal worth and individual well being (Gill, 1999; May, Gilson & Harter, 2004). Indeed, psychologists would argue that work occupies a place of central importance to individual well being and, for the vast majority of people in advanced industrial societies, provides a major avenue for redress of psychological needs (Gill, 1999). The effort-reward imbalance (ERI) model suggests further, that a person’s occupation is the possible conduit for the satisfaction of vital psychological and

emotional needs (Smith et al., 2005). Thus worker high effort at work with perceived low reward can be directly related to the development of anger and simmering resentment; and consequently to poor mental and physical health outcomes, related to chronic anger. These include cardiovascular disease, burnout and depression (Kuper, Singh-Manoux, Siegrist & Marmot, 2002). Smith and colleagues suggested that this relationship is especially important for workers who have a low yearly salary. By contrast, those workers who enjoyed higher remuneration were more likely to experience fulfilling social affiliations with people from their circle of work colleagues (Hodson, 2004). Leiter and Maslach (1999, 2004) and Bakker and Demerouti (2007) held that it is unlikely that workers view rewards in economic terms only. Smith and colleagues commented that common management perceptions that equate reward with economics are too simplistic, psychological benefits such as esteem; career opportunities and job security also provide reward in the work arena.

De Voe and Invengar (2004) found that North American managers of a large global entity were more likely to attribute employee motivation to extrinsic (economic) factors than to intrinsic motivation. Consequences of this Western negative bias, not seen in the Latin American or Asian division of the organisation, included influences on management perceptions when doing performance appraisals for workers. Managers in North American branches tended to assume that employees were motivated solely by extrinsic rewards such as pay and did not find their work inherently interesting. This was seen by employees as a misjudgement and it contributed to employees' dissatisfaction with their management and lack of trust. Farnham (1990) suggested a growing 'perception gap' between what employees really wanted and what managements thought they wanted. Managements tended to think that workers were motivated solely by money

(extrinsic motivation) and may well have provided intricate wage bonuses or other merit structures based on economic rewards to encourage workers to work harder. Farnham suggested that workers expected to satisfy more psychological needs (intrinsic motivation) within their place of employment.

May et al. (2004) asserted that for human beings to thrive, they must be able to immerse themselves in their work. This theme echoes that of Viktor Frankl (1969, p. 51) who suggested that "being human profoundly means being engaged and entangled in a situation". However in spite of a yearning for meaningfulness and intrinsic motivation, that would cause work to be absorbing and pleasant, there is no escaping the reality that most people are employed to perform essentially boring tasks of little intrinsic interest to the individual. Self-determination theory would suggest that rewards are not dichotomous (extrinsic versus intrinsic) but rather a continuum (Deci & Ryan, 1987). This requires discernment on the part of management and indicates that supportive and facilitative leadership in the workplace can provide supports for the development of competence, autonomy and relatedness. This management support or benevolence (Mayer & Davis, 1999) can provide an environment that is in accord with the development of worker psychological well-being (Ryan & Deci, 2000).

1.6.4.4 Community

Leiter and Maslach (1999, 2004) identified community as an aspect of worklife that could contribute to burnout. This is because social support from supervisors, management and co-workers provides a 'buffering' role in the relationship between work demands and burnout. Sennet (1998) held that a place became a community when people used the pronoun 'we'. Use of 'we' in regard to employment denotes affiliation and tenure; and sits at the heart of the theory of psychological contract, or

reciprocal obligations between employer and employee (Rousseau, 1995; Rousseau &Tijoriwala, 1998). Regardless of whether a contract is formalised in a written document or simply an understanding between individuals, it is nevertheless a component of any relationship between people. In the case of employers and employees, a psychological contract involves employer expectations of employees, such as effort, loyalty and commitment; and employee expectations that fair treatment, just rewards and consideration will characterise the conduct of employers.

Siegrist (2002) suggested that work provided individuals with a core social identity beyond the family, hence training for a job and achievement of occupational status played an important role in individual development. Friedman (2000) described cognitive and emotional responses in new teachers as they reconciled their expectations as students to the realities of experience as teachers. The cognitive pathway to burnout included 'unaccomplishment', a challenge to efficacy; whereas the emotional pathway to burnout included work overload, leading to emotional exhaustion. Key to resolution of this experience, which Friedman described in terms of an 'existential crisis', was the support of the school community in the form of an encouraging principal, clear and flexible school goals, communication and collegial and social support.

While Leiter and Maslach (1999, 2004) did not mention organisational politics within the framework of community, literature on this common aspect of worklife could well inform dialogue on burnout and engagement. Vigoda (2002) found that organisational politics, which is defined as behaviour intentionally calculated to attain social goals that contribute to self interest, provided a major source of job distress and aggressive behaviour in the workplace. This finding was supported by Cropanzo, Howes, Grandey and Toth (1997) who found that organisational politics

were positively correlated with burnout in employees. A political climate in the workplace encourages and sustains situations that are characterised by unfairness, inequity, manipulation and dissonance. Unfortunately for many workers, business decisions are often based on economic factors and human considerations are rarely well thought out (Kim & Mauborgne, 1998; Rumelt et al., 1991), thereby perpetuating and encouraging disharmony in the workplace.

Vigoda (2002) cited a number of studies that found workplace politics were associated with negative outcomes for workers such as withdrawal of citizenship behaviour and reduced job satisfaction, and further that social support was associated with positive outcomes. It therefore follows that management tolerance of political climates with workplaces has inevitable negative consequences for sustainability and success of business outcomes. Gill (1999) saw work as a creative endeavour that provided workers with an escape from social isolation. For this reason the workplace became a social microcosm that was subject to the effect of power relationships characterising organisational politics:

> Institutions are full of individuals who are too jealous of their power to allow their subordinates to cooperate with members of other institutions, or even other segments of the same institution, even when co-operation has obvious advantages over a more insular modus operandi. People who exert power on others are often entirely unaware of the spell they cast on their subordinates, even when this undermines their workers' productive capacity (Gill, 1999, p.733).

On the other hand, community within the workplace setting involves social support or sense of participation in a collective purpose (Gill, 1999), and a valuing of the connections between people which incorporate norms of reciprocity and trustworthiness or 'social capital' (Putnam, 2000). Morale as a component of

workplace climate is one important aspect of community that it is often a quite tangible impression gained by visitors to the worksite (Dinham, Cairney, Craigie & Wilson, 1995). While morale is described as an individual perception of the energy, cohesion, cooperation and enthusiasm experienced by people in their workplace (Hart, Wearing, Conn, Carter & Dingle, 2000), it is also clearly a collective phenomenon and hence an aspect of community. An alternative and simple definition of morale suggests that it describes how good an individual feels about their work environment (McKnight, Ahmad & Schoder, 2001). Fogarty et al. (2001) in a series of studies involving aviation maintenance engineers found that morale, safety climate and health were positively correlated, and further, that these were negatively correlated with fatigue, turnover intentions and errors. Furthermore, Fogarty and colleagues found that work cultures that emphasised culpability ('heads will roll'), were counterproductive to safety because workers covered up mistakes when they occurred.

An important aspect of morale is a sense of affiliation, community and belonging (Baumeister & Leary, 1995). These factors of a thriving workplace are challenged by the corporate practice of restructuring, which involves the planned elimination of jobs (Farnham, 1990; Sheehan, 1999). Paradoxically, according to Sheehan, it would seem that the motivation behind restructuring in organisations, which invariably involves job shedding; includes global competitiveness, and acquisition of personnel who are multi-skilled, emotionally committed and dedicated to excellence. However the results are quite different to the expectations. Inevitably workers see inequity within the process of restructuring, because those who are expected to make sacrifices are invariably workers, not management (Farnham). Farnham noted that integrity on the part of managers was central to the successful

implementation of restructuring processes, as was full disclosure of bad news. This gave workers plenty of warning in the event of plant closure.

An effective organisation relies on many forms of discretionary, voluntary contributions for which people seldom get direct credit and are not part of any job description. A sizable body of literature has grown around the construct of organisational citizenship behaviour and its importance to the social fabric of organisational culture (LePine, Erez & Johnson, 2002). Invariably, organisational citizenship behaviour is linked with high morale and a supportive environment (Blasé & Blasé, 1997; Hodson, 2004; Reitzug, 1994). Frenkel, Korcyznski, Shire and Tam (1999) noted that call centre employees, who are electronically monitored, saw this form of performance appraisal as a positive, rather than a negative practice, when combined with a facilitative and considerate leadership style. Examples of worker and manager behaviours which help organisations include: altruism, conscientiousness, cheer leading, sportsmanship, civic virtue, peacemaking and courtesy (Erhart & Nauman, LePine et al., 2002).

A key component in much of the literature is the central role played by managements in the development of organisational community. Sarros and Sarros (1992) found that burnout was exacerbated in those teachers who received no support from the principal, and who instead, relied on support from colleagues. This would suggest that support, without the ability to address issues in a meaningful way, is counterproductive to morale and the educational process. According to Blasé and Blasé (1997), successful school principals worked hard to create school climates free from fear, criticism, coercion and intimidation, thus achieving a working environment that was high in morale, participative decision making, and in which teachers were able to engage with the educational process. Timms, Graham and

Caltabiano (2007) found that perceptions of school administration trustworthiness, morale and participative decision making explained 44% of burnout/job stress. Hence, management trustworthy behaviour is central to an understanding of community in the workplace (Greenfield, 2004; Mayer, Davis & Schoorman, 1995; Whitener et al., 1998).

In 1998 the Academy of Management Review devoted an entire issue to trust in organisations and to the debate among academic researchers as to exactly what is meant by trust. While consensus as to a definition of trust was not achieved, it was widely recognised that high distrust was characterised by "fear, scepticism, cynicism, wariness and watchfulness and vigilance" (Lewicki, McAllister & Bies, 1998). These are all characteristics of a workforce that is vulnerable to emotional exhaustion, cynicism and disengagement. Furthermore (leading into the next section), anger resulting from unfair practices has direct links to physical conditions such as high blood pressure and heart disease, and with mental problems such as depression (Siegrist, 2002, 2004). In addition, Kivimaki, Ferrie, Head, Shipley, Vahtera and Marmot (2004) found evidence of reduced health risk after constructive alterations in organisational justice within the workplace. Leiter and Maslach (1999) suggested that the quality of interrelationships within the workplace were fundamental correlates of burnout and engagement. Moreover leadership that is directed at creating a supportive, rather than political, environment within the workplace is more likely to be rewarded with an energised, absorbed and creative workforce with reduced rates of sickness absence (Head, Kivimaki, Martikainen, Vahtera, Ferrie, & Marmot, 2006).

1.6.4.5 Values

Values in the workplace overlap all other areas according to Leiter and Maslach (1999), this is because values congruence lies at the heart of workers' relationships with their work. Reichers (1986) said that workers' identification with organisational goals and values was important in developing commitment to the organisation and trust in its leaders. Consequently competing commitments create the potential for conflict. Leiter and Maslach (2004) said that values included the ideals and motivations whereby workers were first attracted to the job. Schwartz and Bardi (2001) defined values as "desirable, transsituational goals, varying in importance, that serve as guiding principles in people's lives" (p. 269). According to Schwartz and Bardi, there are ten values that can drive human motivation: power, achievement, hedonism, stimulation, self direction, universalism, benevolence, tradition, conformity, and security. As values include the principles and motivations that originally attracted workers to the organisation (Leiter & Maslach, 1999, 2004), they form part of the psychological contract that an employee believes they have with the organisation (Rousseau, 1995). Hence, values go far beyond a functional barter exchange of time for money, or promotion, or extrinsic motivation for employment (see Gill, 1999; May et al., 2004; Smith et al., 2005). Because of their deeply personal nature, mismatches in values have the capacity to disrupt relationships individuals hold with their work. So, when people hold different values to those espoused by the organisation they work for, the work becomes personally irrelevant (Leiter & Maslach, 1999). The strain of enduring work that has become meaningless, leads inevitably to emotional exhaustion; when combined with coercive leadership, it is likely to progress to cynicism.

According to Ryan and Deci (2000), most people demonstrate effort, activity and responsibility in their lives and this is evidence of some very constructive and

enduring features of the human spirit. May and colleagues (2004) understood the 'human spirit' to be that part of the human being that sought fulfillment through self expression at work. Their research was conducted with the aim of developing an understanding of why some people become engaged in their work and others demonstrate apathy and disengagement. According to May and colleagues, the key to employees' achievement of psychological meaningfulness and safety at work, was an opportunity to perform work that allowed them to express their authentic self concepts. May and colleagues further suggested that trustworthy management behaviour was associated with willingness on the part of workers to invest themselves fully in their work (reminiscent of engagement).

In an international study of teachers in 56 nations and students in 54 nations, Schwartz and Bardi (2001) noted that benevolence (helpfulness, honesty and loyalty), self direction (creativity, freedom and choosing own goals), and universalism (understanding of, and appreciation for, welfare of all people) were the most important values. The least important were power (social status and prestige), tradition (acceptance without question of customary cultural norms) and stimulation (novelty, excitement and challenge in life). People, who find meaning in helping people, could find themselves in positions such as those described by Tye and O'Brien (2002) and Fink (2003), where they were barely coping when overloaded with paperwork designed to maximise accountability; and a coercive management that is directed to ensure compliance with government legislation.

Viewed through the values lens, the addition of government compliance requirements to the field of education could well have changed emphasis of the career of teaching from benevolence, self direction and universalism (Schwartz & Bardi, 2001), to achievement, conformity and power; as a result creating a

predictable mismatch situation. This could well explain the burnout manifestations described by Fink (2003), Friedman (2000) and Tye and O'Brien (2002). Leiter and Maslach (1999, 2004) suggested that when worker and organisational values overlap, both parties are rewarded. Workers in this enviable situation are free to pursue what is crucially worthwhile to them in company time, thus providing for an increase in professional capacity and advancing of skills. The smaller the overlap is between worker and organisational values, the greater is the trade off between the work that workers want to do and work that they have to do (Leiter & Maslach, 1999, 2004). Results of this trade off would have to include development of burnout among workers.

1.7 Burnout and Engagement develops in an Organisational Context.

Perhaps the most important message from a study of burnout and engagement from within a framework of the areas of worklife (Leiter & Maslach, 1999, 2004) is that burnout and engagement do not occur in isolation, with a finite and predictable number of correlates, or as a result of individual worker attributes. They occur as dynamic and social responses within a dynamic and social milieu (Ashforth & Lee, 1997). Attempts to address burnout without examining its antecedents or its context are not effective uses of professional time when economies of scale are considered (Dworkin, 2001). According to Leiter and Maslach (1999, 2004), the goal of professional intervention should be to support processes by which organisations and workers build up adequate balance in the six areas of worklife. This will occur through inventive and effective communication channels, which provide for 'two way' communication within organisations.

Communication and procedural justice (Kim & Mauborgne, 1998) and management trustworthy behaviour (Mayer & Davis, 1999) have come to occupy a

central importance in much of the previous discussion of five of the six areas of worklife. It would appear that these management initiated contributions to worklife impact on workers and provide sufficient cause for many responses characteristic of worker engagement or burnout. For this reason the sixth area of worklife will be discussed in the next section with procedural justice and management trustworthiness. However, it is noted that without the framework of the six areas of worklife, provided by Leiter and Maslach (1999, 2004), it is doubtful whether the pivotal nature of procedural justice and management trustworthiness, to an understanding of the development of burnout, would have emerged within the present research.

Section 3: Fairness, Procedural Justice, Trust, Management Trustworthiness: Overview, Scope, Research Aim and Hypotheses

1.8 Trust and the Psychological Contract

Trust is seen as a critical component in the smooth operation of any organisation. In workplaces where relationships are ongoing and people can expect to associate with, and rely on, the same group of individuals over time, it is imperative that trust relationships are formed (Tschannen-Moran & Hoy, 1998). In her discussion of the mutual understandings that underpin reciprocal obligations between employer and employee, Rousseau (1995) saw the psychological contract as an evolving process, with both parties “filling in the gaps along the way” (p. 7). According to Miller (2001), what is interesting about the psychological contract is that while people may not be able to put into words exactly what they want from any relationship, they recognise immediately when their sense of ‘rightness’ has been violated. So, to some extent, it could be said that the psychological contract is a ‘code of conduct’ that is inbuilt in people.

The universal norm of the psychological contract is reciprocity and implied within the reciprocity construct is understanding and trust. Trust however is not something that is instantly granted by each party to the other, it is built up incrementally as the parties develop a reputation for being trustworthy. However, when violations occur, trust is instantly shattered (Tschannen-Moran & Hoy, 1998). According to Tschannen-Moran and Hoy, costs to industry resulting from lack of trust include unwillingness to take risks, demands for greater protection and insistence on expensive sanction mechanisms to defend the interests of the parties.

Trust involves risk and interdependence (Mayer, Davis & Schoorman, 1995; Mayer & Davis, 1998; Rousseau, 1995) and is not behaviour, but a psychological condition. It occurs as a result of behaviours, which in turn indicate the ability of the person to act as anticipated (Rousseau, Sitkin, Burt & Camerar, 1998). A widely cited definition of trust is:

> The willingness to be vulnerable to the actions of another party based on the expectation that the other will perform a particular action important to the trustor, irrespective of the ability to monitor or control the other party (Mayer et al., 1995, p. 712).

Those in management positions have at their disposal alternative methods for minimising the need to trust employees to ensure that tasks are performed, such as monitoring (electronic or personal) and control (sanction) mechanisms. These methods are unlikely to engender high trust among workers (Whitener, Brodt, Korsgaard & Werner, 1998) as they will inevitably affect the willingness of workers to be vulnerable to the actions of managers. They may lead to aggravation, hostility and withdrawal of citizenship behaviour (Davis, Schoorman, Mayer & Tan, 2000). Davis and colleagues, in two studies involving employees of nine independent franchises in a restaurant chain, found a significant positive relationship between

employee trust in management and restaurant performance and profitability. This would indicate that managers who can earn higher trust from their organisation's employees will achieve competitive gain over their opposition. Thereby further advancing the merit of investigating those aspects of behaviour that can contribute to a reputation of trustworthiness.

1.9 Perceptions of Management Trustworthiness

According to Mayer and colleagues (1995), management trustworthiness is based on three essential qualities for management: (1) ability, (2) benevolence, and (3) integrity.

1.9.1 Ability

For a manager to be trusted, workers must perceive that they have the requisite skills and potential to deal with the situation at hand. Davis and colleagues (2000) however indicated that while ability may well be related to managerial performance and the 'bottom line' from the perspective of those higher up the organisational hierarchy; it is the capacity to 'get things done' that inspires trust from workers.

1.9.2 Benevolence

Benevolence, on the other hand, is about relationships. The reward elements of social support, recognition of skills and contribution, are demonstrated by benevolence (Mayer et al., 1995). Such a manager is not secretive about organisational information, keeps communication channels open and demonstrates goodwill towards workers by demonstrating consideration and sensitivity, protecting employees' interests and refraining from worker exploitation (Whitener, Brodt, Korsgaard & Werner, 1998). Moreover, benevolence is a component of social exchange theory (Blau, 1964). In terms of reward, the appreciation, and recognition of a job well done will contribute a great deal towards workers' engagement with the

job and the organisations that employ them. Mayer and Davis (1999) argued that benevolent managers enhanced opportunities for employees to achieve positive outcomes that were both economic and psychological.

1.9.3 Integrity

Integrity was defined by Mayer and Davis (1999) in terms of congruence of statements and actions. Leaders who have integrity therefore 'walk the talk' and are honest; their actions closely reflect their stated values and they are consistently fair in their dealings with employees, customers and the public (Mayer & Davis; Whitener et al., 1998). Albrecht (2002) found integrity directly influenced trust in senior executives as well as cynicism among workers dealing with restructuring within the workplace. Because of this, Albrecht commented that those leaders who enjoyed the trust of their workforce would not be obliged to spend time and energy actively forcing change through their organisations or dealing with opposition within the workplace. Brown (2002) found a direct relationship between employees' perceptions of their employers' honesty and their acceptance of their managements' self-trancendence values. "The message to leaders is clear – don't waste your time trying to convey humanistic values such as altruism, justice, equality and teamwork to your employees unless you have earned a reputation for being honest" (Brown, 2002, p. 95).

1.10 Trust and Mistrust

Lewicki, McAllister and Bries (1998) and Saunders and Thornhill (2004) suggested that trust and mistrust were not opposite ends of one continuum, but separate, although linked, dimensions. Therefore, they argued that it was possible for employees to trust and mistrust within a given context. This would suggest that trust within workplaces is far from simple and would possibly support Mayer and

colleagues (1995) suggestion that it was possible for workers to develop ‘functional trust’ when the individual in whom trust was placed had lesser degrees of some of the aspects of trustworthiness. As trusting was defined in terms of risk taking, it was dependent on the risk taker, how much trust was placed on an individual. This assessment of risk involved weighing up possible favourable and unfavourable outcomes and what was likely to occur in response to the action taken.

An essay by Greenfield (2004) discussed moral leadership in terms of the quality of the person. According to Greenfield, morality could not just be assumed or switched on; it was a part ‘of being’. This would seem to be a feature of Brown’s (2002) message as well. However Whitener et al. (1998) and Mayer and Davis (1999) suggested that scrutiny of the factors of trustworthiness could inform management choices as to appropriate ways to deal with relationships in the workplace. Whitener and colleagues suggested that it was up to management to take the first step in initiating trusting relationships within the workplace. Furthermore, it was of considerable economic advantage for management to do so.

1.11 Organisational Commitment

Organisational commitment (OC) is the subject of a large body of literature (for example, Gbadamosi, Ndaba & Oni, 2007; Mathieu & Zaljac, 1990; Mowday, Steers & Porter, 1972; Powell & Ennis, 2007; Redman & Snape, 2005; Reichers, 1986). Organisational commitment is understood to be the bond that links the individual to the organisation and takes two main forms; attitudinal and calculated. These are outlined clearly in Mathieu and Zaljac’s meta-analysis. However, attitudinal commitment was originally defined by Mowday and colleagues. This is seen as related to strong trust in the organisation’s values and aims, motivation to work hard for the organisation, and desire to maintain connection with the organisation.

Calculated commitment on the other hand is characterized when individuals have become attached to the organisation because of considerable personal investment in it (such as a superannuation plan) and therefore cannot afford to leave it. It is the attitudinal form of OC that has relevance to the present study. Two other forms of OC are easily subsumed into the definition provided for attitudinal commitment by Mowday et al.; these are normative commitment (socialisation and value congruence) and organizational identification (desire to maintain connection to the organization) (see Mathieu & Zaljac, 1990).

Attidudinal commitment correlates highly with motivation, job involvement, job satisfaction, and negatively with job stress (Mathieu & Zaljac, 1990). It is observed that the view of attitudinal commitment as a bond between the individual and the organization has obvious parallels with the psychological contract (Rousseau, 1995). Consequently, it is also observed that violations of the psychological contract would lead inevitably to the disruption of attitudinal commitment and loss of faith in the organization and its management (Gbadmamosi et al., 2007; Reichers, 1986). This has manifest parallels with Miller's (2001) observation that people expect to be treated fairly and when that doesn't happen there is a consequent loss of trust.

1.12 Fairness and Procedural Justice

While Leiter and Maslach's (1999) paper suggested that research focused specifically on fairness was rare, their 2004 discussion of their model, and their Areas of Worklife Survey (AWS) (2006) instrument, acknowledged that sizable body of literature devoted to procedural justice and its effect on individuals in the workplace (for example, Chen, Brockner & Greenberg, 2003; Colquitt, Conlon, Wesson, Porter & Ng, 2001; Judge & Colquitt, 2004; Kim & Mauborgene, 1998; Kivimaki et al., 2004; Liao & Rupp, 2005; Miller, 2001; Skarlicki & Latham, 1996).

Fairness or justice in the workplace shares some characteristics with community and reward (Maslach & Leiter, 1997). This is because fairness in organisations is a quality of strong and supportive community (Blasé & Blasé, 1997; Lewicki, McAllister & Bies, 1998; Leiter & Maslach, 1999) and is an important component of equity (Adams & Rosenbaum, 1962; Bakker et al., 2000; Walster et al., 1973). It is characterised by the presence of mutual consideration (Kim & Mauborgne, 1998; Leiter & Maslach, 1999), trustworthy leadership (Leiter & Maslach, 2004), and trust and commitment (Kim & Mauborgne, 1998). An extensive leadership literature further links leadership injustice with poor worker and organisational outcomes (Gilbreath & Benson, 2004; Glendinning, 2001; Hogan, 1994; Hogan, Curphy &Hogan, 1994; Hogan & Sinclair, 1997; Liao & Rupp, 2005; Miller, 2001). Whitener and colleagues (1998) commented that it was up to managers and organisations to take the first step in establishing a trusting relationship, as they controlled the communication channels and power within the workplace.

Kim and Mauborgne (1998), in their discussion on strategic decision making reviewed procedural justice literature, and stressed the importance of obtaining voluntary cooperation from subordinates: “When people feel their (the organisation’s) strategic decision making processes are fair, they display a high level of voluntary cooperation based on their attitudes of trust and commitment” (p. 324). The converse of this, would therefore be, that consequences of unfair processes involve passive responses; ideas being hoarded and strategic decisions being responded to by passive non cooperation (Miller, 2001). This is reminiscent of the literature that targets antecedent conditions for workplace citizenship behaviour (Erhart & Nauman, 2004; LePine et al., 2002; Moorman, Blakely & Niehoff, 1998).

According to Kim and Mauborgne (1998), procedural justice involves three important aspects: (1) engagement (2) explanations and (3) clarity of expectation. Engagement is the involvement of individuals in decision making. This happens when employees are asked for their input, and they can do so, even when the contribution refutes the merits of the ideas and assumptions of others who may be higher up the organisational hierarchy. Explanations involve the provision of a full account of why final decisions were made as they were and why workers' ideas and inputs may have been over ridden in the final choices that have been made. Clarity of expectation provides people with a firm understanding of what is expected of them before, during and after decisions are made. Included in this is a spelling out of what the 'new rules of the game' are (Kim & Mauborgne, 1998).

Communication and openness are widely cited in procedural justice literature within the context of procedural, interactional justice (sincerity and respect), and informational justice (adequate and honest explanations) (Colquitt et al., 2001; Judge & Colquitt, 2004; Kim & Mauborgene, 1998; Kivimaki, et al., 2004). It has been suggested (Leiter & Maslach, 1999; Miller, 2001) that fairness/procedural justice is something that people care about, not because they wish to attain favourable outcomes, but because of the process, therefore as an end in itself. According to Kim and Mauborgne (1998) people respond to justice on an intellectual level (they are challenged to do their best thinking) and on an emotional level (where trust is built). Liao and Rupp (2005) suggested two planes of responses to organisational justice: (1) focuses on responses to the organisation as a whole, and (2) focuses on individuals' relationships with supervisors. Organisational focused response was related to procedural justice and information (communication), whereas supervisor focused response was related to procedural justice and interpersonal justice

(relationships). Kivimaki and colleagues (2004), commenting on findings of the extensive longitudinal 'Whitehall II' study of British civil servants, found that favourable changes in the justice of interpersonal treatment was associated with a reduced risk of major coronary events in men, whereas adverse changes in workplace justice was associated with a greater risk of such events in both men and women. This latter finding was supported by Kuper et al. (2002) who recommended that employers could reduce health risks to employees through the improvement of social support networks within organisations.

Colquitt and colleagues (2001) and later, Judge and Colquitt (2004) saw organisational injustice as a stressor; an aspect of work that causes employees to doubt their ability to do the job required and hence directly affecting worker efficacy. They associated injustice in the workplace with withdrawal and distress of subordinates; this suggests a link with cynicism/disengagement (Demerouti et al., 2002; Maslach et al., 2001). A natural human reaction is to do something about the distress. If this is impossible, because of a power imbalance and the threat to continued employment there is consequent resentment, hostility, ill will and outrage among employees (Miller, 2001). Glendinning (2001) posited that such management had the potential to derail business and that training in leadership and management should be offered to those managers who had exhibited unjust behaviour towards employees. Skarlicki and Latham (1996) found that training of managers in justice was effective in improving workplace relationships. Kivimaki and colleagues (2004) found that favourable changes in justice within the workplace, was associated with reduced health risks for employees.

Consequently, the challenge facing those in positions of authority, in any organisation, is to develop skills by which they may steer proceedings towards

outcomes that are productive and satisfactory to all concerned, thereby sustaining high levels of morale and commitment among staff members (Judge & Colquitt, 2004). Unfortunately in the 'hard-nosed' world of modern corporations, issues between people in the workplace are often settled along competitive, egocentric or 'win-lose' lines (Thomas, 1992), thereby undermining trust. Hence negotiation skills and training in procedural justice are essential tools for leadership. Hogan (1994) defined leadership as "a person's ability to persuade other members of a group to forego, for a while, the pursuit of their individual goals, and to act in concert with a group goal" (p. 10). Hogan further estimated the base rate for incompetent leadership in American corporations to be at least 50%. The capacity of such leaders to rally staff members to a group goal is therefore undermined by worker intransigence and anger due to perceptions of injustice and lack of sincerity (Miller, 2001).

Consequences of unjust leadership in the work environment include psychological distress, leading to lost production through sickness and inability to optimally perform. Other consequences, such as disengagement and cynicism will be found among those who have limited options for alternative employment and who therefore find themselves stuck in an untenable situation and consequent simmering anger (Miller, 2001). Both Hughes (2001) and Tye and O'Brien (2002) suggested that in the field of education, many teachers who suffer chronic burnout, become conditioned to this experience and accommodate their burnout by incorporating it into their working lives. Consequences of this would include the development of a cynical persona (Abraham, 2000); resigned acquiescence to the situation, albeit accompanied by quickness to anger (Freudenberger, 1975); a sense of powerlessness (Byrne, 1991); alienation, resistance to change (Tye & O'Brien); an erosion of meaning in one's working life (Pines, 2002); and a loss of a sense of calling (Fink,

2003). Subordinates' experiences of injustice can therefore escalate into reactions that can have only negative consequences for the organisation and people involved (Albrecht, 2002; Hogan, 1994; Hogan et al., 1994). According to Miller (2001), people believe they are entitled to respectful treatment. Leiter and Maslach (1997) suggested that fairness in the workplace was valued by staff as an indication of genuine concern on the part of management toward their well being, this is reminiscent of the benevolence aspect of management trustworthiness.

1.13 Procedural Justice and Management Trustworthiness

Procedural justice (Chen, Brockner & Greenberg, 2004; Kim & Mauborgne, 1998) has evolved as a separate area of interest, but is so closely tied with management trustworthiness that much of the literature discussing each construct is reminiscent of the other. For example, in their discussion of managers as initiators of trust, Whitener and colleagues (1998) included 'sharing and delegation of control' and accurate, open and full explanations as part of their understanding of the behaviours that demonstrate the presence of ability, benevolence and integrity in management. Kim and Mauborgne isolated three aspects of procedural justice that they considered to be vital in strategic decision making: (1) engagement, asking for employee input, even when it refuted assumptions and opinions of those higher up the organisational hierarchy; (2) explanation, full divulgence of why final decisions have been made as they are and why some ideas may have been overridden; and (3) clarity of expectations, individuals are kept up to date on what expectations are before, during and after decisions have been made. Of these three components of procedural justice, both engagement and explanation are reminiscent of Whitener et al.'s (1998) description of typical behaviour manifestations of management ability, benevolence and integrity. These are sharing of control, and full and open explanations. Hence it

is advanced, in the current research, that the constructs of management trustworthiness, fairness and procedural justice share a great deal of overlap.

1.13.1 How Workers respond to Unjust Treatment in the Workplace

Kim and Mauborgne (1998) stressed the strategic advantage, to managements, of implementing procedural justice processes in the workplace. Therefore, procedural justice was discussed as an avenue of achieving voluntary cooperation based on management's earning of worker loyalty and trust. Miller (2001), in his review of the literature, described the converse situation – where the experience of injustice, in a wide variety of contexts, inevitably leads to withdrawal, in two forms; (1) voluntary and (2) involuntary.

Voluntary withdrawal

According to Miller, people do not comply when they perceive they have been treated unfairly. They read the unfair treatment as disrespect, and "it is as though authorities, by their disrespectful treatment, forfeit the right to continued compliance from those under them" (Miller, 2001, p. 543) (see also, Colquitt et al., 2001; Judge & Colquitt, 2004). The other effect of disrespect, in the face of injustice, is the voluntary worker withdrawal of citizenship behaviour, thereby reducing the occurrence of goodwill, civility and consideration (Colquitt et al. 2001; Le Pine et al., 2002; Moorman et al., 1998).

Involuntary withdrawal

According to Miller (2001) the experience of injustice in the workplace leads to involuntary withdrawal in one or more psychological states. For example, the experience of injustice often leads to anger. When a person is not able to do anything about that anger, because of a power differential, the resulting powerlessness can lead to lowered self esteem and depression. This is reminiscent of other research

noting the relationship of injustice to poor health outcomes such as high blood pressure, heart disease and depression (Kivimaki et al., 2004; Siegrist, 1996, 2002).

Involuntary withdrawal is also reminiscent of the disengagement aspect of burnout as described by Demerouti et al. (2002) (see also, Halbesleben & Demerouti, 2005). Disengagement is a feeling of distancing from and devaluing of the work experience (Demerouti et al.), that is not under conscious control, but will lead to specific behavioural decisions. Workers suffering from disengagement will firstly become negative about their work, leading to an active cognitive process where workers question its meaning, and whether it is worthwhile continuing in it. Sonnentag (2005) suggested that disengagement is a 'coping strategy' where the individual, unable to achieve restorative psychological distance from the work environment, 'disengages' and becomes negative about the workplace.

Maslach, Schaufeli and Leiter's (2001) distancing mechanism, within their description of the burnout syndrome, was cynicism. Abraham (2000) and Albrecht (2002) however, saw workplace cynicism as a response to workers' doubts about management integrity as would be manifested in the experience of injustice. Managements might well view cynicism with their workforce as 'bad attitude' and something that is under workers' conscious control, and thereby blame the worker for their cynicism (Maslach & Leiter, 1997).

1.14 How Procedural Justice and Management Trustworthiness research can inform Managements

Kim and Mauborgne's (1998) theoretical paper, which reviewed the literature on procedural justice and highlighted its practical contribution to industrial applications, was couched in terms of how management could achieve voluntary cooperation in the execution of major decisions. It was argued, on the basis of understandings from social psychology and law, that individuals will demonstrate high levels of

cooperation when they believe that decision making within the organisation has been fair. Miller (2001) corroborated this view and noted, “people care about procedural justice…. not as a means to an end (better outcomes) but as an end in itself” (p. 529).

Colquitt and colleagues’ (2001) meta-analysis of organisational justice research found that procedural justice was related to several positive organisational outcomes including trust, outcome satisfaction, job satisfaction, organisational commitment, agent references evaluation of authority, system referenced evaluation of authority, occupational citizenship behaviours, and performance. Colquitt and colleagues argued for interpersonal justice (sincerity and respect) and informational justice (adequate honest explanations) to be separated out within the procedural justice framework, because they have different correlates to each other, and hence their amalgamation into one procedural justice construct, engenders loss of information. While this is noted, it is posited that these aspects of procedural justice reveal further overlap between perceptions of management trustworthiness and procedural justice.

Timms, Graham and Caltabiano (2007) found that Mayer and Davis’ (1999) perceptions of trustworthiness (ability, benevolence and integrity) explained significant variance in participative decision making and morale; and that management trustworthiness, morale and participative decision making explained 44% of burnout and job stress. It is therefore advanced that that current research will discover significant correlations between the factors of procedural justice and management trustworthiness. In addition, it is anticipated that significant relationships will be found between measures of perceptions of management trustworthiness, procedural justice, burnout and engagement. A model of these projected findings is detailed in Figure 1.

1.14.1 Scope of the Current Research

The current research extends the six areas of worklife, advanced by Leiter and Maslach (1999, 2004, 2006) as an organisational context in relation to the development of worker burnout or engagement. Two different and separate fields of management trustworthiness (Mayer et al., 1995; Mayer & Davis, 1999; Whitener et al., 1998) and procedural justice (Colquitt et al., 2001; Judge and Colquitt, 2004; Miller, 2001; Kim & Mauborgene 1998) are added to the mix, for the purpose of achieving more understanding of workplace dynamics. It is posited that these fields (which may well be highly correlated), will in fact be pivotal to an enhanced appreciation of how burnout and engagement develop with the work environment.

The original contribution this research will make lies in the combination of management trustworthiness, procedural justice and the areas of worklife in relation to the development of worker burnout and engagement. This has entailed a combination of business literature (management trustworthiness) and organizational psychology literature (procedural justice) with the burnout and engagement constructs. It is anticipated that this research will help workers, organisations and authorities by contributing to knowledge about workplace dynamics and worker health outcomes. This knowledge may well contribute to planning and training within organisations for better welfare of workers, improved productivity and business success.

1.14.2 Research Design

The research design included three stages. Stage one involved small group interviews with people working in small business (JCU ethics approval H2205). The purpose of this research stage was to provide information for survey construction as to the relevance of the research model to people working in small and micro businesses and

to determine if there were differences in regard to the development of worker engagement and burnout between types of business. Stage two of the research involved a large industry survey (JCU ethics approval H2207). The purpose of this research stage was to gather data to investigate the efficacy of the research model (Figure 1.1). The third stage of the research (JCU ethics approval H2593) was designed to expand findings of the previous survey by interviewing respondents who had indicated their willingness to contribute to the research in this way.

1.15 Model of Proposed Variable Relationships in the current research

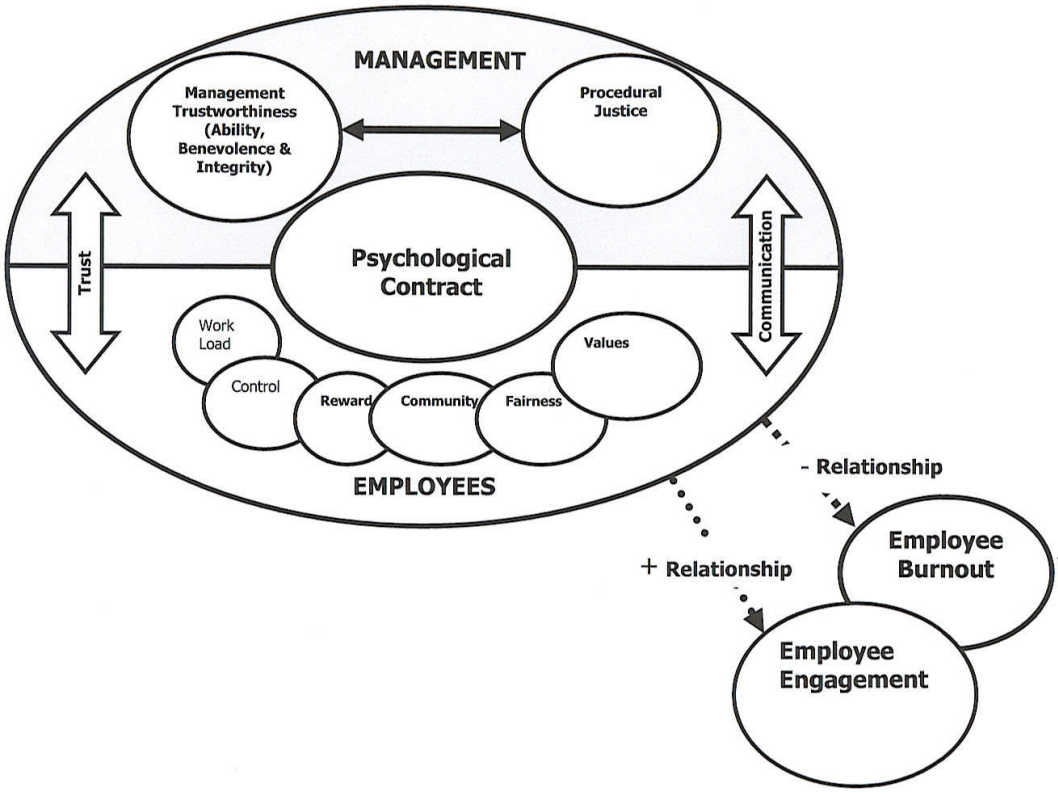


Figure 1.1. Model of Variables and their Relationship to Employee Engagement and Burnout.

This research investigated the utility of the model illustrated in Figure 1.1. The model shows the organisational arena divided into two spheres, management and employees. The two salient parts of the management sphere include perceptions of management trustworthiness and procedural justice, with a double headed arrow depicting projected high correlations. The employee component of the model has six

overlapping components; these are the six areas of worklife; (1) workload, (2) control, (3) reward, (4) community, (5) values, and (6) fairness. The areas of worklife are depicted as overlapping in Figure 1 because Leiter and Maslach (1999) indicated that they each have implications for the others. Two double headed arrows between the half spheres denote communication and trust which flows both ways between management and employees. At the heart of the model is the psychological contract that is comprised of reciprocal expectations between employees and management. The model tests significant relationships between the variables and burnout and engagement of workers. In the case of burnout it was anticipated that all other variables will display a strong negative relationship with it, and in the case of engagement it is anticipated that it will display a strong positive relationship with other variables.

1.16 Aim of the Research

It was the aim of this research to elucidate fully and promote a meaningful understanding of the relationships between the variables of the six areas of worklife as described by Leiter and Maslach (1999, 2004) and the development of worker burnout and engagement. Within this framework it was expected that an added appreciation of the role played by managements in setting the tone for healthy workplaces would be achieved.

1.17 Hypotheses

- It was hypothesised that perceptions of management trustworthiness would be predictive of good worker adjustment in that there would be a significant negative relationship between it and exhaustion and disengagement.

- It was hypothesised that procedural justice would be predictive of good worker adjustment in that there would be a significant negative relationship between it and exhaustion and disengagement.
- It was hypothesised that there would be significant positive relationships between perceptions of management trustworthiness, procedural justice and worker engagement; thereby validating the model's capacity to predict systemic antecedents to the development of workplace burnout and engagement.
- It was hypothesised that the separate constructs of management trustworthiness (Mayer & Davis, 1998), procedural justice (Moorman, Blakely, & Niehoff, 1998) and fairness (Leiter & Maslach, 1999, 2004, 2006) would reveal considerable overlap, thereby providing scope for additional dialogue between these separate fields of research.

Chapter 2

"I'm hopeful that the phone will keep ringing and keep me out of mischief": Regional Small Business 'On the Edge'

This qualitative study was a preliminary small group interview phase in the larger research project examining workplace dynamics, engagement and burnout. The most important theme to emerge from these initial small group interviews was a sense that running a small or micro business in a regional centre means being 'on the edge', particularly in regard to finding and keeping good staff. Participants invested considerable financial, personal and emotional resources into their businesses, yet were vulnerable to many outside influences which threatened their stability and security. These findings indicate the relevance of Leiter and Maslach's (1999) six areas of worklife, to a more meaningful understanding of the problems facing regional small businesses in Australia.

Key words: Small Business, Micro Business, Psychological contract, Burnout, Engagement.

In modern industrialized societies a significant proportion of employees' mental, physical and emotional resources are absorbed by the demands of work, because work accounts for most of people's waking hours. Paid work provides a great deal more than income to support living standards; it provides many psychological needs, such as a sense of personal worth, affiliation and individual well being. Hence it can be seen as an important creative endeavour, that not only contributes to personal meaning and identity (Gill, 1999), but to social identity as well (Siegrist, 2002). Because work affects people at a deeply personal level, it is inevitable that individual workers are vulnerable to workplace stresses. In a focus on mental health in the workplace, the International Labour organization (ILO) (2000), confirmed that the

workplace environment can have a significant effect on the mental health and well being of workers. The compromised mental health of workers is associated with increased costs to industry through sick days, increased staff turnover, and reduction in productivity (ILO, 2000). Therefore, it is in the interests of managers to develop an understanding of mental health in the workplace and to actively work towards enhancing it.

Stevens (1993) asserted that people begin their relationship with their work, with expectations of good feelings and success. This was supported by Rousseau (1995), who suggested the construct of the psychological contract. Unlike a formal workplace agreement which is signed by both parties and lists duties and behavioural expectations as well as the details of financial remuneration, a psychological contract consists of the expectations held by employers and employees of the attitudes and commitment each will bring to the relationship. So within a workplace relationship, each party will give of themselves in an expectation of receiving (Stevens, 1993). In the case of employees, expectations include; good feelings about their workplace, support and appreciation of their efforts, and in the case of employers, productivity and loyalty are expected of workers (Rousseau, 1995).

Consequently, well being within working relationships is highly dependent on a good fit between the organization and values, skills, and abilities of individual workers (Stevens, 1993). According to Leiter and Maslach (1999), mismatches in employment happen when critical ground rules are undecided or when something happens to alter the working relationship, thereby rendering it unacceptable to the employee. Hence the burnout/engagement focus shifts definitively from the employee to the relationship the employee has with the organisation. Workers in the 21st century experience employment issues and relationships with their workplace

that may impact on them in such a way that stress is an inevitable outcome. In addition, pressure on managers and business owners to comply with government regulations, achieve deadlines and improve production, can translate to a high level of stress for employees and employers alike (Sparks, Faragher & Cooper, 2001; Timms, Graham & Caltabiano, 2007), thus putting enormous strain on relationships within the workplace. Nevertheless, according to Mayer and Davis (1999), managers who are aware of the meaningfulness of these relationships will be conscious that their interactions in the workplace are characterized by ability, benevolence and integrity.

People, who are engaged in their work, enjoy it and are energised by it. Even though they work hard and may get very tired physically, they feel the satisfaction of having accomplished something worthwhile (Schaufeli, 2004). Furthermore they enjoy other aspects of life besides work. So they are individuals who have balance in their life and have the ability to relax when they need to do so (Schaufeli & Bakker, 2003). At the other end, of what some see as a bipolar construct (Gonzalez-Roma, Schaufeli, Bakker & Lloret, 2006; Maslach, Schaufeli & Leiter, 2001), is worker burnout. The main characteristics of worker burnout include emotional exhaustion, a feeling of being overextended and stressed to the extent that a person's capacity for resilience is completely undermined; and cynicism, characterised by a sense of distancing from the organization and the people in it.

Maslach and Leiter (1997) described the 'downward spiral' of burnout which has its roots in the 'degree of fit' between the individual and six key areas of worklife. Mismatches on any of the areas of worklife, are likely to engender emotional responses, which by the nature of the environment in which they are experienced, are social experiences. The six areas so identified by Leiter and

Maslach (1999) are: (1) workload (excessive work, or the wrong kind of work for the person), (2) control (insufficient control of resources or authority to pursue the work in the most effective manner), (3) rewards (lack of recognition, appreciation or remuneration incommensurate with effort expended), (4) community (lack of support from colleagues in the workplace), (5) fairness (consistency of decisions and equity of rules), and (6) values (discrepancy between the values of the person and the organization). In an ideal world, employees and employers would arrive at a mutually acceptable balance on these six areas through unambiguous negotiation of the psychological contract (Rousseau, 1995). According to Leiter and Maslach, the goal of professional intervention should be to support processes by which organizations and workers build up adequate balance in the six areas of worklife. This will occur through inventive and effective 'two way' communication channels within organizations.

Studies of human relationships within the small business workplace are rare (Matlay, 1999) and often models applied to larger business workplaces do not apply (Mazzarol, 2003). However, an Australian Bureau of Statistics (ABS, 2001) census found that 3.3 million people were employed in small non-agricultural businesses within Australia. This figure represented 47% of private sector employees in 2000-2001 and so represents a significant proportion of the Australian workforce. For clarification the current study uses two terms to distinguish small businesses in Australia, 'micro' business is a reference to small business with less than 5 employees and 'small' business is a reference to businesses with 6-20 employees (ABS. 2001).

2.1.1 Aim

The aim of the current paper is to extrapolate major themes from several small group interviews and present a human face to the experience of engagement and burnout within the small business workplace. As it transpired, all participants in the small group interviews were managers within small or micro business, therefore workplace dynamics were discussed from a management perspective.

2.2 Methodology

The current phase of the research employed qualitative data collection by means of a card sort exercise in the context of small group interviews with informed participants. The researcher presented a talk introducing the six areas of worklife, burnout and engagement as well as the research plan at the request of members of a local chapter of Business Network International (BNI) (2006), a networking group for small businesses which aims to provide members with quality referrals. During the talk it was revealed that little was known about human dynamics in small and micro business. Members indicated that they were interested in providing their own insights into this topic.

2.2.1 Participants:

Ethics approval was obtained and groups of two or three interested workers or managers were sought to undertake the interview with the investigator at a time which was convenient to them and which did not impinge on their working hours. It was decided to use a structured introduction in order to direct participants' thinking about the organizational context of worker mental health outcomes, to ensure all participants were familiar with the terms being used in the questions and to achieve data within a short time frame (Millward, 2000; Vaughn et al., 1996). Consequently participants were selected by purposive sampling (Patton, 1990). This sort of

sampling identifies cases of interest from people who know people who would be good interview subjects, who can inform the research. For this reason sampling began with participants who belonged to a small business network group who were interested in contributing to the research.

A total of ten participants were interviewed; five women and five men. All were managers within their micro or small business spheres and seven were owners or part-owners of their businesses. Participants included a high pressure water cleaner/operator; a carpet cleaner; two real estate agents; a financial planner; a mechanic; a landscape gardener; a mortgage broker; and two office managers. Although it was planned to interview workers in separate interviews to managers, people who held management positions were substantially more interested in participating in the interviews than were employees. It is noted here that the research plan involved getting permission from management to approach workers. Within the context of micro and small businesses, concerns were raised by some workers that their anonymity could be compromised since their employers were aware they had been approached by the researcher, and participation of employees could well generate tension and unwelcome curiosity within the workplace. Consequently all participants in this phase of the research were managers.

2.2.2 Procedure

Most of the card sort words came from Saunders and Thornhill (2004) who used 21 words representing negative emotions and 19 representing positive emotions. For purposes of equivalence this research used 22 negative words and 22 positive words relating to emotions which might be felt within a workplace context. Actual words appear in Table 2.1.

Participants were asked to sort 44 cards, each containing one emotion which may well be experienced as a result of interactions within the workplace, into “do not feel” or “feel to some extent”. The methodology is explained in Saunders and Thornhill (2004) in the context of trust and mistrust in organizations. The “do not feel” cards were removed and noted. Each participant was then asked to commence a second sort of the cards containing an emotion in the “feel to some extent” cards into “felt strongly” and from these identify three felt “most strongly”. It was anticipated that discussion with participants during and following this process would identify aspects within the workplace which related to workplace relationships.

Table 2.1. Words used in card sort for small group interviews

Negative Words		Positive Words	
Angry	Mistrustful	Calm	Involved
Anxious	On edge	Cheerful	Keen
Concerned	Overwhelmed	Comfortable	Optimistic
Confused	Powerless	Confident	Positive
Demoralized	Resentful	Eager	Relaxed
Depressed	Resigned	Enthusiastic	Relieved
Disinterested	Stressed	Excited	Satisfied
Frustrated	Swamped	Expectant	Secure
Hopeless	Under pressure	Happy	Supported
Indifferent	Vulnerable	Hopeful	Trusting
Insecure	Worried	In control	Rewarded

Questions asked within the context of the card sort exercise, were derived from the literature (e.g., Leiter & Maslach, 1999; Maslach et al., 2001; Rousseau, 1995; Schaufeli & Bakker, 2003) and included:

1. Participant impressions of workplace relationships as triggered by the card sort exercise.
2. Understandings of expectations of themselves and those who are managers (or employees) of participants (psychological contract).

3. What aspects of workplace relationships contribute to worker stress (burnout).
4. What aspects of workplace relationships contribute to worker empowerment (engagement).

Apart from the card sort exercise the interview was unstructured and focused on participants' experience of the 3 focus emotions within the workplace.

2.3 Analysis and Results

The recorded interviews were transcribed and categorized according to themes and patterns which emerged. Data were analysed by means of content analysis (Hsieh & Shannon, 2005) using a directed approach and Nvivo 7 software. 'A priori' categories (Stemler, 2001) from the research model were used to guide coding analysis. These categories were based on the six areas of worklife model (Leiter & Maslach, 1999), engagement (Schaufeli & Bakker, 2003), and burnout (Maslach et al., 2001) as well as the psychological contract (Rosseau, 1995). In order to maximise accuracy of coding analysis, two independent coders applied the chosen categories to the transcript document, with high (94%) concurrency. Inconsistencies were discussed and reconciled between the coders. Any inconsistencies were deemed of a minor nature by the researchers. For instance, one coder classified a participant's comment of "under pressure from a financial point of view – work and income" as workload and community and the other coder classified it as workload and control. One main theme and two 'sub' themes emerged from the predetermined categories, and formed the framework for data presentation in this study.

The main theme which emerged from the interviews was a reasonably constant feeling of being 'on the edge'. This feeling was engendered mainly by aspects of control, and to a lesser extent, workload, reward, community and values (Leiter & Maslach, 1999); and was both negative and positive from participants' perspectives.

On the one hand, participants lacked security and daily faced challenges which could well undermine the success of their businesses. On the other hand, there was a sense of achievement at having successfully faced challenges and of being self employed or of contributing in a substantial way to the success of a small business. Theme one is the pervasive theme for this chapter and incorporates aspects of themes two and three.

Theme two was a sense that running one's own business can provide satisfaction in that it is personally rewarding to have good relationships with clients and employees, to be in charge of one's own destiny by being a small business owner and to be absorbed in one's work (Schaufeli & Bakker, 2003). Of the ten participants, four reported high engagement with their work as described by Schaufeli (2004). Theme three provided for the two participants who reported major issues which could be seen as illustrations of burnout as expounded by Maslach et al. (2001).

2.4 Data presentation and relevant literature

It is noted that in this section participant comments are not specifically associated with their occupation or sex unless this information is revealed within their comments themselves. This is due to the small number of participants, the fact that some are well known in their regional Far North Queensland community, which is 1200 kilometres from the state capital city (Brisbane), and the need to protect their anonymity.

2.4.1 Theme 1. A sense that the business is, "on the edge"

The title for this theme was chosen because, a number of participants expressed a sense of having invested considerable financial, emotional and physical resources in their businesses; and yet were conscious of a constant possibility that circumstances or events beyond their control could open up areas of vulnerability for them and

quite possibly generate the seeds of misfortune. One participant expressed it this way, having chosen the word “hopeful” in the card sort exercise in the period just before Christmas which is traditionally a holiday season in Australia,

> I’m hopeful that the phone will keep ringing and keep me out of mischief. The main reason that I’m hopeful is that I will have enough work to keep my really good employee. He is a good worker – I can’t afford to keep him on any other than a casual basis and I don’t want to lose him. I want to keep him occupied 40 hours a week – so I need the phone to keep ringing. That puts me on edge. I can see the potential this fellow has got and I don’t want to lose him.

Within this participant’s comment is an awareness of the seasonal fluctuation of any service business. Such businesses experience ebb times, during which they may need to find another good worker or face possible financial ruin. The same participant explained the choice of the word “expectant” which had been thought by the researcher to be a positive word, “Ah no – not really – it’s not a positive one. I’m expecting things to improve but really worried that they might not. It’s a horrible feeling”.

Cash flow was a common problem which contributed to a sense of insecurity mentioned by participants:

> I don’t know how many times I’ve gone without pay – I’ve paid my employees but I haven’t had any pay myself – we always make sure our employees are paid and my business partner and I have gone without pay – that wasn’t for a week either, that was for a couple of months.

Unlike the previous example, this employer employed staff on a permanent basis thus providing them with job security, but experienced the problems inherent in

fluctuating cash flows by personally going without pay. The problem, as viewed by participants however, was not as simple as ensuring that enough work was available to keep workers busy and cash flowing within the business, it also involved the ability to find suitable and productive staff. This problem was mentioned by most participants. A participant who chose “depressed”, “powerless” and “hopeless” during the word sort exercise said,

> Well at the moment my business is in a situation where because I can’t get staff - I can’t get mechanics and I desperately need at least one, I’m imploding. There is no light at the end of the tunnel, there is just a big brick wall and I’m powerless to do anything about it.

The issue of finding and keeping good staff, identified as a “critical bottleneck” by Mazzarol (2003, p. 27) was seen as a particular problem for these small businesses for three reasons, their distance from major urban centres, competition from larger businesses and a smaller pool of suitable people to employ.

Participants felt that their distance from the big Australian cities of Brisbane, Sydney and Melbourne put their regional small businesses at a disadvantage in terms of competing for quality staff;

> If you were in Melbourne or Sydney you could get $80-90 thousand [per annum], we simply can’t pay that money… so if we paid these people that sort of money we would have a broker fee that would cost clients $1000 and people would say ‘get stuffed- I’m not paying that’.

In addition, if the small business was part of a national group of small businesses or a franchise, there was an additional traveling factor involved in successful operation, which inevitably impacted on the personal life of the participant,

> Being part of a national group, we spend more time traveling to Brisbane e.g. for meetings. I will be away for business a total of ten nights over the next three months. Colleagues in the capital cities will still get to go home to their families every night.

In addition, competition from larger businesses who can afford to pay workers much larger salaries, leaving small regional businesses in a place where they cannot compete for talented workers was seen as a problem for participants:

> The mines come along and say 'we want you to work in the back of 'Woop Woop'. We know that we can't get you unless we pay you big money – you are being paid $20- per hour now working in [*name of city*]. We will pay you $50- per hour. We will supply you with a house; we will supply you with food so we'll feed you and clothe you'.
> Fifty dollars per hour! They are on the next plane. They're gone! And that is happening right across the trades".

The third challenge, articulated by those involved in trade businesses, was a perception that fewer talented people were choosing trade career paths:

> [this has been happening] since the government brought in the idea that we need a very smart country and everyone's got to go to uni – people don't become mechanics – People don't go in for trades.

However the problem of recruiting suitable staff did not appear to be restricted to trades and only one owner/manager had no problem recruiting suitable staff with exactly the right skills to grow the business. The business was recently established by two former employees of a major bank and its staff comprised former work colleagues of the owner/manager:

> The level we have come to now has been easy because everyone who works for us now, we have known personally. They are all ex [*name of bank*] bank. We were fortunate because we knew who were good

> operators and who weren't. Not too many business people would have the luxury of knowing how someone performs and knowing what their attitude is and their personality and whatever. So we've been most fortunate.

The experience of this last participant underscores the uncertainty faced by those who are not in the position to have previous knowledge of potential staff. Other participants indicated that as employers in small business, they experienced a great deal of uncertainty when their business grew to the extent that they needed to employ staff. In spite of the fact that Leiter and Maslach's (1999) discussion of mismatch in the control area of worklife focused on employees in relationship to their superiors, participants' revelations of their vulnerability when employing staff was reminiscent of this. Leiter and Maslach discussed control in terms of workers having insufficient control over resources needed to do the work, and furthermore lacking authority to pursue what they believe to be the most efficient manner of doing the work. In the case of these employers in small business, the important resources were their workers who were central to owners' business success, yet there are forces outside of the control of business owners; these forces combined to create situations where participants' plans for their businesses were jeopardized:

> I can't grow the business. My ambition was to have it three times the size of what I've got now. When I moved into that shed there was room for three mechanics and one apprentice to operate and my ambition was to expand into that. I was hoping that it would get to the stage where it was absolutely too small. Instead of that I've got a situation where I am working on the floor myself in grease and muck fixing cars. I had promised myself that I wasn't going to be in that situation at my age.

Participants also spoke of lack of control over circumstances whereby workers had to be hired in the first place; the following dialogue is between two

owner/managers and outlines the role of Government legislation, with mandated compliance practices, in shaping the growth of a business from micro to small business in order to remain viable:

> *Owner Manager 1*. We've actually looked at where we're going in our business, and when [*name of partner*] and I had it on our own as a partnership – we were doing quite well and then the Financial Services Reform Act (2001, Commonwealth Consolidated Acts 2004) came along and it changed all that. We simply could not do it with the two of us – it was a physical impossibility. Too much paperwork, the demands – we had to employ people to fulfill government requirements. The moment we did that – we had to get bigger so we could pay the people we were employing. We then went into the spiral of having to get bigger. Then when you get bigger you think, 'well hang on, you've got to employ another person because the workload's got so big' and you're on this bloody train.
>
> *Owner Manager 2*. The other problem you've got too is, [when] you're small - you've got small overheads, and you get bigger and you come to this level and you've got bigger overheads but you've still got the small income and that's where I am. I need to get to $1million per year turnover to get anywhere.
>
> *Owner manager 1*. Exactly – you've got the same problem we've got - we are in the wrong turnover and the next step – from here to there is the hard part to do – to move from here to there. To get to the first $500,000 per year isn't all that hard to do - its hard, but its not breaking – but to get from $500,000 to $1million – Man Oh Man that's hard!

This dialogue would suggest that some people who have previously been self employed in a micro business capacity may well have been placed in a position where they have had to expand their business in order to meet government compliance and accountability provisions and to sustain a particular income level. Mandatory extra paperwork and the necessity to employ extra people in order to

ensure that the paperwork was done therefore introduced another level of control problems (Leiter & Maslach, 1999) for these managers. This observation has some consistency with findings reported in Timms, Graham and Caltabiano (2007) where it was noted that teachers reported that government legislation introduced a great deal of extra paperwork in addition to their normal duties, thereby placing them in a situation of enormous strain by an increase in workload and an inability to control their working lives.

In her discussion of the mutual understandings of the reciprocal expectations brought into relationships between managers and employees Rousseau (1995) saw the psychological contract as an evolving process with both parties "filling in the blanks along the way" (p. 7). There was evidence in the interviews that participants did have the key expectations of their employees of performance, production and loyalty. Related to the issue of finding suitable staff was the disappointment and 'fall out' when it was discovered that a staff member had been employed who was unsuitable and therefore constituted a threat to the ongoing success of the business:

> She has gone and we are still looking for the time bombs that are going to be there that we haven't found- we know they are there but we simply don't have the capacity to go through the files – there are 2,500 clients – it can't be done – its just impossible to go through every page …that's an anxious situation that we have to try to cover.

The universal norm of psychological contract is reciprocity (Rousseau, 1995); this implies understanding and trust. Employers in this study expressed dismay at evidence of disloyalty of staff members often evident on the occasion of a sudden resignation, which is seen as a betrayal in this dialogue between two participants:

> (1). Thousands and thousands of dollars we put into K. – and it's not just a financial investment, it's an emotional one as well – the emotional investment is more than the money.
> (2). You're quite right – you know R. real estate – they had 4 employees who have now come over to the firm I am working for. I know them quite well, he [*the business owner of the other firm*] had a shot at me about the staff coming over (A lot of people think I have more influence than I have). He was almost in tears at the amount of work, money and time that they had invested in these people who at the drop of a hat came over to the firm I work for – I hadn't really thought about it.

Mazzarol (2003) found that the critical point for small business growth was the location, inspiration and keeping of good staff. Participants supported this finding, and pointed out that staff training and education represented a substantial business outlay which, in many cases, provided no ultimate benefit because of staff turnover. One participant expressed a sense of having been 'set up' by such an employee, who had until the very last minute, indicated her intention of becoming a partner in the business:

> What hurts is – the same employee indicated that she wanted to eventually buy into the business on the Friday business meeting at [*name of restaurant*]. We were negotiating an arrangement - we asked, 'you are buying in'?
> She said, 'yes, definitely'.
> Then the following Wednesday she informed us that she wouldn't be able to afford to do it. Then Friday morning she 'dropped it' that she had got another job with an international broker – there is no way you can do that in a day and half in the insurance industry (they search you out, they check you out etc.), without it being set up before hand. That's what hurts, being set up.

Within this comment is a sense of breach of the psychological contract (Rousseau 1995). In this case, a conflict of values (Leiter & Maslach, 1999) between the

aspirations of the employer who thought that the employee was 'buying in' to the company (thus ensuring its future growth) and those of the employee, who perhaps wanted job security and was concerned about the risk involved in 'buying in' to the company. It could be that these concerns had not been communicated for any number of interpersonal reasons. However, the psychological effect of this particular experience on the employer/manager may well include an unwillingness to be in this position again.

There was however, evidence from participants that employee turnover often had its roots in circumstances beyond the control of the employer and the workplace, thus exacerbating the feeling of being on the edge:

> *Participant:* I live in fear every day of losing my mechanic – the one I've got. He comes from [*name of town, 100kms away*], his wife comes from [*name of town*] – her whole family lives down there. His mother and step father live here, he's just had massive problems trying to find a rented house to live in, so he was seriously thinking of transferring to [*name of town*].
> *Interviewer*: So you're finding that scary?
> *Participant:* Yes – it is scary – and it's still scary even though he has found a house, because he's only renting, so in theory I've got him for another six months.

2.4.2 Theme 2. A sense that running one's own business can provide satisfaction and that it is personally rewarding.

The psychological contract (Rousseau, 1995), and its key role in a small business in regard to reciprocity was mentioned by participants in regard to their employees in terms of a harmonious work community:

> *Participant.* Yes well having said that X was a miserable failure. T the new girl on the front counter, she is just wonderful, she is so nice to have

around, and she exudes ‘niceness’. She knows her stuff, she’s funny, she’s got a witty sense of humour. It really helps. S. would love to be a ‘woe is me, I fell out of the apple tree’ person but T won’t let her. We were sitting there today having our meeting and S. was on about something, T said ‘You fall out of the apple tree again?’, she said, ‘put a smile on your face – the world’s not that bad’[*Laughter*]. I was sitting there laughing away to myself thinking, “this is so good”. She is fantastic and she’s very encouraging and all that – she’s good value, really really good value!

Interviewer. I think it is interesting how you said that T is encouraging and you find that really fantastic.

Participant. She is and it’s fantastic!

Interviewer. But you are her boss and she is encouraging you?

Participant. What I find is enthusiasm, encouragement, positiveness [sic] whatever you call it – it breeds on itself.

A key component in much of the literature is the central role played by management in the development of community within an organisation (Mayer & Davis, 1999). Another participant (an employee/manager) whose word choice included ‘rewarded’ said:

Participant: I feel rewarded in that people are friendly and nice and I am very optimistic that this business will grow into something that is really successful.

Interviewer: What do you put all that down to?

Participant: Um, I think, its support – there is a lot of support in here- we try to work as a team and support each other – I support X [*employee*] and she supports me and DDD [*employer*] is very supportive.

Interviewer: What do you appreciate about this job that you haven’t had before?

Participant: He’s [*the employer*] not just focused on the job, he sees the people and appreciates their work. Like a couple of weeks ago he saw that I was doing extra hours and the next day there was a book of movie

> tickets on my desk. He just showed his appreciation for what I am doing – You'd do ANYTHING for someone who is appreciative like that.

Community was also mentioned in regard to flexibility and 'give and take' within the work environment:

> Yeah, well I've got, without sounding too – I don't know what the word is for it, but I think we are good people to work for, we are not, you know, stand over their shoulder, cracking the whip, we're flexible people, we are fun to work with and like a bit of a laugh. If they have to go early one afternoon, that's fine, because they stay back and work beyond five at different times. So we're very flexible. We are looking at building a bonus system into their salaries so they are part of the business success as well. The important thing is to make them feel part of the team.

Leiter and Maslach (1999) identified community as an aspect of worklife which could contribute to the engagement/burnout syndrome with social support from supervisors, management and co-workers a central element in 'buffering' the relationship of work demands and burnout.

Another important element in engagement of participants in their work was the sense of achievement and satisfaction in running their own business as illustrated in the following exchange between the interviewer and a participant in regard to the choice of the word 'rewarded' in the card sort exercise,

> *Participant:* Yeah, very rewarded – compared to um .. up to two years ago when I came into the business. I was sort of working in a bank, it was monotonous, day after day, same sort of thing. On a salary .. you got your pay packet and your wheels stop going if you know what I mean, it didn't give you a real lot of satisfaction.
> *Interviewer:* So the satisfaction you feel comes from?

> *Participant:* Being rewarded, by having our own business and the opportunities for us in the future of building a successful business and the fruits of that.
> *Interviewer:* Where exactly are the rewards coming from, are they financial, or relationships or success or feeling in control or what?
> *Participant:* Um.. probably from the lot, probably the whole business everything. I mean, in control .. um We've built a very good business model here on how we do business. We've got some great systems and processes and we are committed to making the client's experience a happy one. That just builds the business further. As far as 'In control', I'm reasonably in control as a person. Our business is in control. I could probably give you a story for every single one of these [*indicates the cards*], and going on the success we have had to date and going forward, I am very rewarded that we've stumbled across a great opportunity and we've worked hard to get it going.

The sense of satisfaction and optimism from running one's own business, and being in the position where success is very much dependent on one's own efforts was reflected by other participants, including one who chose to discuss the word 'enthusiastic':

> Because I am the eternal fisherman and I do believe that things work out, I am enthusiastically looking forward to that happening because I do believe that it will work out. I am always looking for the horse if I have a big pile of horseshit. Because if you don't encourage yourself with enthusiasm, you get depressed and I don't want to be depressed.

Other owner managers supported the sense that they played a key role in their own business success and recognised the leadership role they played within their businesses:

> I run a staff of about 15 people so I need to be positive, I need to be enthusiastic, because they follow my lead. If I'm not those things, then they won't be those things.

Another viewpoint raised by participants was the necessity to have a complete break from work from time to time, in order to recharge energy levels to sustain their leadership role. Activities pursued during these breaks included physical exercise such as canoeing and running. One participant mentioned the enjoyment of flying small aeroplanes, "once a year I go flying for a week. I went to the Kimberleys for 10 days; it's just out of this world! Its great, you feel so released!"

Another participant used time off from work to build a shed:

> My whole world was there, I was back fitting. The first day I was thinking "I could have stayed in this career", but by the time I finished I was saying "No bloody way" [*laughter*]. But it was fantastic, I felt great, I REALLY felt alive! What's happened is I've come back here – to a certain degree recharged.

Simply taking a day off to stay in bed was also seen as a way of achieving balance and restoring energy levels to sustain the need to 'push' oneself, although it appeared necessary to give it a label to avoid creating an impression of laziness:

> Because I have had Ross River Fever, you've got to have a label, you call it 'Ross River day' and that gives you an excuse to take it easy for the day. I can put it in a box, not worry about it, and have a rest.

The refreshing nature of activities that are completely different to one's normal work activities and their capacity to insulate the individual from the development of disengagement is consistent with the work of Sonnentag (2005). Sonnentag emphasized the important of restorative detachment from work in order to protect the individual's emotional and physical reserves.

2.5 Theme 3. Manifestations of burnout

Two participants told the researcher that they 'had burnout' and indeed they displayed evidence of emotional exhaustion, distancing from the business and a sense of helplessness about their situation (Maslach et al., 2001). One was an owner/manager in a micro business and one was an employee/manager in a small business. The micro business owner was experiencing major problems attracting qualified staff and has been cited earlier in this paper. This problem was exacerbated by some unfortunate experiences with apprentices:

> In the last 18 months I've had eight apprentices – and I've sacked the lot. They are just not interested, they want the money to have cars (some of them) they don't want to learn the trade, when they do come to work they don't want to work.

The participant was worried about the future of his business, admitted to 'feeling hopeless', and had plans in place for the sale of the business. However some strategies for improvement had recently been implemented. A significant one had been the employment of an office assistant to complete all the general duties and paperwork associated with running a small business;

> Yeah it has relieved a lot of my workload – in five years she'll be burnt out too, but anyway that's not my problem. I now do half of what I always did; on the admin [sic] side she does the majority of it.

Primarily this participant discussed burnout problems originating from mismatches in workload and control. The fact that he was prepared to distance himself from the potential burnout of his office assistant was problematic, however towards the end of the interview he noted that his own state of mind affected the tone of the workplace,

> ‘depression’ breeds on itself. I know I go to work and I’m ‘depressed’ and the whole place takes on the same thing. I think that might be why people don’t answer my ads in the paper – because the negative vibes flow through wherever!

By contrast, the employee/manager outlined problems of having been employed as an expert in the field but denied autonomy to run the business in the most effective and productive manner:

> The three words that I have chosen are ‘frustrated’, ‘stressed’ and ‘resigned’. I’m resigned to the fact that he [*the employer*] will say ‘no’ to everything, even though my ideas will really work for the labourers and the business he will say ‘no’. This changes the way that I think about broaching anything to him. It’s a very negative way for me to think, but anything that involves him handing out any kind of money or whatever, he will say ‘no’ to. That’s very frustrating –it’s like a ‘push me pull you’, constant rebuttal. That stresses me out. I get extremely stressed. I can see growth areas – I know my industry like the back of my hand, I’ve been in it since I was a young girl so I know what I’m doing. He does not know [*name of industry*] at all, he’s an accountant. So he has employed me as a manager to run this side of his business but he micro manages and doesn’t give me enough rope to run it properly.

The unresolved work situation was impacting on the health of this participant to the point where it was affecting her health and creating a situation of emotional exhaustion,

> I haven’t slept properly for the last two weeks – I’m exhausted. I know when I’m stressed because I get little ulcers in here [*points to her bottom gum*], little tiny mouth ulcers, first sign of stress. They just start popping up and they’ve started to pop up again in the last week.

A key disappointment for this participant was a feeling of being 'in the middle' and lacking in support from the people within the workplace community:

> Yeah, it's like, it comes from your boss, it comes from your workers and it comes from your clients as well. It's from all sides so I have to wear all those 'unhappinesses' [sic].

Problems in control were illustrated by the fact that no procedures were in place for the systematic replacement and maintenance of necessary equipment;

> … its very exhausting and frustrating because we need new tools, we need new plants, we need a lot of things to operate and so I'm constantly juggling a little bit of money to get those things. I'm 'scabbing' off our nursery, you know what I mean, to get what I need to keep the [*name of industry*] business going. It's frustrating when you know where the money is going and you've to manage on not enough to keep it going well. It's frustrating.

Although this participant loved the industry she worked in, "oh, I really would love my job if a few things changed", she felt unrewarded, emotionally and financially in her present position,

> I also need to consider that for me, I feel completely unrewarded, for all that I do, for the level of what I do and for what I have achieved for him. And in addition I am underpaid.

The feeling of being unrewarded led to a crisis in fairness as illustrated in this exchange between the participant and the interviewer who asked if the participant had approached the employer with regard to her concerns,

> *Participant.* Um …. Not directly. Not 'I want another $20,000 per year, otherwise you will lose me'. I want a laptop computer so I don't have to drive from [*suburb at north of city*] to [*suburb at south of city*] 5 times

> per day and waste 5 hours everyday driving around. These are the things that frustrate me. A laptop computer … God, it's a simple modern piece of equipment, that would save so much time!
> *Interviewer.* You have asked for one?
> *Participant*. Yep – I got a 'no'. Ah…. I once asked for a pay rise. I got 15 cents per hour. It comes to $255 per year – Hey come on, it's insulting!

Clearly this participant had expectations of her work experience that deviated from the reality. The terms of her initial employment as a manager with autonomy to run a particular section of the business clashed with the reality of micromanagement on the part of her employer. She found herself in a chronic and distressing situation, experiencing mismatch in control, community, reward and fairness (Leiter & Maslach, 1999). The consequent deterioration in her worklife led inevitably to the burnout experience where she felt emotionally exhausted, alienated and powerless in her work situation.

2.6 Conclusion.

The current study was conducted to determine if the salient issues associated with the psychological contract (Rousseau, 1995), six areas of worklife (Leiter & Maslach, 1999), engagement (Schaufeli & Bakker, 2003) and burnout (Maslach et al., 2001) were applicable to relationships within small and micro business in a regional centre. It was further anticipated that data from these small business participants may well inform survey construction for the next phase of the research project, by highlighting areas where there may well be a difference in experiences between people working in large businesses and those working in small businesses.

Findings from the current study have tended to illustrate key aspects of theoretical constructs. However, at least in the case of micro and small business, they have also illustrated that the six areas of worklife model (Leiter & Maslach, 1999)

applies to the experiences of owners and managers of organizations as well as employees. What has been achieved by this study is a snapshot of the human face of workplace dynamics within the small business environment. Unfortunately the portrait painted within the current research has, apart from the three employee managers, failed to capture the point of view of those who are employed as workers within small businesses. However it has highlighted the vulnerability of small business owners and managers in a regional centre of Far North Queensland to the development of burnout. This vulnerability stemmed largely from workload and control (Leiter & Maslach) issues. The study has also highlighted participants' noteworthy capacity for resilience, a feature of work engagement (Schaufeli & Bakker, 2003).

One outcome of this research has been the realization that it is necessary for the researchers to make provision for people to identify themselves as micro or small business employees in the workplace survey which follows this phase of the project. This will provide these people with a greater capacity to provide their perspectives in a way that ensures their anonymity. In addition, it has alerted the researcher to the need to ensure that participants are provided with the opportunity to indicate whether they work in a regional, rural or metropolitan area, as it is quite possible that the experience of micro and small business owners and workers is different in these areas. Thanks to information gained from participants in the small group interviews it will now be possible to capture these data from survey respondents. It is posited that the current study has highlighted how vital workplace relationships are to the continued stability and viability of micro and small businesses. These relationships are a very important key to business sustainability within a significant sector of the Australian economy.

Chapter 3.

‘I just want to teach’. Queensland independent school teachers and their workload

Note: The content of this chapter was published in the Journal of Educational Administration and its citation appears below. It is noted that the three authors that appear in the citation are the PhD candidate and her two supervisors. Supervisors’ roles in the production of the manuscript were advisory and editorial. Although formatting of the paper has been changed from the Harvard system used by the journal to the APA system adopted in the current thesis, the structured abstract required by the journal has been maintained. References for this paper have been incorporated into the larger dissertation reference list.

Timms, C., Graham, D., & Cottrell, D. (2007a). I just want to teach', Queensland independent teachers and their workload, *Journal of Educational Administration, 45*(5), 569-586.

Abstract

Purpose

The present study seeks to elucidate observed mismatches with workload in teacher respondents to a survey exploring aspects of the work environment.

Participants and Methodology

This phase of the study constituted a pen and paper survey of 298 currently serving teachers in independent schools in Queensland, Australia. Measures used in the research included the Areas of Worklife Survey (AWS), which identifies matches or mismatches between the worker and organisation on six areas of worklife, the

Oldenburg Burnout Inventory (OLBI), and the Utrecht Work Engagement Scale (UWES).

Findings

One sample *t* tests revealed respondents reported significantly higher matches in the control, community, fairness and values areas of worklife than previously surveyed populations, whereas they reported no difference in reward, and significantly more mismatch with workload. Respondents reported significantly higher levels than previously established norms on the OLBI dimension of exhaustion, but similar levels of disengagement. Responses to the UWES revealed significantly higher dedication and absorption and lower vigour than previously established norms. In addition, respondents reported working long hours in order to fulfill all obligations. Expansion of the quantitative data with respondent comments indicated that teachers working independent Schools in Queensland have reached a level of workload that is unsustainable and which constitutes a serious risk to their mental and physical health.

Originality/Value

This article pinpoints the many reasons why demands made on teachers have extended to a level which is making their work unsustainable and will be of interest to those involved in the teaching profession.

Key words

Teachers, Job satisfaction, Grievances, Stress, Australia, Workplace

Paper type

Research paper

While most teachers find their work extremely satisfying (Hakanen, Bakker and Schaufeli, 2006, Timms, Graham and Caltabiano, 2007), it is acknowledged by many

researchers that teaching is a stressful occupation (e.g. Friedman, 2000, Howard and Johnson, 2004). Hargreaves (1998) regarded the need to perform as being an integral component of an occupation which, of necessity, demands a form of emotional labour in its day to day execution.

> Teaching involves immense amounts of emotional labor. Not just 'acting out' feelings superficially like pretending to be disappointed or surprised but also consciously working oneself up into a state of actually experiencing the necessary feelings that are required to perform one's job well (Hargreaves, 1998, p. 840).

Therefore, the emotional labour of achieving a consistent and sustainable level of performance in day to day interactions with children is something that teachers expect within their normal working day, in the same way actors would expect to simulate emotions for realistic performance (Leiter & Maslach, 2004). Rice (2005) observed the emotional nature of teachers' work and further commented that the bulk of it occurs within their own classrooms and therefore within an autonomous work situation. However, according to Rice, embedded within this isolated autonomy was a major source of uncertainty that created vulnerability to negative community feedback for teachers.

Easthope and Easthope (2000) provided examples of intensified teaching workload. These included the expansion of student teacher ratios due to understaffing and different tasks being added to the teacher's workday, many of which were administrative in nature. Howe (2005) observed that while the trend to longer working hours was a product of labour market deregulation and widespread within Australian workplaces, the phenomenon was most evident within education. This was due to poor resources to fund changes and resultant increased workloads for the teachers expected to implement them. The Queensland Independent Education

Union (QIEU, 2005) reported that members experienced “increased content of jobs (often through understaffing), less time for rest breaks, balancing more simultaneous demands, deadline tightening and the concept of working until the job is done” (p. 1). An example of the latter is mandatory paperwork which is legally required of teachers as accountability measures. Time that is necessary to complete this paperwork is not factored into the school day (Howe, 2005). In addition, Timms, Graham and Caltabiano (2007) and Gardner and Williamson (2006) observed that school reforms often overlap, leaving teachers little time to assimilate and adjust to changes before another change begins to impact on their lives. Finally, Fink (2003) noted the impact on teachers of increased ‘social work’ responsibilities and the integration of students with special needs into ordinary classes without necessary resource and professional development provisions.

Erickson and Ritter (2001) forewarned possible serious health consequences for those whose continuous experience of being at work required hiding feelings of agitation. Time filled with bureaucratic tasks peripheral to the main business of the individual, could well constitute an example of such emotional labour. Research suggests that teachers in many countries have become overloaded by external agendas which intensify the quantity of mandated work with increased accountability measures. This has been demonstrated in education systems in Canada (Fink, 2003, Hargreaves, 1998, 1999; Hargreaves & Fink, 2003), United States of America (USA) (Tye & O’Brien, 2002) and Australia (Dinham & Scott, 2000; Gardner & Williamson, 2006; Howe, 2005; Scott & Dinham, 2003; Timms, Graham and Caltabiano, 2006, 2007). Teachers who experience this process invariably show a compromised capacity for sustaining the emotional nature of the work (Hargreaves, 1998). If an employee found themselves in a place where work had to be taken home

in order to fulfill and sustain a professional standard, opportunity for restorative psychological detachment from the job would not be possible (Sonnentag, 2005;Sonnentag & Kruel, 2006). Sonnentag and Zijlstra (2006) warned “continuous depletion of resources will lead to negative load effects (e.g. fatigue) and, ultimately, in the absence of recovery, to exhaustion, losses of function, and physical and mental impairment” (p.330). Connections have been drawn between burnout and cardiovascular disease, stroke (Melamed, Shirome, Toker, Berliner & Shapira, 2006) and depression (Smith, Roman, Dollard, Winefield & Siegrist, 2005).

Consequently, government reform agendas which intensify the quantity but not the quality of work performed by teachers have the capacity to erode teachers’ sense of mastery of their craft (Hargreaves, 1998), increase tension within the workplace, diminish individual satisfaction (Scott & Dinham, 2003), increase exhaustion (Demerouti, Bakker, Vardakou & Kantas, 2002) and reduce the amount of energy the person has to do the job (Schaufeli & Bakker, 2003). A recent report by QIEU (2005) underscored a striking incongruity between values articulated by those who employ the largest group of its members (Australian Catholic Commission for Employment Relations [ACCER], 2002) and actual experience. While ACCER acknowledged the importance of achieving a balance between work and life for their employees, the reality, according to QIEU, encountered by teachers in independent schools would indicate potential poor support for these teachers.

Burnout as defined in this study comprises two dimensions: exhaustion and disengagement. Exhaustion is an emotional, cognitive and physical experience of being over extended and overwhelmed (Demerouti et al., 2002, Halbesleben & Demerouti, 2005) and is the basic stress experience for the individual. Disengagement is a feeling of distancing from and devaluing of the work experience

(Demerouti et al.). Workers suffering from disengagement will become negative about their work and the people associated with it. Sonnentag (2005) suggested that disengagement is a ‘coping strategy’ which follows the experience of extreme exhaustion, but is nevertheless part of the burnout experience. Engagement (the assumed opposite of burnout) on the other hand comprises three dimensions: dedication, vigour and absorption. Dedication is strong involvement in one’s work and a feeling that the work is significant and challenging. Vigour is characterized by high levels of energy, mental resilience and willingness to expend energy in one’s work. Finally, absorption is characterized by a sense of full concentration in work and of being fully occupied with it to the point that time will pass without one noticing it (Schaufeli & Bakker, 2003). Incidentally, the absorption construct is reminiscent of the more complex concept of ‘flow’ which also has a component called ‘absorption’ (Schaufeli & Bakker, 2004).

In view of previous studies which have indicated a close relationship between workload and negative outcomes for teachers (Dinham & Scott, 2000; Fink 2003; Hargreaves, 1998, 1999; Hargreaves & Fink 2003; Scott & Dinham, 2003), it is the aim of this study to establish an understanding of the relationship of workload (Leiter & Maslach, 2006) to burnout (Demerouti et al., 2002) and/or engagement with work (Schaufeli & Bakker, 2003). It is hypothesized that high workload is negatively correlated with the engagement measures of dedication, absorption and vigour, and positively correlated with the burnout measures of exhaustion and disengagement.

3.1 Method

3.1.1 Participants

Participants were teacher respondents to a pen and paper survey randomly distributed to 1000 members of the Queensland Independent Education Union (QIEU) early in

2006. According to the Independent Schools Council of Australia (ISCA, 2006), this sector (the non government school sector) caters for the education of 33% of primary and high school students in Queensland. Within the independent sector Catholic schools account for 20% of Queensland students and other organizations, mostly religious denominations (ISCA) educate the remaining 13% of Queensland's school students not educated within the government system. QIEU has 10793 teacher members, who represent about 60% of teachers currently serving in independent schools in Queensland (personal communication, QIEU, 25 September, 2006).

Another phase of the survey collected online responses from workers in other industries. The pen and paper teachers' phase achieved a response rate of 30% (n = 298) from QIEU participants. There were 83 (28%) men, and 215 (72%) women respondents. Respondents' mean age fell within the 45-49 year age group. Table 1 outlines employment status of participants. It is noted that P-12 schools cater for students from pre-school to grade 12, and of the 'other' category, two teachers had set up their own businesses coaching students with their school work and one teacher had been temporarily seconded to the Queensland Studies Authority (QSA, 2006).

Table 3.1. Employment status of participants by School

			Employment Status				
			Permanent full time	*Permanent part time*	*Contract*	*Casual*	*Total*
School Type	Primary School	N	68	16	18	2	104
		%	65.4%	15.4%	17.3%	1.9%	100.0%
	High School	N	131	12	8	2	153
		%	85.6%	7.8%	5.2%	1.3%	100.0%
	P - 12 School	N	18	3	0	0	21
		%	85.7%	14.3%	.0%	.0%	100.0%
	Kindergarten/ Pre School	N	8	4	0	0	12
		%	66.7%	33.3%	.0%	.0%	100.0%
	English Language Schools	N	1	3	0	1	5
		%	20.0%	60.0%	.0%	20.0%	100.0%
	Other	N	3	0	0	0	3
		%	100.0%	.0%	.0%	.0%	100.0%
	Total	N	229	38	26	5	298
		%	76.8%	12.8%	8.7%	1.7%	100.0%

3.1.2 Materials

The survey had a number of quantitative components which are summarized in Table 3.2.

Table 3.2. Measures used in the survey instrument

Name of Measure	*Number of Items*	*Source*
Self Rated Health	1	Ideler and Angel (1990)
Six Areas of Work Life Survey (AWS)		
• Workload	6	
• Control	3	
• Reward	4	
• Community	5	Leiter and Maslach (2006)
• Fairness	6	
• Values	5	
Utrecht Work Engagement Scale (UWES)		
• Dedication	5	
• Vigour	6	Schaufeli and Bakker (2003)
• Absorption	6	
The Oldenburg Burnout Inventory (OLBI)		
• Exhaustion	8	Demerouti, Bakker, Vardakou and Kantas (2002)
• Disengagement	8	

Leiter and Maslach (2004, 2006) suggested that discrepancy between the individual and the organization and consequent development of engagement or burnout occurred within the context of one or more of six areas of worklife. The Areas of Worklife Survey (AWS) matches and mismatches on: workload (the amount or quality of work to be done in a given time); control (workers' ability to contribute to decisions that affect them); reward (social and financial acknowledgement of contributions to the work); community (the quality of the social environment of the workplace); fairness (level of consistency and equitable treatment of people in the workplace) and values (what is important to the organization and the people who work for it). The Oldenburg Burnout Inventory (OLBI) has been recently translated into English after extensive testing with participants in the original

German language (Halbesleben & Demerouti, 2005). It was chosen in preference to the more well known Maslach Burnout Inventory (MBI) (Maslach, Jackson, Leiter & Schaufeli, 1996) because copyright issues made it impossible to legally reproduce MBI questions in a survey document or online. The English version of the OLBI has achieved good validity and reliability comparisons with the MBI (Halbesleben & Demerouti).

Participants were asked to indicate length of time spent on work tasks in a normal week at school and at home. In addition, a half page was provided for participants to comment on any issue that was important to them.

3.1.3 Distribution

Distribution of the survey was facilitated by QIEU staff. Surveys were included in a union mail out to a random sample of union members in early 2006. A total of 298 (30%) completed surveys were returned to researchers by direct post in an enclosed stamped addressed envelope.

3.2 Results

3.2.1 Quantitative Results

Table 3.3 compares survey respondent means, standard deviations (SD), and Cronbach's alphas for quantitative data with those of previously tested populations.

Table 3.3. Means, SD, and alphas of survey variables compared to previously normed data

	N	Survey Means	Survey SD	Means Previously established	SD Previously established	α present survey	α Previously established	One Sample t test
Workload	293	2.35	.75	2.87	.84	.77	.76	-11.91***
Control	296	3.61	.74	3.36	.89	.72	.69	5.81***
Reward	297	3.16	.86	3.20	.89	.84	.82	-.80 (ns)
Community	294	3.66	.75	3.20	.93	.85	.82	10.44***
Fairness	290	3.07	.83	2.84	.83	.85	.82	4.42***
Values	293	3.65	.70	3.42	.72	.77	.72	5.60***
Dedication	293	4.33	.87	3.91	1.10	.87	.89	8.27***
Vigour	293	3.85	.74	3.99	1.11	.79	.84	-3.18***
Absorption	294	3.93	.74	3.58	1.18	.76	.79	7.99***
Exhaustion	296	2.59	.45	2.32	.58	.81	.73	10.26***
Disengagement	294	2.59	.32	2.23	.68	.79	.83	1.10 (ns)
Stanford General Health measure 1 item only	298	2.27	.88	3.29	.91	-	.92 (test-retest)	-19.93***

Note 1. Critical value for one sample t tests was set at .004 with a Bonferroni adjustment (t value > 2.888)
Note 2. *** p <.001

One sample *t* tests were conducted comparing respondent means with previously established population means and are displayed in Table 3.3. For the purpose of decreasing the risk of family wise error in this bank of *t* tests the critical value was set at .004 with a Bonferroni adjustment. Many *t* tests proved significant, with survey respondents reporting higher dedication and absorption compared to other populations (Schaufeli & Baker, 2003). Of relevance to the current paper is the observation that survey respondents reported significantly more mismatch on workload (Leiter & Maslach), significantly higher exhaustion (Demerouti et al., 2002) and significantly lower vigour (Schaufeli & Bakker, 2003) than did the

samples previously tested with these measures. It is also noted that respondents in the present survey reported significantly better health than did previous samples (Ideler & Angel, 1990). With regard to all variables measured on the AWS, exhaustion (OLBI), and vigour (UWES), tests for differences between males and females, age groups, occupational level and types of school did not reach significance indicating that teachers tended to experience these variables in similar ways. However significant differences were noted in means between the two largest groups of respondents in regard to the UWES scales of dedication and absorption when the critical value was set at .02 with a Bonferroni adjustment. These differences are outlined in Table 3.4 and suggest that primary school teachers experience more dedication and absorption in their work than do secondary teachers.

Table 3.4. Significant differences between Primary and High School teachers on Dedication and Absorption

	Scale for component items	School Type	N	Means	SD	*t*
Dedication (UWES)	7 point likert	Primary	103	4.64	.68	4.81***
		High	149	4.16	.89	
Absorption (UWES)	7 point likert	Primary	103	4.16	.72	4.59***
		High	150	3.74	.69	

Note 1. Discrepancies in numbers reflect missing data in data set.
Note 2. *** $p < .001$

Table 4.5 outlines Pearson's correlations for main study variables. The AWS (Leiter & Maslach, 2006) are listed first, then the 3 dimensions of the UWES (Schaufeli & Bakker, 2003), the 2 dimensions of the OLBI (Demerouti et al., 2002) and finally the hours per week spent working by respondents.

Table 3.5. Pearson's correlations indicating relationships between main study variables.

		1	2	3	4	5	6	7	8	9	10	11
1	WORKLOAD (AWS) (Reverse Scored)	-										
2	CONTROL (AWS)	-.28**	-									
3	REWARD (AWS)	-.26**	.51**	-								
4	COMMUNITY (AWS)	-.16**	.46**	.56**	-							
5	FAIRNESS (AWS)	.23**	-.58**	-.62**	-.62**	-						
6	VALUES (AWS)	-.10(ns)	.57**	.56**	.64**	.73**	-					
7	DEDICATION (UWES)	-.09(ns)	.44**	.41**	.36**	.42**	.56**	-				
8	VIGOUR (UWES)	-.18**	.47**	.36**	.31**	.40**	.46**	.72**	-			
9	ABSORPTION (UWES)	.19**	.23**	.22**	.21**	.26**	.36**	.65**	.59**	-		
10	EXHAUSTION (OLBI)	.62**	-.45**	-.38**	-.32**	-.36**	-.35**	-.35**	-.49**	-.08(ns)	-	
11	DISENGAGEMENT (OLBI)	.24**	-.46**	-.47**	-.43**	-.49**	-.55**	-.69**	-.58**	-.46**	.56**	-
12	TOTAL HOURS WORKED BY TEACHERS PER WEEK	.31**	-.06(ns)	-.05(ns)	-.02(ns)	-.03(ns)	-.03(ns)	-.01(ns)	.04(ns)	.11(ns)	.11(ns)	-.00(ns)

Note 1. AWS scales are usually described on a 5 point likert scale from Severe Mismatch to Extreme Match however for ease of interpretation of correlations, Workload has been reverse scored so that a high score on workload = high workload rather than Extreme Match.
Note 2. ** $p < .01$ (2-tailed).

3.2.2 Work Hours

Respondents indicated hours spent working at school and at home in a normal working week. For teachers with full time teaching loads (permanent full time and contract teachers (n = 251, mean = 52.17 hours, SD = 9.14) these responses were combined and categorized into four groups: ‘Normal Hours Employees’ (minimum to 40 hours per week, n = 6, mean = 34.83 hours, SD = 3.86), ‘Long Hours Employees’ (40 to 50 hours per week, n = 89, mean = 44.81 hours, SD = 2.83), ‘Very Long Hours Employees’ (50 to 60 hours per week, n = 103, mean = 52.76 hours, SD = 2.68), ‘Extremely Long Hours Employees’ (60+ hours per week, n = 53, mean = 65.39 hours, SD = 8.18). The groups are displayed in Figure 3.1. The first three categories were obtained from a Queensland Department of Industrial Relations (QDIR) report (2003), the fourth category was added for the purposes of the present study. Table 3.6 provides details of the roles played by these permanent full time and contract teachers within their schools and demonstrates that teachers at all levels worked substantially longer than normal working hours per week.

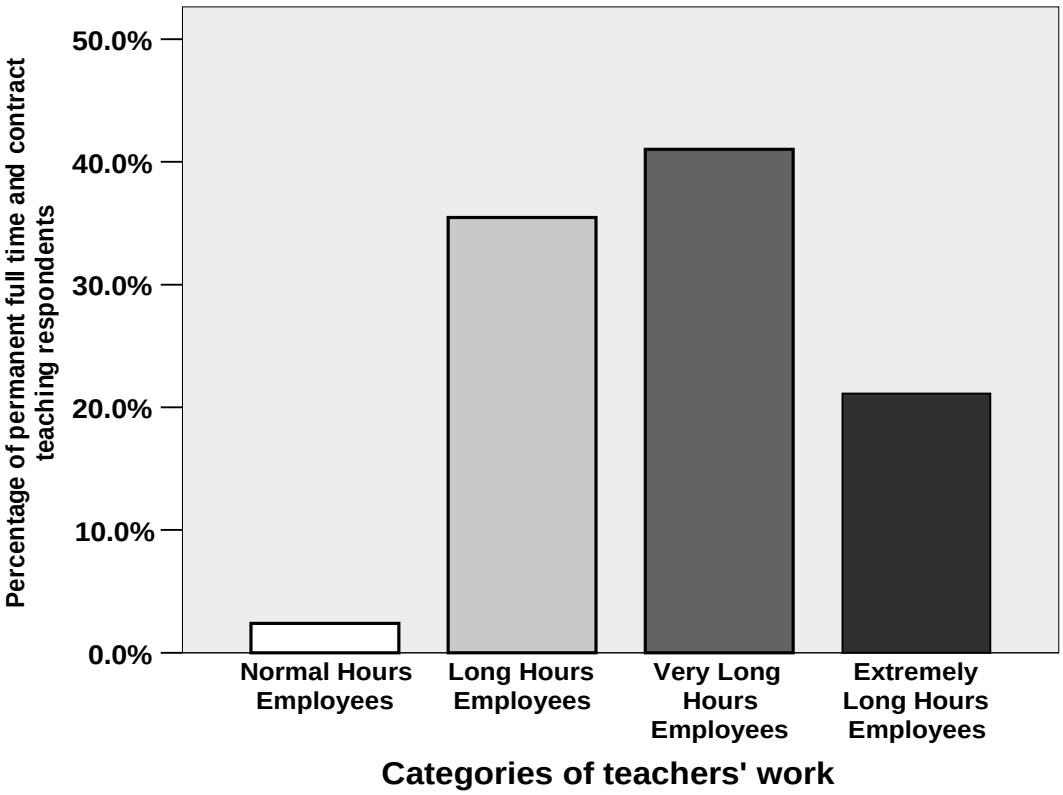


Figure 3.1. Hours worked by respondents (permanent full time and 'on contract', (n = 251) using QDIR report (2003) categories, the 'Extremely Long Hours' category was added for purposes of the current study.

Table 3.6. Work roles played by permanent full time and contract respondents (n=251) within their schools.

	Normal Hours Employees		*Long Hours Employees*		*Very Long Hours Employees*		*Extremely Long Hours Employees*			*Total*
	N	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*
Class Room Teacher	4	1.6	46	18.3	55	21.9	31	12.4	135	53.8
Head of Department (HOD) or Leading Teacher	0	0	14	5.6	11	4.4	6	2.4	31	12.4
Position of Added Responsibility (PAR)	2	0.8	13	5.2	29	11.6	11	4.4	56	22.3
Administration (Principal or Deputy)	0	0	6	2.4	2	0.8	2	0.8	10	4.00
Special Needs/ English as a Second Language (ESL) Support	0	0	4	1.6	4	1.6	2	0.8	10	4.00
Teacher-Librarian	0	0	2	0.8	2	0.8	0	0	4	1.6
Kindergarten Teacher/Director	0	0	4	1.6	0	0	1	0.4	5	2.0
Total	6	2.5	89	35.5	103	41.0	53	21.0	251	100.0

3.3 Discussion and qualitative results

The hypothesis that mismatches on workload would be negatively correlated with engagement met with limited support in the current study. High workload correlated negatively with vigour, indicating that this area of worklife impacted on the ability of individuals to sustain energy flows within their work. However there was a positive relationship between high workload and absorption, indicating that respondents tend to find their work so intrinsically interesting that they do not notice the passage of time, despite a reported mismatch in workload.

Hypothesized positive relationships between mismatch on workload and the burnout dimensions of exhaustion and disengagement were supported by significant correlations. Respondents indicated greater mismatch on the workload area of worklife than did respondents in previous studies (Leiter & Maslach, 2006). Unlike workload, other areas of worklife, such as control, community, values and fairness, rated highly with survey respondents in comparison to previously established norms, indicating that teacher participants in this survey tended to report matches with their work environment in these areas of their working lives. Consequently it is noted that respondents found that workload constituted the major source of dissatisfaction with their work environment. It is further noted that a previous finding of Timms, Graham and Caltabiano (2006) was not supported in the present study with men and women teachers reporting similar experiences on all burnout and engagement variables.

Eighty four percent of respondents worked long or very long hours as defined by the QDIR (2003). Gardner and Williamson (2006) found that teachers spent between 48.7 and 51.7 hours working on school work per week. Their research is

supported in the current study which found a mean of 52.17 hours (SD= 9.14) reported hours at work per week. The QDIR report found that employees who worked long hours had more flexibility and choice over when they worked. However, “the greater control they had over working hours under the guise of flexibility was in part a mirage, as their working hours were principally determined by their workload, over which they had very limited control” (p. 20).

The QDIR report provided an example of law firm professional employees who reported that they were under pressure to work long hours because of their workload, any ‘time off’ resulted in a greater sum of work to be completed the next day. This may explain an apparent anomaly with results in the present survey, respondents reported higher matches with the control aspect of their worklife as compared to previous studies. However questions relating to control in the areas of worklife measure (Leiter & Maslach, 2006) relate specifically to autonomy within the workplace, for example “I have control over how I do my work” and not to control over the amount and type of work they were given to do. Presumably participants in the current survey regarded the questions on this measure as relating to their particular classroom environments, over which they have a great deal of control.

3.3.1 Workload

Participants generally regarded their workload as increasing every year. Some saw this as possibly a feature of teaching in an independent school, an example of such a comment from a respondent was:

> What tires me out (after 30 years of teaching) is the EVER increasing tasks that are placed into my “teachers’ work wheelbarrow”. Never

> does anyone take tasks off, so the barrow gets harder to push, more TIME consumed, and often on tasks not directly related to face to face, classroom contact with children….In independent schools it seems admin believe they (and us teachers) must be "doing lots of different, extra things, because, after all parents are paying big $s [sic] and expect something special! (*male primary school teacher*).

Another participant commented along similar lines:

> My school puts too much pressure on staff. They try to make it that the school should become your life. A social life is not an option. All free time – even weekends needs to be given to the school as it is a Primary Boarding School. I will not stay at this school long because of this and that I am under appreciated (*female primary school teacher*).

This comment puts accountability for pressure on staff to participate in co-curricular activities onto those who administer the school. One respondent associated this pressure with an indication that it related to the religious affiliation of administrators:

> I was not told or prepared for the endless perceived necessity for meetings and last minute arrangements. I love being in the classroom and the planning but it is the expectation that I should happily rearrange my life to enable this that makes me question the professionalism of the job, or rather the administration. I know it's a Catholic school but I'm not looking to be canonised (*female primary school teacher*).

In spite of the previous respondent's suggestion that her situation is related to the type of school in which she works, the comment is reminiscent of an observation previously made in the literature. Hargreaves (1998) warned that

teachers are especially vulnerable to negative emotions when they are hindered in achieving their goals for great teaching by mandated bureaucratic tasks and meetings.

While it is possible that those who are employed within independent schools experience pressure as a legacy of the cultural and religious history of their particular school, other participants indicated that the pressure to work extra hours was a factor of teaching in general, thereby supporting previous research such as that of Fink (2003), Gardner and Williamson (2006) and Howe (2005). Included within this perspective was a perception that society had expectations of teachers that increased pressure on them, for example,

> I seem to be very tired after 24 years of teaching. The work – in particular the paper work and society's expectations of teachers have increased significantly over the time I have been a teacher. I hope I can last another seven years when my children finish school, then I will look for a simpler life – working in a post office I think!! Perhaps a nursery…. (*female high school teacher*)

This rather whimsical reflection and expressed desire for a more simple life is reminiscent of Fink's (2003) finding that "there is considerable evidence of passionate professionals reevaluating their lives and work and seeing teaching as 'just a job'" (p. 126). Several respondents to the survey commented on family commitments which competed directly with workload expectations, for example,

> I have returned to work (part time) after having a baby, so this year my priorities have changed significantly. However I still feel pressure to work long hours outside school hours. I resent my school work

> interrupting my family time however with the workload that we have, there is no choice or alternative (*female, primary teacher*).

The same participant, who because of her part time position would have experienced a drop in pay on her return to work, mentioned the 'unbalanced nature' of the workload, which was an expectation but which went unrewarded, "I also resent that I don't get paid for extra school requirements (such as completing report cards) which are done in my own time – not during work hours".

Rice (2005) noted that there was a lack of consensus within society in general as to what was expected of teachers, leaving individuals feeling that they have failed to meet expectations and vulnerable to the piling up of ever more time consuming tasks. These observations were supported by respondents in the current study, for example,

> I am a PAR [Position of Added Responsibility], year level coordinator and I teach 4 English classes – Year 9 Advanced, Year 10 literacy, Year 11 and Year 12. I consider this a very heavy workload – draft marking, core marking, assignment marking, and extra-curricular marking of oral performances. I also do the extra-curricular debating (coach a year 11 team) in QDU [Queensland Debating Union] competition as a voluntary/honorary contribution to the school….Yet playground duties, extra lessons for absent teachers, etc. are allocated on the basis of hours spent with classes – not according to the nature of the hours spent (*female high school teacher*).

Union documents (QIEU, 2006) state clearly that teachers' participation in co-curricular activities is 'honorary and voluntary'. Therefore it would seem that although teachers have indicated that they feel pressure to take on co-curricular

work, the school is not obliged to factor this into the allocation of school duties which are additional to teachers' normal classroom load.

While many respondents commented on one or other particular issue, one respondent responded with detailed information as to the scope of factors which can encroach on teachers' time:

> The increasing workload is both demanding and of concern and does impinge on one's private life more and more. The demands on teachers' time in terms of: -
>
> - Attendance at meetings, playground supervision, the requirements of keeping up to date professionally (P.D. [*Professional Development*] days, (many out of school hours), P.R [*Public Relations*] duties (open days etc).
> - Time involved in preparation and assessment and reporting of a curriculum aimed at engaging the individual student.
> - Not to mention the physical demands of (volunteering!) for camps and excursions.
> - Plus the mental and psychological demands simply of dealing with C21 teenagers (exciting and challenging as that may be!) ~ are all exacting and taxing. It is all "part of the job" and what makes this profession such an interesting and exciting one to be in, BUT ….. it can, at times, be VERY EXHAUSTING! (*female high school teacher*).

This is consistent with Gardner and Williamson's (2006) observation that "teachers typically reported mounting pressure to do more in less time" (p. 126). The previous respondent made reference to camps and excursions and put the word 'volunteering' in parentheses with an exclamation mark, thus indicating that this particular demanding task (being responsible for a number of children away

from school premises and out of school hours) may well be far from 'honorary and voluntary' as indicated in QIEU agreements with employers (personal communication, QIEU, 8 May, 2006) and that she may feel that there was substantial pressure within the school for teachers to 'volunteer' for such activities.

Several other participants suggested that they too felt pressure to be involved in co-curricular activities, for example:

> I think that the more pressure that is placed on individual teachers to take on other things ie. Interschool sport, etc., not only takes away from valuable class time, but it leaves me feeling disheartened by our profession. We already do so much and it goes unnoticed, and we are expected to continue to keep giving of ourselves. I have only been teaching for 6 years and what I originally thought was my "calling", I now am beginning to think that is my mental, emotional, physical health really worth sacrificing? I feel that I am too young to be suffering burnout. We need to be taught ways of balancing things in our lives so that school doesn't consume us, but the work still gets done (*female primary school teacher*).

This last comment is consistent with Friedman's (2000) hypothesis that young teachers experience an existential crisis where they re-evaluate their commitment to the profession and either adjust after a crisis experience or leave the profession altogether. However, Timms, Graham and Caltabiano (2007) commented that it was probable that this 'adjusting' was actually an accommodation to the job rather than a satisfactory solution to an existential crisis. This position is supported in the current study by the fact that mismatch on workload, exhaustion and disengagement was reported in all age groups.

Specialist teachers reported being especially vulnerable to the pressure to 'volunteer' for extra curricular work, for example:

> As a music coordinator you are constantly expected to perform at every event and sometimes given a day's notice. On top of this you end up being made to do a Musical that means you are at school everyday of the week (including weekends and public holidays). An example is that since starting school this year in January I will have had 2 weekends off in total by June. You are still expected to perform at top level in everything.
>
> The downside of this is:
>
> 1. I now HATE my job
> 2. I have become extremely sick
> 3. My family life is suffering (*female, high school teacher*)

Consistent with her comment, this participant reported working 90 hours per week, and high levels of the burnout dimensions of exhaustion and disengagement. Her assertion that she was "being made to do a Musical" further supports a previous notation that the co-curricular load was perceived by participants as far from an 'honorary and voluntary' one. Sonnetag (2005) saw that disengagement followed the cognitive processing of the exhaustion experience. Disengagement is manifested in the respondent's attitude towards her work, her health and the impact on her family.

Another specialist teacher made a similar point about her extra responsibilities but, in addition, indicated the extra responsibilities affected her ability to prepare properly for her normal classes,

> I find that not enough time has been allocated for me to do my job well. I am a sports co-coordinator and I teach 4 subjects. I use all of

> my preparation lessons doing sports administration work, and hardly ever get a chance to do lesson plans, assessment or general teaching preparation. Therefore I am under prepared when it comes to my lessons and don't feel organised and on top of things (*female, high school teacher*).

This sense of being 'under prepared' when it comes to normal lessons because of an unsustainable load is a theme advanced by a number of researchers (Gardner & Williamson, 2006; Howe, 2005). It is seen as a feature of the heavy workload, shoestring education budgets and a general failure of school authorities to appreciate the intrusive nature of time demands on teachers' private lives.

3.3.2 Refusing to do the extra

Fink (2003) suggested that some teachers might well adapt to their ever increasing workload by refusing extra curricular tasks and indeed several respondents indicated that this was the case. However, consistent with Gardner and Williamson (2006), in each instance there was a counterbalancing comment that in making this decision the individual was aware that the decision would thereby affect their own opportunities for advancement and promotion, for example:

> There are people who work longer and harder than me at my school. I feel I have a healthy attitude to my work, and I feel sorry for some of those who take on extra responsibilities – but that's their choice. I only become annoyed when the harder working teachers complain that the rest of the staff are not doing more. My work is important to me but I'm not "driven", nor do I aspire to a higher position (*female, primary school teacher*).

According to Easthope and Easthope (2000), the juxtaposition of conflicting values creates a situation where teachers are placed in a position where it is

necessary to “rationalize their work and reduce their professional commitment” (p. 43). What is interesting in the current study, however, is the high concordance reported by respondents in the values and community areas of worklife. This would indicate that high workload is not seen by respondents as an ideological issue. In addition, high levels of dedication and absorption reported by participants indicate that most respondents remained highly committed to their work, despite its intrusion into their own time.

3.3.3 Unsustainable workloads

The finding of extensive mismatch in the area of workload, combined with matches for most respondents in the areas of community, values and control indicates that while participants in the current survey tend to be passionate about their jobs, they also feel that demands made on teachers have extended to a level which is unsustainable, for example: “Work intensification is taking good people out of the teaching profession and this is a great shame for our students” (female high school teacher). Tye and O’Brian (2002) found that the source of turnover in the teaching profession lay in the proliferation of tasks which had little to do with teaching well. This was supported by Gardner and Williamson (2006) who observed the effects on teachers of ‘curriculum overload’ due to the rapid nature of change and who also warned of its contribution to teacher turnover. Such job-person mismatch on any area of worklife was seen by Leiter and Maslach (2004) as a “critical source of burnout” (p. 92), indicating a clear causal path to mental health issues for workers. Sonnetag and Zijlstra (2006), Melamed and colleagues (2006) and Smith et al. (2005) also warned that the serious exhaustion pathway led to associated physical illnesses as well as burnout. These observations were

supported by another respondent who detailed the personal and professional cost for herself and colleagues she has known:

> Probably my main concern in teaching is work intensification. I struggle to complete the tasks in my 'in-tray' as well as prepare innovative and engaging lessons that reflect development in education/new syllabuses. In addition, we are expected to do so much marking and tutoring to support our 'fee-paying' students. I feel so disheartened – I love to teach and I desperately want to teach well but I cannot meet the work expectations. I don't like compromising my teaching standards. In my twelve years of teaching I have witnessed collegial 'burn-out', 'breakdowns' and extended illness. This only places more stress on those of us who keep going. I just want to teach. That's what I love (*female high school teacher*).

What is demonstrated here is the point where the overload of emotional and physical exhaustion becomes cognitive (Halbesleben &Demerouti, 2005) as the individual struggles to make meaning out of incongruity. According to Leiter and Maslach (2004) cynicism (called disengagement by Demerouti et al., 2002) develops "in response to an overload of exhaustion and is self-protective, at first, as an emotional buffer" (p. 92) as the individual adjusts to the mismatch between themselves and their worklife.

3.3.4 Limitations

The cross sectional nature of the present study does not allow researchers to develop a causal path between the reported variables, however the extension of quantitative findings by participant comments and the findings of previous research do provide for some assessment of the direction of variable relationships. A further limitation lies in the nature of self report data, which does not provide

an objective measure of constructs. However, previous studies (Melamed et al., 2006) have indicated strong connections between burnout (particularly the exhaustion component which features strongly in the present study) and serious health consequences. In addition Sonnentag and Kruel (2006) and Sonnentag and Zijlstra (2006) have demonstrated strong relationships between long work hours, workload and an inability of the individual to experience restorative psychological detachment, with serious health implications for individuals.

3.3.5 Implications and future directions

Dinham and Scott (2000) noted that teachers found their work was becoming increasingly problematic due to the speed and nature of curriculum and legislative changes. The same researchers also found that increasing expectations which increased the workloads of teachers were impacting on their satisfaction with their work. Combined with this was a poor image portrayed in the media and a widespread perception in the community that teachers had undemanding working conditions. This is consistent with findings in the present study.

So, while survey participants reported matches between themselves and most aspects of their work environment (community, values and control) and general good health, there is sufficient concern within the findings of this study for the sustainability of individuals' good health into the future. It would therefore appear that attention to ideology and imperatives driving teachers' present employment conditions must, of necessity, receive sustained scrutiny and undergo revision. The present study has demonstrated that teachers in independent schools in Queensland are working with unsustainable and health threatening workloads under conditions where they feel pressured.

Respondents in the current study reported strong matches with the values and community areas of workload and high levels of dedication and absorption. However, the reported high workloads, long hours of work and their inevitable intrusion into teachers' private lives, combined with the high relationship of these variables with exhaustion, disengagement and reduced vigour, sound an unmistakable 'warning bell' to authorities who determine workloads for these employees. There are clear indications that respondents in this study feel pressure from various sources, including society and parents, in regard to their performance. Rice (2005) suggested that the isolated autonomy within which teachers work puts them in a weak position in regard to feedback on their performance. Accordingly, it could well be that teachers are the first to put pressure on themselves when it comes to 'volunteering' for co-curricular activities and extra responsibilities. However there is also clear evidence that failure to take on the extra load does impact on individual teachers' opportunities for promotion (Gardner & Williamson, 2006). This aspect of a very complex picture could perhaps indicate compliance on the part of employing authorities with a culture which pressures teachers and consequently takes advantage of their dedication and absorption with their work.

Hargreaves (1999) observed that it is important to remember that superb classroom learning for children must of necessity be reliant on good working conditions for those who teach them. One respondent supported this observation by writing:

> Admin [sic] honestly get excited about their job of finding lots of new best practice ways to improve the school's outcomes but forget how to

> care for and look after their most valuable asset, the teacher in the classroom (*male primary school teacher*).

Respondents in the current study have expressed a sense of their commitment to their work and its value with their demonstrated dedication and absorption. Moreover, vigour, the energy necessary to sustain engagement with work, has apparently been compromised by workloads which have reached an unsustainable level. In addition, an unambiguous relationship between individual mismatches on workload and the burnout dimensions of exhaustion and disengagement has been confirmed in the current study. Therefore it would seem that current workloads are unsustainable for a profession which is devoted to educating future citizens.

Chapter 4

‘Walking the Talk’: Management Trustworthiness, Procedural Justice, Areas of Worklife and the Development of Worker Burnout or Engagement.

Note: A short conference paper incorporating the main findings presented in this chapter was presented at the 7th Industrial and Organisational Psychology Conference in Adelaide on 30th July 2007. As a consequence, that paper (which appears in Appendix B) was published in the conference proceedings. It is noted that the three authors that appeared as authors for the conference paper are the PhD candidate and her two supervisors. Supervisors’ roles in the production of the manuscript were advisory and editorial. A citation for the conference paper appears below.

Timms, C., Graham, D., Cottrell, D. (2007b). "I'm just a cog in the wheel": Worker engagement and burnout in relation to workplace justice, management trustworthiness and areas of worklife. In, M. Dollard, T. Winefield, M. Tuckey, & P. Winwood (Eds.), Better work. Better organisations. Better world. Conference proceedings, 7th Industrial and Organisational Psychology Conference (IOP)/1st Asia Pacific Congress on Work and Organisational Psychology (APCWOP) (pp. 266-271). Adelaide: Australian Psychological Society

4.1 Abstract

Previous studies have indicated that burnout and engagement are more associated with the work milieu than individual characteristics of employees. The current study addressed perspectives of 561 respondents to a workplace dynamics survey. It was hypothesized that burnout, as measured by the Oldenburg Burnout Inventory (OLBI) and engagement with work, as ascertained by the Utrecht Work Engagement Survey (UWES) could be predicted by respondents' perceptions of their work environments. These were measured by responses to the Areas of Worklife Survey (AWS), Procedural Justice Scales, and Management Trustworthiness Scales. K-means cluster analysis identified five distinct respondent profiles on the OLBI and the UWES. Subsequent Kruskal-Wallis analyses found significant differences between cluster groups on all other study variables. In addition, patterns of variable distribution indicated clear support for all hypothesized relationships. In addition, support was found for Schaufeli and Bakkers' (2004) premise that Burnout and Engagement are separate, negatively correlated, constructs.

Key words: burnout, engagement, management trustworthiness, procedural justice, areas of worklife

4.2 Introduction

Research into job burnout has progressed through initially identifying multiple correlates of the phenomenon to current understandings that its development has more to do with its workplace context than with personal attributes of the individuals concerned (Maslach, 2003; Maslach, Schaufeli & Leiter, 2001). Job burnout is characterized by two signature attributes, exhaustion, a feeling of being overwhelmed, over extended, emotionally and physically, so that a person feels drained and unable to unwind and recover; and cynicism (called disengagement

by Demerouti, Bakker, Vardakou & Kantas, 2002). Cynicism is easily distinguishable within workplace environments, workers develop a cold distant attitude towards work, give up on their ideals, minimise their involvement and become negative (Maslach, 2003). Sonnentag (2005) suggested that cynicism may, in situations of high pressure and heavy workload, be a coping mechanism, as individuals are prevented from obtaining 'down time' from their work (see also Fink, 2003; Timms, Graham & Cottrell, 2007a). Similarly, Maslach et al. (2001) described cynicism as an immediate reaction to exhaustion, also suggesting a sequential progression of the burnout syndrome. On the other hand, others have seen its development as an emotional reaction to workers' doubts of organizational integrity (Abraham, 2000; Albrecht, 2002).

Worker engagement was thought by some (e.g. Leiter & Maslach, 1999; 2004) to be the polar opposite of worker burnout; whereas Schaufeli and Bakker (2004) saw engagement as a separate construct, negatively related to worker burnout. Worker engagement is defined by three characteristics: (1) dedication, a sense of pride in one's job and a feeling that it is meaningful, significant, inspiring and challenging; (2) vigour, high levels of resilience, energy and willingness to persevere; and (3) absorption, being fully occupied and unreservedly engrossed in one's work, to the extent that time passes without notice (Schaufeli & Bakker).

Maslach et al. (2001) noted that the Maslach Burnout Inventory measured scores on a continuum from high to low, with high scores indicating the presence of burnout. They speculated that their measure provided information about engagement as well as burnout with burnout being described as an 'erosion of engagement'. According to Maslach et al., what was originally seen as important,

meaningful and challenging work lost its ability to inspire, and consequently became disagreeable, thankless and meaningless. This view of burnout as the opposite of engagement (Maslach et al.) was supported to some extent by Gonzalez-Roma, Schaufeli, Bakker & Lloret (2006) who, using the Maslach Burnout Inventory (MBI) (Maslach et al., 1996) and the Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker, 2003), found two constructs, ‘identification’ and ‘energy’ which were bipolar in character. These two constructs were exhaustion-vigour and cynicism- dedication. However, alternative findings reported by Schaufeli, Taris and van Rhenen (2007), indicate that the MBI and UWES typically demonstrate moderate correlations ranging from r = -.30 to r =-.65. This indicated more support for the argument that would suggest uniform and predictable negative correlations between the two constructs, rather than two extremes of the one construct.

Because worker burnout and engagement are clearly produced within specific workplace contexts (Maslach et al., 2001; Schaufeli & Bakker, 2004), burnout in workers becomes a measure of the breakdown of workplace relationships. People who are exhausted and disengaged cannot possibly be optimally productive (Maslach, 2003). Leiter and Maslach (1999, 2004) proposed that burnout and engagement be studied within a framework of matches or mismatches between individuals and their work environment on six areas of worklife. These were; (1) workload, the amount of work one has to do within a given timeframe and its suitability to workers’ capacity; (2), control, the amount of autonomy the worker has to influence aspects of the work environment that affect them; (3), reward, recognition and affirmation of a job well done and adequate remuneration; (4),

community, a feeling of social belonging and support; (5) fairness, a spirit of mutual trust with the workplace, where due consideration is given to disparate circumstances of members of the workforce; and finally (6) values, ideals and motivations.

As the areas of worklife (Leiter & Maslach, 2006) are described in terms of worker/organisation match or mismatch, there are connotations of expectations each has of the other. Therefore, it was further suggested by Leiter and Maslach that, in an ideal world, employees and employers would arrive at a mutually acceptable balance on these six areas. This reaching of mutually acceptable balance is reminiscent of Rousseau's (1995) psychological contract construct which provides for the development of trust between parties by understanding reciprocal obligations (see also Rousseau & Tijoriwala, 1998). A further link between trust and burnout was suggested by Harvey, Kelloway and Duncan-Leiper (2003) who found trust in management to be a vital 'buffer' helping prevent the development of burnout among employees of a large accounting firm.

Mayer and Davis (1999) described trust as a 'willingness to be vulnerable to the actions of another party' (p. 124), and described the situation where workers contracted to be vulnerable to the actions of employers by accepting a position as employees. However an important component of the employment contract is the perception on the part of each party that the other is trustworthy. This is analogous to Rousseau's (1995) construct of the psychological contract as understandings which evolve as people develop working relationships which eventually become mental schemas that powerfully influence behaviour in the workplace. Mayer, Davis and Schoorman's (1995) descriptions of management trustworthiness

included three factors: (1) ability, worker perceptions that management has the necessary strong competence to handle the challenges of the job; (2) benevolence, worker perceptions that management is concerned about their welfare, is approachable and considerate, and (3) integrity, worker perceptions that management 'walks the talk', that actions and rhetoric are congruent. Whitener, Brodt, Korsgaard and Werner (1998) commented that it was up to managers and organisations to take the first step in establishing a trusting relationship, as they controlled communication channels and power within the workplace. Likewise, Mayer, Davis and Schoorman (1995) saw that insights provided by employee perspectives about the trustworthiness of their managements were invaluable as they provided managements with directions as how best to provide workplace contexts in which there was mutual trust and workers were empowered to be productive.

Parallel research into workplace justice (see Colquitt et al., 2001; Kim & Mauborgne, 1998) sought to provide information as to how management could achieve voluntary cooperation in the execution of major decisions. It was argued, based on understandings gained from social psychology and law, that individuals would demonstrate a high level of cooperation based on their attitudes of trust and loyalty, when they believed that the decision making processes within the organization were fair. Furthermore it was advanced that people, regardless of position on an organizational hierarchy, care a great deal about the justice of dealings by which decisions have been made in the workplace (Kim & Mabourgne, 1998; Miller, 2001). According to Colquitt and colleagues (2001), who conducted a meta-analysis of organizational justice literature, procedural

justice has two dimensions: informational justice and interpersonal justice. Informational justice provides for full disclosure of all decision making. Substantial research (e.g. Chen, Brockner & Greenberg, 2003; Judge & Colquitt, 2004) has demonstrated close ties with informational justice and employee satisfaction, commitment and organisational citizenship behaviour. Although the ties are close and consistently robust, there is an even closer, and equally robust, relationship between interpersonal justice, which is described as sincerity and respect between supervisor, worker and between coworkers, with employee satisfaction, commitment and organizational citizenship behaviour (Colquitt et al. 2001). Furthermore, Colquitt and colleagues found that disrespect and coercive treatment from supervisors and managers cut off the channels to desirable workplace behaviours completely. Miller (2001) noted that the practice of disrespect in the workplace leads inevitably to the development of cynicism, anger, powerlessness, alienation, resistance to change, erosion of meaning, withdrawal and stress which is characteristic of the burnout syndrome. This is consistent with Leiter and Maslach's (2004) observation that mismatches on the six areas of worklife, which include fairness, will predictably impact on the cognitive and emotional responses of employees, leading to exhaustion, cynicism and inefficacy.

The current study seeks to combine these distinct insights into the workplace milieu and examine their possible relationships to the development of worker engagement or burnout. It is therefore hypothesized that there will be significant positive relationships between perceptions of management trustworthiness, procedural justice, and worker engagement. Likewise it is hypothesized that there

will be significant negative relationships between the study variables and worker burnout. It is also predicted that matches on the areas of worklife will be consistent with engagement and mismatches on the areas of worklife will be consistent with burnout. An additional aim of the current research is to explore further the current dialogue between researchers (e.g. Leiter & Maslach, 2004; Schaufeli & Bakker, 2004) as to possible polarity of burnout and engagement.

4.3 Method

4.3.1 Participants

The present study analyses responses from two phases of the same workplace dynamics survey.

Teachers' survey

Participants were teacher respondents to a pen and paper survey distributed to 1000 members of the Queensland Independent Education Union (QIEU) by means of a random draw of the membership database. QIEU has 10793 teacher members, who represent about 60% of teachers currently serving in independent schools in Queensland (personal communication QIEU 25 September 2006). Distribution of the survey was facilitated by QIEU staff. Surveys were included in a union mail out to a random sample of union members in early 2006. Completed surveys were returned to researchers by direct post in an enclosed stamped addressed envelope. The teachers' phase achieved a response rate of 30% (n = 297) from QIEU participants. There were 83 (28%) men, and 215 (72%) women respondents. The gender balance reported in the present study diverges from Australian Bureau of Statistics (ABS, 2002) figures where it was reported that 26.3% of primary teachers and 40% of high school teachers were men. Respondents' mean age fell

within the 45-49 year age group (age groups ranged from 20-24 to 60+ years), with the mode falling in the 50-54 year age group. This is consistent with ABS (2002) figures which cited the median age of teachers as 43, with 44% of all teachers over the age of 45.

Online Survey

Unlike the teachers' survey which captured responses from one industry (teachers) within one education sector (non government schools sector) in one state (Queensland), the online version of the survey targeted responses from workers in a range of industries from all states of Australia. The online survey was active for six months, participants were sought by request in university press releases, radio interviews, by direct email and subsequent positioning of the survey link on the websites of major union bodies (for example, Occupational Health and Safety Unit of the Victorian Trades Hall Council) and by a large insurance company on its website. People who were interested in participation in the research were provided with a direct link to the survey by the facilitating organisations; others contacted the researchers personally and were provided with the link. The online survey was built using Remark Web Survey (Version 3: Professional) which allowed for exporting survey responses to SPSS for data analysis. There were 264 responses to the online survey, 107 (40.5%) were from men and 157 (59.5%) were from women. The mean age of respondents fell within the 35-39 year age group. All states and territories within Australia were represented, however most respondents came from three states: Victoria (45%); Queensland (22%) and New South Wales (20.5%)

Respondents to the online survey represented 28 of the 35 major subgroups in the Australian Standard Classification of Occupations (ASCO) coding system (McLennan, 2006). In regard to ASCO major groups, 115 (43.6%) of online survey respondents were professionals and 81 (30.7%) were associate professionals.

4.3.2 Materials

Information about measures used in the survey is summarized in Table 1. It is noted that Likert scales measured from 1 (strongly disagree) to the highest number (strongly agree) with the exceptions of the Oldenburg Burnout Inventory (OLBI), which went the opposite way (strongly agree to strongly disagree), and the Utrecht Work Engagement Scale (UWES) which measured from 0 (never) to 6 (always).

Table 4.1. Measures used in Survey

Name of Measure and Variables	Scale	Sample Item	N of items	Source
Areas of Worklife Survey (AWS)	5 pt			
Workload (α =.79)		I have enough time to do what's important in my job	6	
Control (α =.72)		I have control over how I do my work	3	
Reward (α =.87)		My work is appreciated	4	Leiter & Maslach, 2006
Community (α =.86)		I am a member of a supportive work group	5	
Fairness (α =.87)		Management treats all employees fairly	6	
Values (α =.76)		My values and the organisation's are alike	5	
Utrecht Work Engagement Scale (UWES)	7 pt			
Dedication (α =.87)		I am proud of the work that I do	5	
Vigour (α =.77)		At my job, I feel strong and vigorous	6	Schaufeli and Bakker (2003)
Absorption (α =.76)		Time flies when I am working	6	
The Oldenburg Burnout Inventory (OLBI)	4 pt			
Exhaustion (α =.81)		I can tolerate the pressure of my work very well.	8	Demerouti, Bakker, Vardakou and Kantas (2002).
Disengagement (α =.78)		This is the only type of work that I can imagine myself doing	8	
Procedural Justice Measures	7 pt			
Interactional justice (α =.97)		.. you are dealt with in a truthful manner.	6	Moorman, Blakely and Niehoff (1998)
Procedural justice (α =.94)		..the decisions are applied with consistency to the parties affected.	6	
Together (α=.98)				
Perceptions of Management Trustworthiness	5 pt			
Ability (α =.94)		Senior Management is well qualified	6	Mayer and Davis (1999)
Benevolence (α =.93)		Senior Management is very concerned about my welfare	5	
Integrity (α =.93)		Sound principles seem to guide Senior Management's behaviour	5	
Trust (α =.78)		I wish I had a good way to keep an eye on Senior Management (Reverse Score)	4	

The OLBI has been recently translated into English after extensive testing with participants in the original German language (Halbesleben & Demerouti 2005). It was chosen in preference to the more well known Maslach Burnout Inventory (MBI) (Maslach, Jackson, Leiter & Schaufeli, 1996) because copyright issues made it illegal to reproduce MBI questions in a survey document or online. Therefore, as the OLBI does not measure professional efficacy, it was not possible to measure this variable in the current study. The English version of the OLBI has achieved comparable validity and reliability in comparisons with the MBI (Halbesleben & Demerouti, 2005).

In addition, respondents were invited to respond to two brief questions, “three things I would expect to have in a job are:” and “feel free to make a comment about your experience of fairness within your organization”. A larger space was provided in both surveys for respondents to comment on any aspect of the work environment which had been brought to mind during the process of completing the survey.

4.4 Results

A correlation matrix of study variables can be found in Table 4.2.

Table 4.2. Correlation Table of Main Study Variables.

	Measure and scale		Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	Interactional justice	7pt	4.58	1.76	-															
2	Procedural justice	7pt	4.30	1.64	.92***	-														
3	Ability	5pt	3.17	1.02	.74***	.74***	-													
4	Benevolence	5pt	2.85	1.03	.81***	.77***	.80***	-												
5	Integrity	5pt	3.05	1.03	.84***	.82***	.85***	.89***	-											
6	Trust	5pt	2.82	.87	.73***	.73***	.77***	.81***	.82***	-										
7	Dedication (UWES)	7pt	4.10	1.01	.43***	.39***	.37***	.45***	.40***	.36***	-									
8	Vigour (UWES)	7pt	3.60	.80	.58***	.52***	.49***	.55***	.53***	.48***	.57***	-								
9	Absorption (UWES)	7pt	3.77	.83	.22***	.21***	.20***	.26***	.22***	.18***	.67***	.40***	-							
10	Exhaustion (OLBI)	4pt	2.49	.48	-.36***	-.33***	-.28***	-.31***	-.28***	-.28***	-.26***	-.37***	.02(ns)	-						
11	Disengagement (OLBI)	4pt	2.25	.47	-.50***	-.46***	-.42***	-.47***	-.44***	-.42***	-.68***	-.52***	-.47***	.55***	-					
12	Workload (AWS)	5pt	2.47	.78	.19***	.18***	.13**	.14**	.13**	.14**	-.03(ns)	.18***	.34***	-.62***	-.21***	-				
13	Control (AWS)	5pt	3.54	.80	.56***	.52***	.48***	.53***	.50***	.45***	.43***	.62***	.24***	-.37***	-.46***	.21***	-			
14	Reward (AWS)	5pt	3.05	.90	.62***	.57***	.54***	.60***	.56***	.54***	.40***	.53***	.17***	-.40***	-.50***	.31***	.52***	-		
15	Community (AWS)	5pt	3.48	.83	.57***	.53***	.50***	.53***	.53***	.49***	.35***	.58***	.17***	-.29***	-.41***	.17***	.45***	.59***	-	
16	Fairness (AWS)	5pt	2.89	.87	.80***	.80***	.71***	.76***	.79***	.71***	.40***	.61***	.22***	-.35***	-.48***	.22***	.59***	.68***	.63***	-
17	Values (AWS)	5pt	3.48	.75	.72***	.69***	.67***	.71***	.72***	.67***	.53***	.62***	.34***	-.33***	-.55***	.12**	.57***	.58***	.61***	.72***

Note 1. ** p < .01, *** p < .001. *Note 2*. numbers vary between 537 and 564 due to missing values on some items (management trustworthiness questions were optional).

It is noted that the procedural justice measure (Moorman, Blakely & Niehoff, 1998) consisted of two components, a six item interactional justice measure and a six item procedural justice measure. Moorman et al. however reported the combined measure. This lead has been followed in the current study as the two components were very highly correlated, $r = .92$, n = 561, $p < .001$. The 12 procedural justice items used a 7 point Likert scale. In fact the justice measures correlated highly with the management trustworthiness and trust scales as well as some of the measures from the AWS (see Table 4.2). In order to maximize the information these variables could provide as to respondent perceptions of the workplace environment, they continued to be treated as separate variables in the current study.

4.4.1 K-means cluster Analysis

In order to capture the widest array of distinct profiles for the burnout and engagement dimensions, scores for exhaustion and disengagement (OLBI), and for dedication, vigour and absorption (UWES) were standardized and submitted to K-means cluster analysis. Cluster analysis was deemed by researchers to be the most expeditious method of enabling them to group large numbers of individuals and identify those at high risk of burnout as well as those who were engaged with their work (Clatworthy, Bick, Hankins, Weinman & Horne, 2005). While the present research is not aimed at specific intervention with such individuals, it does seek to establish a sense of what is common in the experience of people experiencing burnout or engagement.

The technique for K-means cluster analysis is described in Cortina and Wasti (2005), it involves partitioning cases into n = k clusters, maximizing the differences between clusters and minimizing variance within clusters using Euclidean distance between cluster centres. In SPSS, K-means cluster analysis requires the researcher to request the number of desired clusters. This was initially done with two, three, four and five cluster solutions on the two

data sets (teachers and online respondents) separately, in order to confirm that the analysis performed in a consistent manner. It was deemed that the five cluster solution captured a wide array of distinct profiles and provided meaningful information for the researchers. It was noted that all cluster solutions consistently produced similar, although not identical cluster structures on both data sets. Convergence into five clusters was achieved in 20 iterations. Final numbers in clusters were 144 (25.6%) in cluster one, 143 (25.4%) in cluster two, 102 (18.1%) in cluster three, 116 (20.6%) in cluster four and 56 (10%) in cluster five. Table 4.3 provides information as to standardised means and standard deviations at cluster centres for the defining UWES and OLBI variables. Standardised scores were used to enable clearer interpretation, the UWES is based on a 7 point scale and the OLBI is based on a 4 point scale.

Table 4.3. Variable Means at Final Cluster Centres

	Cluster									
	En1		En2		Bu1		Bu2		Bu3	
	z score	SD	z score	SD	z score	SD	z score	SD	z score	SD
Dedication (UWES)	1.10	.42	.21	.40	-.65	.43	-.08	.54	-1.96	.61
Vigour (UWES)	.92	.73	.45	.46	-.27	.56	-.85	.69	-1.25	.83
Absorption (UWES)	1.06	.60	-.06	.56	-1.00	.49	.23	.64	-1.22	.84
Exhaustion (OLBI)	-.24	1.01	-.44	.86	-.17	74	.69	.87	.62	.96
Disengagement (OLBI)	-.78	.94	-.34	.60	.41	.67	.35	.76	1.41	.65

Table 4.4 provides information on Euclidian distances between final cluster centres and indicates that the clustering resulted in five distinct groups.

Table 4.4. Euclidean Distances between Final Cluster Centres

Cluster	1	2	3	4
2	2.70	-		
3	1.37	1.36	-	
4	2.09	1.33	1.27	-
5	4.18	1.66	2.92	2.33

The distinctive nature of the clusters is plotted in Figure 4.1, where symbolic representations have been assigned to the variables.

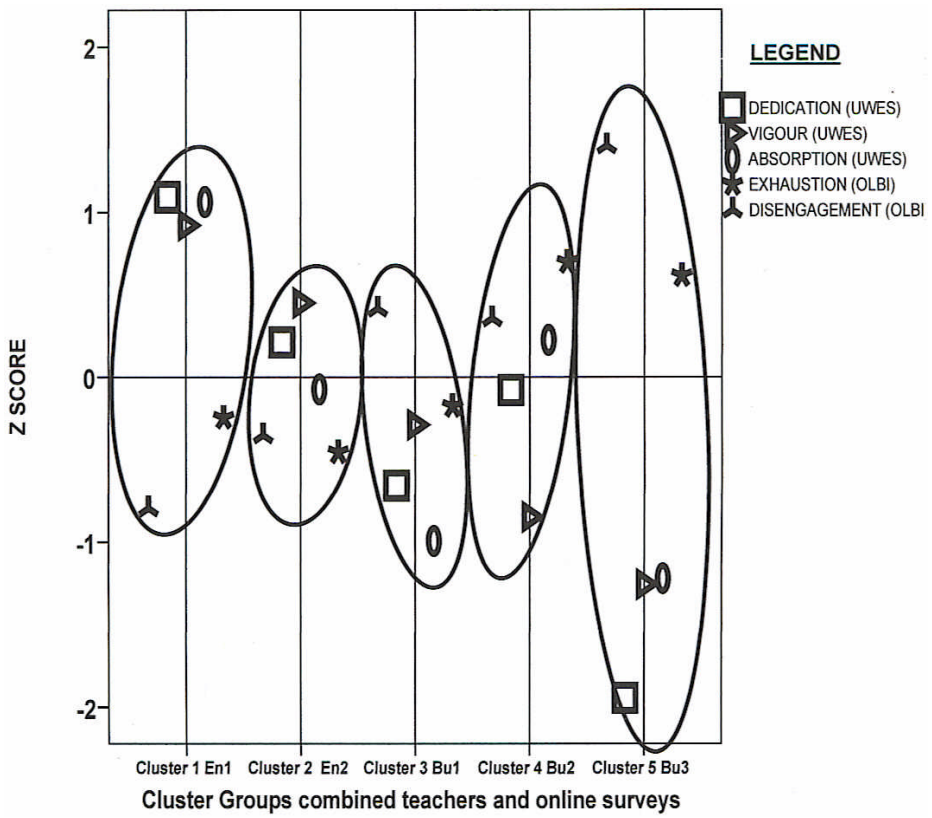


Figure 4.1. Cluster Distribution of Standardized Engagement (UWES) and Burnout (OLBI) Variables.

Figure 4.1 demonstrates that individuals in cluster one (n= 144) and cluster two (n=143) established patterns of response indicative of higher agreement with UWES variables than the OLBI variables, these groups were called En1 and En 2. Clusters four (n=116), five (n=56), and to a lesser extent, cluster three (n=102), revealed a clear burnout pattern with the OLBI dimensions of exhaustion and disengagement demonstrably higher than the UWES dimensions of dedication, vigour and exhaustion, these clusters were called Bu1, Bu2 and Bu3.

Cluster demographics

The mean age of respondents in En1 (n=144) fell within the 40-44 year age group, whereas the mean age of respondents in En2 (n=143), Bu1 (n=102), Bu2 (n=116) and Bu3 (n=56) all fell within the 35-39 year age group. Gender distribution within clusters was: En1 30 males and 114 females; En2 59 males and 84 females; Bu1 40 males and 62 females, Bu2 34 males and 82 females and Bu3 27 males and 29 females. Representation of the two survey phases were En1 101 teachers and 43 online; En2 84 teachers and 59 online; Bu1 41 teachers and 61 online; Bu2 53 teachers and 63 online and Bu3 18 teachers and 38 online.

In regard to occupations, it is noted that all teachers (297) belonged to category 2 (professionals) so that when the teachers' survey data was combined with the online survey data the professional category became the largest group within the combined data set.

4.4.2 Distribution of management trustworthiness, trust and workplace justice in cluster groups

The creation of cluster groups from components of the major dependent variables (UWES and OLBI), provided researchers with a categorical variable with which to

further test variables supposed by the researchers to be related to the development of workplace engagement and burnout. Means (expressed as z scores for comparison) and standard deviations for management trustworthiness dimensions of ability, benevolence and integrity, trust in management and the workplace justice measures are summarized in Table 4.5.

Table 4.5. Means and SDs for Management Trustworthiness, Trust and Procedural Justice in Cluster Groups (z scores)

	Cluster 1 En1			Cluster 2 Bu1			Cluster 3 En2			Cluster 4 Bu2			Cluster 5 Bu3		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Management Ability	137	.38	.99	98	.39	.80	137	-.13	.84	113	-.38	.97	55	-.91	.87
Management Benevolence	135	.49	.96	99	.44	.78	137	-.25	.79	114	-.40	.95	55	-.99	.76
Management Integrity	136	.42	.99	100	.43	.74	138	-.24	.79	113	-.38	1.02	53	-.93	.84
Trust in Management	135	.38	1.02	100	.40	.81	135	-.17	.81	114	-.36	.95	55	-.84	.93
Interactional Justice	142	.48	.88	101	.47	.75	143	-.19	.82	116	-.50	.95	56	-1.05	.93
Procedural Justice	142	.47	.97	102	.46	.79	142	-.26	.88	116	-.49	.88	56	-.86	.77

Note 1. Discrepancies in numbers reflect missing values (Management trustworthiness questions were optional)

Cluster distribution of the trustworthiness, trust and workplace justice measures were further examined using a sequence of Kruskal Wallis tests. All variables demonstrated significant differences between clusters indicating that respondents within the cluster groups demonstrated patterns of responding to these scales, details of these tests are: management ability, χ^2 (4) =106.22, p <.001; management benevolence χ^2 (4) =136.69, p <.001; management integrity χ^2 (4) =117.57, p <.001;

trust in management χ^2 (4) =96.98, p <.001; interactional justice χ^2 (4) =158.21, p <.001 and procedural justice χ^2 (4) =138.57, p <.001.

A visual comparison of cluster patterns of distribution from the trustworthiness, trust and workplace justice measures is plotted in Figure 4.2. As in the previous visual comparison between OLBI and UWES variables, differences in scale between the management trustworthiness and trust variables (5 point scale) and that of the workplace justice variables (7 point scale) made it necessary to standardise scores for visual comparison.

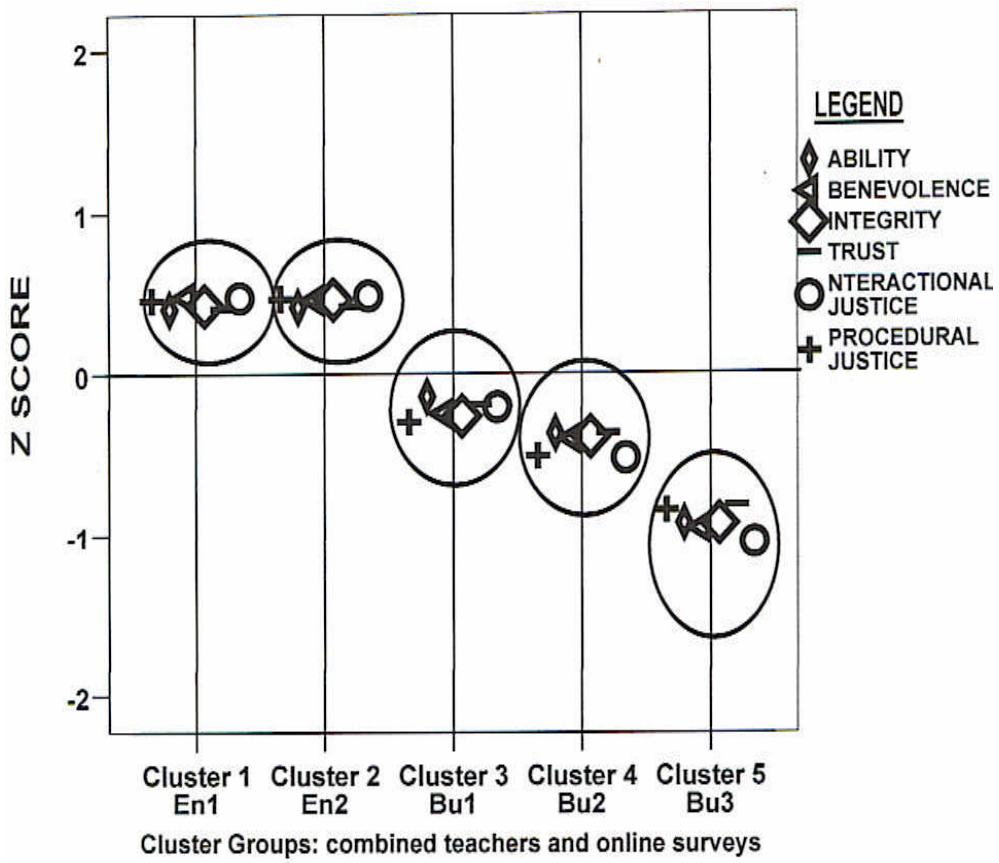


Figure 4.2. Distribution of Standardized Management Trustworthiness, Trust and Workplace Justice Measures within Cluster Groups.

The correlation matrix in Table 4.2 reveals that the management trustworthiness, trust and workplace justice measures are highly correlated with each other and serves to explain that they are not more widely distributed within the clusters.

4.4.3 The areas of worklife and cluster groups

Means (expressed as z scores for comparison) and standard deviations for the variables measured by the AWS are provided in Table 4.6.

Table 4.6. Means and SDs for AWS variables (z scores)

	Cluster 1			Cluster 2			Cluster 3			Cluster 4			Cluster 5		
	En1			Bu1			En2			Bu2			Bu3		
	N	M	SD	N	M	SD	N	M	SD	N	M	SD	N	M	SD
Workload	142	-.18	.96	102	.38	.92	141	.48	.93	116	-.61	.76	56	-.10	1.03
Control	143	.44	.89	102	.46	.63	142	-.17	.76	116	-.39	.92	56	-1.16	1.21
Reward	143	.40	.92	102	.46	.77	143	-.05	.89	116	-.53	.94	56	-1.01	.75
Community	142	.40	.82	102	.41	.67	142	-.07	.82	116	-.51	1.12	55	-.88	1.09
Fairness	142	.48	.96	101	.49	.75	140	-.22	.79	115	-.53	.90	56	-.95	.82
Values	141	.65	.75	102	.43	.72	142	-.37	.82	116	-.43	.94	56	-1.16	.83

Note. Variations in numbers reflect missing responses on that scale

Cluster groupings of the AWS variables were further examined using Kruskal Wallis tests. This indicates that respondents within cluster groups demonstrated characteristic responses to these variables. Details of these results are; workload χ^2 (4) =93.16, p <.001; control χ^2 (4) =141.93, p <.001; reward χ^2 (4) =138.29, p <.001;

community χ^2 (4) =107.22, p <.001; fairness χ^2 (4) =152.26, p <.001 and values χ^2 (4) =196.60, p <.001.

A visual comparison of cluster patterns of distribution of the AWS variables is plotted in Figure 4.3. It is noted that all AWS variables were charted on a five point scale from 1= severe mismatch to 5 = extreme match, however in order to allow comparison with other variables in this study, the scores were standardized.

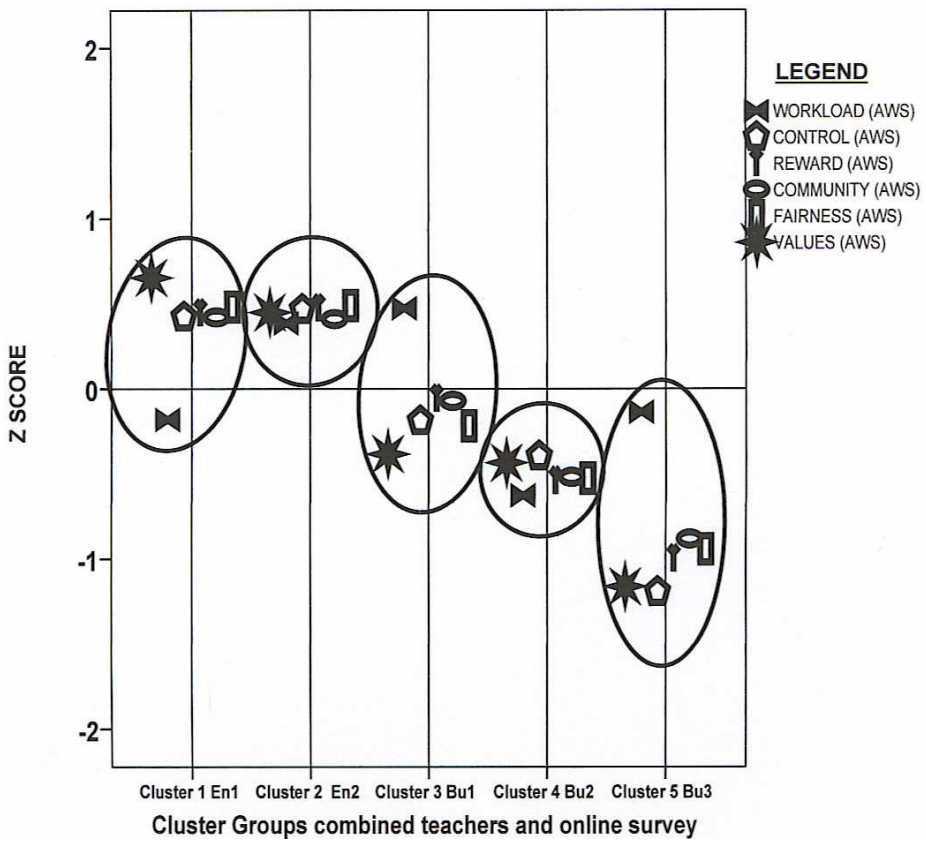


Figure 4.3. Distribution of Standardized AWS Variables within Cluster Groups.

Respondents provided substantial qualitative comments at three survey junctures. When these were scrutinized it was found that they were consistent with the cluster groupings identified in the K-means cluster analysis and will be considered at appropriate points in the discussion.

4.5 Discussion and Qualitative Results

Hypothesised positive relationships between management trustworthiness (Mayer & Davis, 1999), procedural justice (Moorman et al., 1998) and engagement (Schaufeli & Bakker, 2003), and negative relationships between the variables and burnout (Demerouti et al., 2002) were supported in the current study. Furthermore, the AWS (Leiter & Maslach, 2006) provided researchers with more contextual information as to conditions within the workplace environment which could well contribute to the development of engagement with work, or the development of burnout. In addition, the cluster analysis process used in the current study further refined researchers' understanding of how various variables could contribute to the development of engagement or burnout with work. This was achieved by the identification of groups of individuals with particular response patterns in regard to the UWES and the OLBI and noting co variation of other study variables within the clusters.

Responses to management trustworthiness, trust and workplace justice measures were more positive within the first two clusters (En1 and En2) demonstrating higher responses on the UWES variables of dedication, vigour and absorption. This pattern was repeated in the AWS variables of control, reward, community, fairness and values, although En1 did not endorse workload. The three clusters, (Bu1, Bu2 and Bu3) which indicated higher responses to the OLBI variables of exhaustion and disengagement, revealed a consistent pattern of response to other variables.

4.4.1 En1 (cluster one) "the empowered ones"

En1 participants (n=144) indicated an engagement pattern with responses for dedication, vigour and absorption from the UWES (Schaufeli & Bakker, 2003)

falling around one SD above the mean, exhaustion (OLBI) (Demerouti et al., 2002) falling just below the mean and disengagement (OLBI) falling about one SD below the mean. Examination of the management trustworthiness (Mayer & Davis, 1999) and procedural justice (Moorman et al., 1998) patterns shown by the clusters indicated that En1 respondents tended to agree that their management was trustworthy and that workplace justice procedures were in place. Further examination of the AWS (Leiter & Maslach, 2006) variables indicated that respondents in this cluster reported matches on all areas of worklife with the exception of workload. Comments from En1 respondents endorsed the pivotal role of management in fostering the type of work environment which enabled workers to perform to their best possible capacity, for example:

> A "GOOD' school environment is a place where you are given the 'freedom' to share with your class of children the things in life that you are most excited about. It is a rewarding vocation to pass on to your students the love you have for certain things whether it be to enjoy a good book, listen to inspiring songs/music, have a go, accept a challenge of stepping out of your comfort zone, walk in another's shoes through literature or film, participate in mathematical gymnastics. Ah, who would not want to be a teacher! 'Freedom' – support, resources, attitude from administration empower you to teach to your fuller capacity (*female primary teacher, En1)*

This comment is indicative of the positive comments from En1 participants in general and is interesting that while the love of the job is apparent, there is a sense that the ability to become absorbed in it is one that is granted or 'given' through provision of support by management and resources. Thereby indicating that positive experience of the psychological contract, by means of matches on the areas of

worklife, trust and communication are very much an empowering part of work dynamics for this individual.

Indeed the fact that En1 respondents indicated mismatch on workload (AWS), would suggest that people who would otherwise feel completely congruent with their work environment are at risk of developing exhaustion which could eventually undermine their experience of engagement with their work (Sonnentag, 2005; Timms, Graham and Cottrell., 2007a). A number of respondents indicated awareness of this risk, for example:

> Work intensification is a crazy huge issue. I work phenomenal hours, as do many of my colleagues, but am at least fortunate enough to gain a deal of job satisfaction from what I do – not yet burnt out. I have no doubt that if I keep this pace, eventually I will burnout however, it has already affected my health and home life (*female, high school teacher, En1*)

In regard to the role played by trust in management in providing a 'buffer' to burnout (Harvey et al., 2003), many En1 respondents indicated that they had a working knowledge of less congenial management in the past, which had previously affected their relationships with their work, for example:

> The above 20 answers on senior management are based on when I worked part time for an organisation and senior management were idiots and had no idea how to manage people plus some bullied employees - that is why I now work freelance and choose who I work for (*female, journalist, En1*)

> As I mentioned earlier, the difference between my past school of 19 ½ years and the present one of just 12 months is immeasurable. I am in the same role but the equity issues, support, time to do the required job,

> appreciation of what you do etc. are poles apart. No wonder I had to leave for stress and medical reasons (*female, high school teacher, En1*).

4.5.1 En2 (cluster two) 'at risk'

The pattern of response for En2 (n= 143) was not as clear as that of En1. Utrecht Work Engagement Scale means for dedication and vigour were slightly above the mean, absorption hovered on the mean and the OLBI dimensions of exhaustion and disengagement were slightly below the mean. Consistent with their less enthusiastic endorsement of UWES variables, comments from En2 respondents were generally less positive than those of En1 respondents, for example,

> It's interesting to assess yourself and your boss. It seems I may be a bit jaded; and him too. He has got a lot more concerned about money in the past ten years - when he used to be all about telling it fearlessly and generally having fun and the money would follow (*male, journalist, En2*)

While this comment does not resonate with the positive energy of En1 respondent comments, it still embodies a sense that this long term employee, while disappointed that things are not as they were, still regards his employer as trustworthy. However, changes that have crept into his work environment during his tenure have rendered his work, which was previously inspiring and meaningful, 'just a job' (Fink, 2003). Timms, Graham and Cottrell (2007a) found that while teachers reported high dedication and absorption in their work, they found themselves being pressured to do more and more, leading to exhaustion. According to Sonnentag (2005), exhaustion is a precursor to the development of disengagement. Also within the last respondent's comment, is a sense that it is only when the individual has reflected on the current situation that his dissatisfaction is evident. This is evocative of Rousseau's (1995)

observation on psychological contracts, once established they become ‘enduring mental models’. Therefore it is posited that people may tend not to notice changes that occur in the intervening time, unless they are so dramatic as to be overt violations of the contract.

4.5.2 Bu1 (cluster three) “the unengaged’

While Bu1 respondents (n = 102) did not indicate agreement with the OLBI dimension of exhaustion, they did indicate agreement with disengagement. Comments from these respondents tended to express a theme of having experienced inconsistent management practices, for example:

> When the organisation was smaller there was [sic] better processes in place for fairness to employees on workplace decisions. Since the growth and branching out there is lack of loyalty to long term employees. Money would seem to be an over-riding factor. I believe if senior management had to do my job, things would change in the workplace. There is [sic] not enough hours to complete all tasks. The skills required in my industry carry a big responsibility and we are underpaid (*female, disability support worker, Bu1*).

> Very often CEO makes decisions without reasons or record. This reflects how senior management team lead. There is no transparency of decisions and therefore no responsibility taken. Very hard to fulfill work expectations when 'goal posts keep moving' (*female, communications manager, Bu1*).

These sorts of comments are consistent with the views of Abraham (2000) and Albrecht (2002) that cynicism (called disengagement in the OLBI) rises as an emotional reaction to workers’ doubts of management integrity. Certainly, comments from participants were along the lines of, “complete frustration with the games

management plays with its employees" (female, nurse, Bu1). Responses from this group of respondents generally indicated that they viewed their managements as less than trustworthy (Mayer & Davis, 1999) and indicated mismatches on the control, reward, community, fairness and values dimensions of the AWS (Leiter & Maslach, 2006). A reported match on workload appears incongruous; however it noted that Bu1 respondents disagreed with vigour (UWES) and exhaustion (OLBI). It is suggested that Bu1 respondents' clear disagreement with the UWES dimensions of dedication, vigour and absorption as well as the OLBI dimension of exhaustion are more indicative of disengagement with their work, rather than burnout.

4.5.3 Bu2 and Bu3 (clusters four and five) 'the burnout experience'

Bu2 (n = 116) and Bu3 (n = 56) respondents indicated patterns of responses suggesting that they were experiencing burnout, with those in Bu3 suffering a more extreme experience. While it is impossible within cross sectional research, such as the present study, to suggest a progression of experience it is interesting to note that Bu2 respondents reported higher means for exhaustion than disengagement and Bu3 respondents (who reported a more severe burnout experience) reported higher disengagement. This is supportive of previous indications from Leiter and Maslach (2004) and Sonnentag (2005) that disengagement (cynicism) develops in response to a serious exhaustion experience and to some extent becomes a coping mechanism as the individual seeks to extract some meaning from the distress in their worklife. In contrast to comments from En1 respondents, comments from Bu2 and Bu3 respondents were redolent with negativity and a sense that their psychological contracts had been violated (Rousseau, 1995), some examples are:

> Women are discriminated against and unless you're one of the boys, you have no hope of being treated fairly, having your achievements recognised or being listened to. I work for a morally bankrupt company in an industry without ethics. Its commitment to profits, shareholders and its mates means that it cannot treat all of its employees with more respect than it's legally required to. It has run-down morale (*male, journalist, Bu3*).

> There is none [equity], a free individual can be helpful but management is a top down process. I'm just a cog in the wheel for making money, no recognition and no thanks for extra efforts (*female, TAFE teacher, Bu2*).

> My workplace had 3 senior staff (manager, chef-manager, and functions manager) and 5 workers. Management decided to reduce costs and this would be done by reducing labor. Staff numbers were to be cut from 5 to 3. With no notice, staff were called together to announce reductions in staff. Staff were asked to apply for their jobs, the unsuccessful applicants would be transferred. One staff member on holiday was not consulted at all (*female, food and beverage attendant, Bu3*).

4.5.4 Burnout and Engagement: 'Polar Opposites'?

Leiter and Maslach (1999, 2004) suggested that burnout and engagement were polar opposites (Maslach et al., 1996). This view was to some extent supported by polar distributions of the OLBI and UWES variables in clusters one (En1) and five (Bu3). However, it is interesting to note that Bu1 respondents indicated lack of agreement with both vigour (UWES) and exhaustion (OLBI), indicating that these people did not feel energised by their jobs, yet they were also not exhausted by them. In addition, Bu2 respondents reported similar means for absorption as they did for disengagement, indicating the possibility that people can find their job absorbing while feeling disengaged and cynical about aspects of it. This is consistent with

Schaufeli and Bakker's (2004) view that engagement is not a polar opposite of burnout (Leiter & Maslach,1999; 2004; Maslach et al., 2001), but rather a separate construct that is negatively correlated with it.

4.5.5 Limitations

The cross sectional nature of the present study has meant that while support can be advanced for previous studies, it is only possible to observe relationships between variables, rather than determine causal direction of those variables. However the inclusion of the management trustworthiness measures (Mayer & Davis, 1999) and the procedural justice measures (Moorman et al., 1998) with the AWS measures (Leiter & Maslach, 2006) combined with comments from En1 respondents (who indicated previous working knowledge of uncongenial work environments in the past) would indicate the pivotal role played by managements in establishing workplace environments in which workers are provided with sufficient support and resources to become engaged in their work.

4.5.6 Conclusion

The workplace context was defined through the AWS (Leiter & Maslach, 2006) with management contributions, measured by perceptions of management trustworthiness (Mayer & Davis, 1999) and procedural justice (Moorman et al., 1998). Matches and mismatches on the AWS provided a sense of what employees expected to find in their work environments, or in other words, their psychological contract expectations (Leiter & Maslach, 1999; Rousseau, 1995). In turn, this contextual knowledge served to indicate how burnout as measured by the OLBI (Demerouti et al., 2002), and engagement as measured by the UWES (Schaufeli & Bakker, 2003), may develop within a workplace context. Hypothesized relationships between the variables were

supported, indicating that trustworthy management and procedural justice, as well as matches on the AWS correlate positively with engagement of workers and negatively with worker burnout.

It is interesting to note that alternative explanations for the development of disengagement/cynicism were both supported through the cluster analysis process used in the present study. Bu1 respondents reported disengagement but not exhaustion, commenting on inconsistent management practices (Mayer & Davis, 1999). This is consistent with Abraham (2000) and Albrecht's (2002) view that cynicism builds up as workers experience incongruence with organisational integrity. On the other hand, comparisons Bu2 and Bu3 revealed that respondents experiencing more severe burnout (Bu3) tended to indicate higher endorsement of disengagement. This is consistent with Maslach et al. (2001) and Sonnentag's (2005) view that disengagement/cynicism follows the exhaustion experience as the individual seeks to find a way cope with it.

It is of interest that the current study identified a group of individuals (Bu1) who, while they clearly identified with disengagement, did not agree that they were exhausted. In addition, this group did not endorse the UWES variables of dedication, vigour and absorption, thereby indicating to researchers that while they were suffering burnout, their experience was quite distinct. Likewise, Bu2 indicated similar means for absorption (UWES) and disengagement (OLBI). Therefore it is argued that, rather than burnout and engagement being opposite poles of the same construct (Maslach et al., 2001), they are separate negatively correlated constructs (as per Schaufeli & Bakker, 2004). Future directions of this research will focus on

developing more detailed understandings of the workplace contexts in which burnout and engagement occur.

Chapter 5

Different Names - Same Paradigm? Fairness, Procedural Justice and Management Trustworthiness

Fairness, Procedural Justice and Management Trustworthiness appear in different contexts within organizational literature. Within the workplace the fairness construct is associated with the development of burnout or engagement in workers. Procedural justice is discussed in terms of its relationship to a number of organizational outcomes, including absenteeism and the development of mental and physical conditions in employees. Management trustworthiness, on the other hand, is associated with employee productivity and business profitability. In the current research it was hypothesized that the three constructs shared considerable overlap. Investigations were conducted on responses to two phases of a Workplace Dynamics Survey using confirmatory factor analysis with Structural Equation Modeling (SEM). It was found that the three constructs did share a sizable overlap and could well be measuring the same thing. This finding has implications for dialogue between organisational psychology and business management literature, and helps to provide focus for industries on strategies for dealing with workplace issues that impede optimum productivity.

Early interest in organisational justice by researchers focused on refining 'input-outcome' models. For example, the work of Adams and Rosenbaum (1962) and Walster, Bercheid and Walster (1973), suggested that equity in all relationships, including those of the workplace, could be reduced to a simple formula where contributions such as resources (from management) and labour (from employees), were seen as inputs that would, accordingly, entitle their providers to rewards.

Within the literature of mutual cooperation between employers and employees in the workplace, equity (fairness) has consistently demonstrated a positive relationship with voluntary worker cooperation, whereas unfairness has tended to be associated with withdrawal on the part of workers (Folger, 1977; Kim & Mauborgne, 1998; Thirbaut, Friedland & Walker, 1974). Blau (1964) suggested that individuals establish and maintain relationships (including those regarding employment) because of expectations that these will be mutually beneficial.

5.1.1 Expectations, Reciprocity and The Psychological Contract

The word 'expectations' occurs a great deal within organisational literature, Rousseau (1995) suggested that the psychological contract was an understanding that existed between employer and employee within workplace settings. In a contract situation, each party has an understanding of what can be expected from the other, given the inputs of each. Recognising the dynamic nature of human relations, Rousseau saw the psychological contract as an evolving process with both parties "filling in the blanks along the way" (p.7). The universal law of the psychological contract is reciprocity, reminiscent of the previously mentioned input/outcome models (Adams &Rosenbaum, 1962; Walster et al., 1973), and implying the understanding and trust of both parties to the contract. Siegrist (1996) described possible sources of stress within the workplace coming from an imbalance of efforts and rewards. As well as financial remuneration for efforts, Siegrist identified esteem and status control as rewards that people felt they were entitled to in the workplace.

Examples of high efforts required of workers, within Siegrist's model, included demands and obligations (extrinsic effort) and a need to feel organised and in control, called 'critical coping' (intrinsic effort). According to Siegrist, workplace

conditions characterised by high efforts and low rewards were, “likely to elicit recurrent feelings of threat, anger and depression or demoralization, which in turn, evoke sustained autonomic arousal” (p. 30). Siegrist proposed therefore, that the chronic recurrence of this experience may not necessarily be conscious, but nevertheless would be a source of incongruence for workers to the inevitable detriment of their health. Subsequently this thesis has been supported by Kuper, Singh-Mannoux, Siegrist and Marmot (2002) who found that ‘failed reciprocity’ within the workplace in the form of high-efforts/low-rewards was associated with coronary heart disease.

The suggestion that failed reciprocity within the workplace has consequences for people’s health as a result of autonomic arousal is reminiscent of other literature that describes the psychological contract as unconscious, only becoming conscious over the course of the relationship as suggested by Rousseau’s (1995) ‘evolving’ process. According to Miller’s (2001) review of the literature, what is interesting about the psychological contract, is that while people may not be able to articulate exactly what they want from any relationship, they readily recognise when their ‘sense of rightness’ has been violated. Therefore, to some extent, the psychological contract is an implicit ‘code of conduct’ that deems what is, or is not, acceptable in a relationship between people. The literature on procedural justice consistently indicates that people value the practice of fair procedures within the workplace more than favourable outcomes (Chen, Brockner & Greenberg, 2003; Colquitt, Conlon, Wesson, Porter & Ng, 2001; Judge & Colquitt, 2004; Kim & Mauborgne, 1998; Miller, 2001). Furthermore, there is substantial evidence that organisational injustice is associated with poor outcomes for employee mental health and physical wellbeing

(Bakker, Schaufeli, Demerouti, Janssen, Van Der Hulst & Brower, 2000; De Boer, Bakker, Syroit, & Schaufeli, 2002; De Vogli, Ferrie, Chandola, Kivimaki & Marmot, 2007; Head, Kivimaki, Martikainen, Vahtera, Ferrie & Marmot, 2006; Kivimaki et al., 2007; Kuper et al., 2002; Siegrist, 1996, 2004; Smith, Roman, Dollard, Winefield & Siegrist, 2005).

5.1.2 How people respond to fair procedures

The reason fair procedures are valued by workers seems to be enshrined within the belief of people that they are entitled to respect and the expectation (the psychological contract, Rousseau, 1995) that they will be treated in a way that enhances their favourable self regard (Miller, 2001). The literature is consistent in the message that this is what is conveyed to people by the practice of transparently fair and consistent processes and decision making within workplaces (Leiter & Maslach, 2004; Maslach & Leiter, 1997; Miller, 2001). Conversely, the experience of injustice, is read by people as disrespect (Miller, 2001), is associated with simmering anger (Miller), extended absenteeism (De Boer et al., 2002; Head et al., 2006), and subsequently, with increased risk of heart disease (De Vogli et al., 2007; Kuper et al., 2002), and depression (Smith et al., 2005). Interestingly, in their analysis of the large longitudinal 'Whitehall II' study, Kivimaki, Ferrie, Head, Shipley, Vahtera & Marmot (2004) found support for the proposal that reversal of organisational injustice had favourable health outcomes for workers.

Kim and Mauborgne's (1998) theoretical essay advocated the practice of procedural justice by managements as a strategy of achieving voluntary cooperation from employees in the ultimate interest of enhancing organisational prospects for advancement and profitability. In doing this they altered the focus within the

procedural justice literature from positive effects for workers of the practice of fair procedures; to projected positive effects for management of these practices. Consequently, a focus on the practise of procedural justice became a strategic initiative. In their effort to address the perceived shortcomings in prevailing strategic management philosophies (driven solely by economic imperatives), Kim and Mauborgne (1998, 2005) suggested that people respond to fair treatment on two levels. The first is the emotional level where employees feel recognised and valued, thereby fostering the development of commitment and loyalty. The second is the intellectual level where people are inspired to do their best thinking and to share their ideas. It was argued that this strategy provides organisations with advantages not experienced by organisations run only by economic imperatives. Kim and Mauborgne outlined a strategy for management that entails a three step 'fair process': (1) it involves individuals in decisions that affect them; (2) it ensures that everyone knows why a particular decision has been made; and (3) it provides people with clarity as to new expectations. Kim and Mauborgne argued further, that procedural justice is the key to achieving the best possible economic outcomes for organisations.

5.1.3 Workplace justice scales

The current analysis investigates individual items that contribute to three different constructs: the AWS variable of fairness; procedural justice and management trustworthiness. These constructs come from different literatures within academic research. While the literatures have different foci, it is believed that findings from each will contribute to the others and provide some clarity as to the importance of the practise of fair procedures in the workplace.

Fairness is one of six areas of worklife (Leiter & Maslach, 2006), in which matches or mismatches are thought to relate to the development of burnout or engagement in workers. Procedural justice is a large research area which has examined the role of participative justice in cooperation and goal oriented behaviour within the workplace (Colquitt et al., 2001; Judge & Colquitt, 2004). Management trustworthiness is based on employee perceptions of management ability, benevolence and integrity. (Mayer & Davis, 1999; Mayer, Davis & Schoorman, 1995; Whitener, Brodt, Korsgaard & Werner, 1998). It is noted at this juncture that distributive justice, another form of justice that is discussed in organisational literature, is not a part of the current discussion. This is because distributive justice is outcome driven, rather than procedurally driven, and consequently, it is traditionally thought of as 'top down' in nature (Cook & Hegtvedt, 1983).

Fairness

Leiter and Maslach's (1999, 2004, 2006) 'six areas of worklife' focuses on those aspects of the work environment which are implicated when workers are: (1) engaged in their work (Schaufeli & Bakker, 2003) or (2) suffering burnout (Demerouti, Bakker, Vardakou & Kantas, 2002; Maslach, Schaufeli & Leiter, 2001). Miller (2001) commented that people believe that they are entitled to respect, and Leiter and Maslach (1999) noted that people read the presence of fair practices within the workplace as indications of such respect and concern for their well being. Interestingly, Mayer and Davis (1999) called management concern for workers' wellbeing 'benevolence'. It is therefore posited that worker experience of fair workplace practices signals to workers that their management is benevolent.

Procedural Justice

Communication and openness are widely cited in the literature in the context of procedural justice (Colquitt et al., 2001; Judge & Colquitt, 2004; Kim & Mauborgene, 1998; Kivimaki, Ferrie, Head, Shipley, Vahtera & Marmot, 2004). Some researchers (Colquitt et al., 2001; Judge & Colquitt, 2004) saw organisational injustice as a stressor – an aspect of work which causes employees to doubt their ability to do the job required and hence directly affecting worker efficacy because workers experienced cognitive dissonance. If people are unable to do anything about their distress because of a power imbalance and the threat to continued employment, there is consequent resentment, hostility, ill will and outrage among employees. Frost (2003) suggested that ignoring the emotional impact on workers was a costly mistake for managements to make, as people who are unhappy disconnect from their work. Their attention is turned to the causes of their distress, rather than performing their job to the best of their ability. Skarlicki and Latham (1996) found that training of managers in justice was effective in improving workplace relationships. Furthermore, Kivimaki and colleagues (2004) found that favourable changes in justice within the workplace were associated with reduced health risks for employees.

Perceptions of Management Trustworthiness

Mayer, Davis and Schoorman (1995) prepared a framework for studying management trustworthiness from the perspective of employees. For managers to be trusted workers must perceive that: they have the requisite skills and aptitude to deal with the situation at hand (ability), that they are considerate and treat employees with

respect (benevolence), and that they demonstrate congruence in their statements and actions (integrity) (Mayer et al, 1995; Mayer & Davis, 1998). Whitener et al. (1998) said that specific behaviours: behavioural integrity, sharing and delegation, communication and demonstration of concern were obvious characteristics of managements high in ability, benevolence and integrity. Davis, Schoorman, Mayer and Tan (2000) found that it is the capacity to 'get things done' (ability) which inspires trust from workers. Brown (2002) found that management honesty (integrity) has a direct link to employees' trust in management. Mayer and Davis (1999) argued that a benevolent manager would enhance opportunities for employees to achieve positive outcomes that are both economic and psychological. This is reminiscent of Kim and Mauborgne's (1998) argument that the practise of procedural justice will, by its transparent and inclusive decision making, clear guidelines, respect and encouragement of individual contributions, endow organisations with opportunities to develop market leadership.

Albrecht (2002) commented that those leaders, who enjoyed the trust of their workforce, would not be obliged to spend time and energy actively forcing change through their organizations or dealing with opposition within the workforce. Mayer and Davis (1999) suggested that scrutiny of the factors of trustworthiness could inform management choices as to appropriate ways to deal with relationships in the workplace. Whitener et al. (1998) suggested that it was up to managements to take the first step in initiating trusting relationships within workplaces. Furthermore, that it was of considerable economic advantage for managements to do so.

Consistencies between the constructs

The parallels between fairness and procedural justice in relation to workplace equity are evident in that both have been linked to the development of burnout, and ultimately, to depression and stress induced physical disease (for example, Leiter & Maslach, 2004; Kivimaki et al., 2004). The link between these two constructs and management trustworthiness becomes apparent when the psychological contract between workers and management is considered (Rousseau, 1995). In regard to descriptions of the three aspects of management trustworthiness, language describing integrity is probably the most overtly aligned to that describing fairness and procedural justice, in that it describes consistent and fair dealings with employees. However all aspects of management trustworthiness describe the situation whereby trusting relationships between employer and employee are established. Furthermore, Whitener et al. (1998) suggested that managements hold the initiative in the control of the workplace climate that underpins those relationships.

5.1.4 Aim and hypothesis of the current study

In view of the outlined consistencies between fairness (Leiter & Maslach, 1999; 2004; 2006), procedural justice (Chen et al., 2004; Kim & Mauborgne, 1998) and management trustworthiness (Mayer & Davis, 1999), it is proposed that these constructs cover a great deal of common ground. If this is the case, it could well be that findings pertinent to management trustworthiness literature are relevant also to the procedural justice literature. Therefore, for example, Davis et al.'s (2000) finding of enhanced productivity and profitability associated with management trustworthiness would be confirmatory of Kim and Mauborgne's (1998) thesis that organisations, diligent in the practise of procedural justice, would reap significant

economic benefits as a result. In addition, direct relationships have been found between workers' experienced injustice to absenteeism (De Boer et al., 2002; Head et al., 2006), heart disease (De Vogli et al., 2007; Kuper et al., 2002), depression (Smith et al., 2005) and burnout (Siegrist, 1996), all of which have the potential to reduce organisational profitability.

Whitener et al. (1999) recommended that managers who were interested in establishing trust in the workplace must take the first step, and that this would be repaid in terms of organisational profitability. Indeed, Skarlicki and Latham (1996) found that training of managers in justice was effective in improving workplace relationships. Furthermore, Kivimaki and colleagues (2004) found that favourable reverses of organisational injustice were associated with improved health outcomes for workers. Consequently it is posited that, if large projected overlaps between the three constructs of fairness, procedural justice and management trustworthiness are found, greater insight will be gained into some of the mechanisms by which organisations can contribute to their own success. It is therefore hypothesized that confirmatory factor analysis (CFA) will corroborate that fairness, procedural justice and management trustworthiness are measuring similar constructs.

5.2 Method

5.2.1 Participants

For information in regard to participants in this study see section 4.3.1. (p. 133).

5.2.2 Materials

Details of the workplace justice measures included in the survey are provided below:

Fairness

The fairness construct was one of six variables (the others being workload, control, reward, community and values), measured by means of six items on a five point Likert scale, from the Areas of Worklife Survey (AWS) (Leiter and Maslach, 2006). Leiter and Maslach suggested that reported mismatches on any of the areas of worklife could well be related to the development of burnout in workers. Cronbach's alphas for fairness are displayed with other justice constructs from the current study in Table 5.1.

Procedural Justice

The procedural justice measure (Moorman, Blakely & Niehoff, 1998) consisted of two components, a six item interactional justice measure and a six item procedural justice measure. Moorman et al. however reported the combined measure. This lead has been followed in the current study as the two components were very highly correlated ($r = .92$, n = 561, $p < .001$). The 12 procedural justice items used a 7 point Likert scale. Cronbach's alpha information on the procedural justice measure can be found in Table 5.1.

Management Trustworthiness and Trust.

Measures for management trustworthiness included: ability (6 items), benevolence (5 items) and integrity (6 items). The items came from Mayer and Davis (1998). Management trustworthiness items were measured on a 5 point Likert scale as were the four items on the trust in management scale. Table 5.1 provides information on Cronbach's alphas for all study variables.

Table 5.1. Cronbach's alphas of justice and management trustworthiness variables as originally reported and in the two phases of the current study.

	Origin	Original α Reported	α Teachers' Survey	α Online Survey
Fairness (AWS)	Leiter & Maslach, 2006	.82	.86	.87
Procedural Justice	Moorman, Blakely & Niehoff, 1998	.98	.98	.97
Ability		.85	.93	.93
	Mayer & Davis, 1999	(.88)		
Benevolence		.87	.92	.92
		(.89)		
Integrity		.82	.93	.92
		(.88)		
Trust in Management		.59	.77	.75
		(.60)		

Note. Mayer & Davis' study was longitudinal, second wave is shown in parentheses.

5.2.3 Procedure

The current study used SPSS 14 and Amos 7 to investigate relationships between these variables using confirmatory factor analysis (CFA) (Kline, 1998) and a structural equation modelling (SEM) approach. The advantage of using a SEM approach is that it allows researchers to account for error which might be intrinsic to the measured indicators and to assess whether the sample data is a good fit to the proposed theoretical model (Cunningham, 2007). Structural equation modeling is a multivariate technique which uses multiple regression and factor analysis to determine relationships between measured variables (represented by squares or rectangles) and the latent variables(represented by circles or ovals) they contribute to. Unlike traditional methods of data analysis which sum and then average items which contribute to a scale, SEM procedures evaluate the contribution each item makes to a latent variable. Therefore, within the SEM process it is necessary to "establish construct validity of an instrument every time it is used in a different

context" (Eriksson-Hallberg, 2005, p. 9). Hence the process confirms each instrument's validity in relation to observed data from particular respondents.

Based on very high correlations between variables assessed in the traditional way (by summing items and averaging their products) in the current study, an à priori assumption was made that the variables were covering a great deal of common ground (see Table 5.2). This hypothesis formed the basis of re-specification of models in the study.

Table 5.2. Correlations between Fairness (AWS), Procedural Justice Measures and Management Trustworthiness Measures

		1	2	3	4	5	6
1	Fairness (AWS)	-					
2	Interactional Justice	.79***	-				
3	Procedural Justice	.80***	.92***	-			
4	Management Ability	.71***	.74***	.74***	-		
5	Management Benevolence	.76***	.81***	.78***	.80***	-	
6	Management Integrity	.79***	.83***	.82***	.85***	.89***	-
7	Trust in Management	.71***	.73***	.73***	.77***	.81***	.82***

*** p <.001

The strategy employed in the current study involved investigation of initial one factor congeneric models, using maximum likelihood estimation, for each construct under consideration before the full model was assembled. Throughout each stage of testing, the chi-square statistic (which must be non significant for model fit), was examined. In SEM, significance in chi square means the given model's covariance structure (proposed by the researcher) is significantly different from the observed

covariance matrix (Garson, 2007). If the fit was unsatisfactory, changes were made to the model one at a time, as long as the changes made substantive sense as suggested by Cunningham (2007). It is noted that in the current study, redundancy between items firstly within scales and later between scales was of particular interest.

A number of other measures of fit were used in the research, these included:

(a). Root mean-square error of approximation (RMSEA) which should be less than .05 (although values between .05 and .08 can indicate reasonable fit).

(b). The Goodness-of-Fit index (GFI) which should be greater than .95.

(c). The Tucker-Lewis index (TLI) (also called the non-normed fit index), this is one index which can exceed the value of one, and acceptable values of TLI are greater than .95.

(d). the comparative fit index (CFI), is similar to the TLI, however values must fall between 0 and 1. Like the TLI, acceptable CFI values are greater than .95 (Cunningham, 2007; Kline, 1998).

In addition the expected cross validation index (ECVI) was used to present confidence intervals (CI), with two readings (the LO90 and HI90) representing the boundaries of the 90% CI. As Amos 7 only provides information on a 90% CI, another index, (the Hoelter .05), was used to suggest a critical N for accepting fit of a model to the .05 level of significance.

The present study used the teachers' phase of the survey as the calibration sample and the online phase as the validation sample of each model. Changes to measurement models were made on the basis of:

(a). Inspection of the standardized residuals covariance matrix; values above two indicated significant difference in covariances between two items.

(b). Inspection of sample correlations. Those that exceeded 0.8 were indications of possible item redundancy and eigenvalue output beneath the correlation matrices provided an indication of the number of factors that might be appropriate in the proposed model.

(c). Magnitude and significance of factor coefficient parameters were examined; those with non-significant or low factor coefficients were removed.

(d). Amos 7 also provides modification indices that make information available as to regression weights. These indicate possible cross loading of items in multiple CFA and the presence of correlated error terms in one factor congeneric models (Cunningham, 2007).

5.3 Results.

Confirmatory factor analysis, initially with one factor congeneric models using Fairness (AWS), Procedural Justice, and Management Trustworthiness separately, and later in a three factor structure with the three variables together, was used in analysing these data. Prior to SEM analysis, data were screened for missing or out of range values in the two data sets separately.

5.3.1 Missing Values Analyses

Teachers

Twenty of the 297 teaching respondents had more than 12 data points missing. In most cases, these respondents had not provided responses within one section (the

management trustworthiness and trust section) indicating that they may have had no one senior to them in their school. Data from the 20 respondents were removed from the data set for the purposes of the current analysis because they demonstrated this clear pattern in their missing values. Of the remaining 277 respondents, 22 had only one data point missing. Because SEM does not tolerate missing data, a missing values analysis (MVA) was conducted using SPSS 14. A significant Little's MCAR (missing completely at random) test, χ^2 (1908) = 2210.30, p<.001, indicated that these values were not missing at random. Because of this anomaly, it was decided to use only data from the 255 respondents with no missing values.

Online

Of the 264 online respondents, four demonstrated a pattern of missing values with more than one item missing from the management trustworthiness section (the only section in the online survey which was optional), these four were removed from the data set. Of the remaining 260 respondents, 13 were missing one data value from the same section. A MVA was conducted and resulted in a non-significant Little's MCAR test, χ^2 (1166) = 1229.49, p =.10. This indicated that the missing values had been MCAR or missing at random (MAR). Replacement data for the missing values was imputed by expectation maximisation (EM).

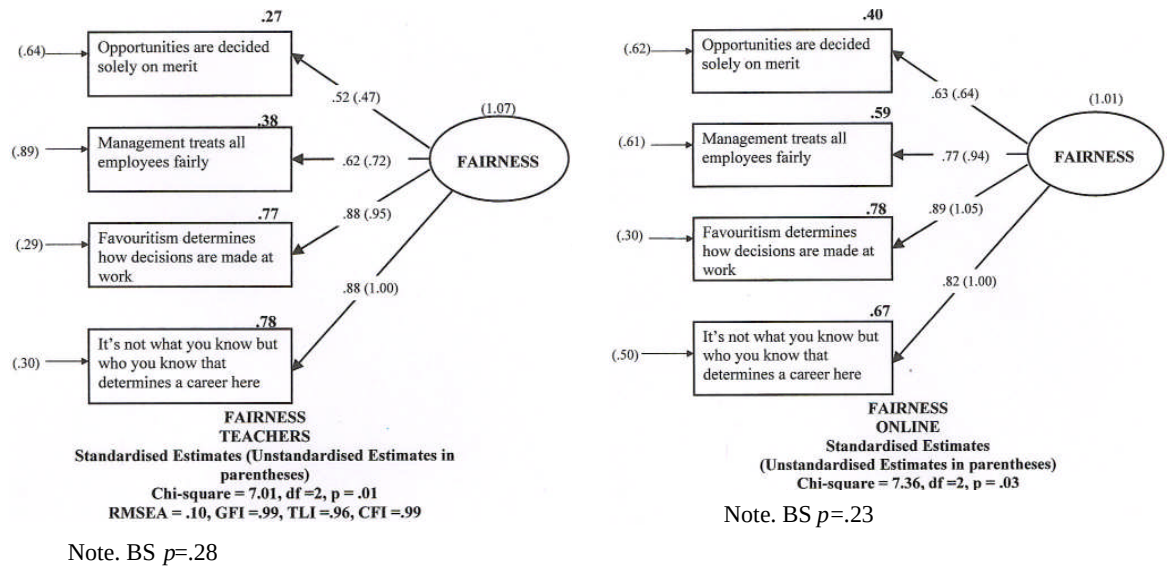
5.3.2 One factor Congeneric Tests of Constructs

As anticipated, lack of fit in the present study could, in most cases, be attributed to redundancy of items as evidenced by high sample correlations. Modification indices directed researchers' attention to those items that displayed considerable overlap with other items in each scale and those that appeared multiple times in combination with different items were targeted.

Fairness (AWS)

This measure consisted of six items. The first model to be tested was identical to that proposed by Leiter and Maslach (2006). The initial one factor congeneric model therefore included all 6 items but achieved a very poor fit in a model with the teachers' data attached χ^2 (9) = 67.87, *p*<.001, RMSEA=.16, GFI =.91, TLI = .86, CFI =.91. Examination of model output suggested that the item 'there are effective appeal procedures available when I question the fairness of a decision" had considerable overlap with the content of other items. This item was removed, however the second model also suggested a poor fit to the data χ^2 (5) =29.42, *p*<.001, RMSEA =.14, GFI=.95, TLI=.91, CFI =.96. Factor score weights and modification indices indicated further problems with 'resources are allocated fairly here', so this item was also removed. While the third model fitted both sets of data: teachers χ^2 (2) = 7.01, *p*=.03, RMSEA= 1.00, GFI = .98, TLI=.96 and CFI= .99 with a Bollen Stine (BS) bootstrap *p* = .28; and online χ^2 (2) = 7.36, p=.03 (BS *p* = .25), RMSEA= 1.02, GFI = .99, TLI=.97 and CFI= .99, modification indices suggested that further fit could be obtained by correlating the error terms for 'management treats all employees fairly' and 'opportunities are decided solely on merit'. It was deemed that such a step could not be justified on theoretical grounds as 'fairness' and 'decisions on merit' may have differing connotations (Cunningham, 2007). In regard to the calibration sample, expected cross validation index (ECVI) for the teachers' data (n = 255) model was .09 (.07 to .14) for a confidence interval of 90%, and the Hoelter (*p* <.05) index suggested a sample size of n= 218 as the critical number for accepting that the model is correct (Schreiber, Nora, Stage, Barlow, & King, 2006).

Figure 5.1 demonstrates the individual item loadings on fairness with the two data sets. The fairness construct was further subjected to test of invariant covariance (saturated model) which is expressed in a difference in chi-square test ($\Delta\chi^2$). This test fitted the data, $\Delta\ \chi^2$ (10) =19.17, *p*=.04, RMSEA=.04, GFI=.98, TLI=.99, CFI=.99, indicating that both groups of respondents had similar understandings of the items comprising fairness.



Note. BS *p*=.28

Note. BS *p*=.23

Figure 5.1. One factor congeneric model for fairness, teachers' data (n=255) and online data (n=260).

Procedural Justice

Moorman et al.'s (1998) measure of procedural justice had 12 items. Initially, these items were divided into six interactional justice items and six procedural justice ones, however as mentioned in Chapter 4, following the lead of Moorman et al., these were combined because interactional and procedural justice correlated very highly (*r* =.92). The initial one factor congeneric model therefore included all 12 items but

achieved a very poor fit in testing with the teachers' data set. Sample correlations indicated multiple examples of *r* >.80, suggesting that the items were almost identical (Cunningham, 2007). Table 5.3 tracks the modification process taken to achieve fit to the data with the teachers' data set.

Table 5.3. Procedural Justice Items and Modifications made to achieve Fit with the Calibration Sample (teachers) data (n=255)

Model	*χ2*	*df*	*p*	*SRMR*	*RMSEA*	*GFI*	*TLI*	*CFI*	*Item removed*
1	568.93	54	<.001	.04	.19	.67	.85	.88	PJ1. Requests for clarification or additional information are allowed
2	555.20	44	<.001	.04	.21	.68	.84	.88	PJ 10 you are treated with kindness and consideration
3	350.19	35	<.001	.03	.19	.77	.89	.91	PJ 2 You are treated with respect and dignity
4	264.60	27	<.001	.03	.19	.81	.90	.92	PJ 8. Complete information on which the decisions are based is collected.
5	159.86	20	<.001	.03	.17	.96	.93	.95	PJ 4. All sides affected by decisions are represented
6	97.47	14	<.001	.02	.15	.90	.94	.96	PJ 11. You are shown concern for your rights as an employee
7	34.03	9	<.001	.02	.11	.96	.98	.99	PJ 9. Opportunities are provided to appeal or challenge the decisions
8	17.26	5	<.01	.01	.11	.98	.98	.99	PJ12. You are helped to understand the reasons for the decision
9	1.37	2	.50	.00	.00	1.00	1.00	1.00	

The final model for procedural justice achieved good fit with the teachers' data χ^2 (2) = 1.37, *p*=.50, RMSEA= .00, GFI = 1.00, TLI= 1.00 and CFI= 1.00 and with the online data χ^2 (2) = 2.01, *p*=.37, RMSEA= .00, GFI = 1.00, TLI= 1.00 and CFI= 1.00. However, in regard to the calibration sample, the ECVI for the teachers' data (n = 255) model was .07 (.07 to .09) for a confidence interval of 90%, and the Hoelter

($p < .05$) index suggested a sample size of $n = 1109$ as the critical number for accepting that the model is correct (Schreiber et al., 2006). As the teacher sample was considerably smaller ($n = 255$) this signaled problems for the current model of procedural justice in spite of indicated data fit after model re-specification. Further evidence that the scale is problematic was indicated by high error values for each measured item. Byrne (2001) suggested that high error values reflect on the adequacy of the items in measuring the underlying constructs. According to Garson (2007) high error values combined with standardised weights close to one (these range from .87 to .91 for the teachers' model), are indicative of problems with multicollinearity among the indicator items. This problem was kept in mind for future modeling with the procedural justice variable as it was suspected that the items contributing to the procedural justice construct reflected much of the content of the management trustworthiness indicator items.

Figure 5.2 demonstrates individual item loadings on the procedural justice construct with the two data sets. As indicated by possible multicollinearity within the final model, it is noted that the items removed in this process shared considerable content with those that were retained (see Table 5.4). Further testing for invariance between the groups using the difference in chi-square test and the saturated model of invariant covariance could not be computed due to a $\chi^2 = 0$ with the four items remaining in the final model and so was calculated with five items using the eighth model (see Table 5.4). This fitted the data well, $\Delta\chi^2$ (15)= 22.80, $p = .09$, RMSEA=.03, GFI=.98, TLI=1.00, CFI=1.00, indicating that the groups had similar understandings of procedural justice on the five items in model eight and

extrapolating this to the final model it was deemed that respondents interpreted the final four items similarly.

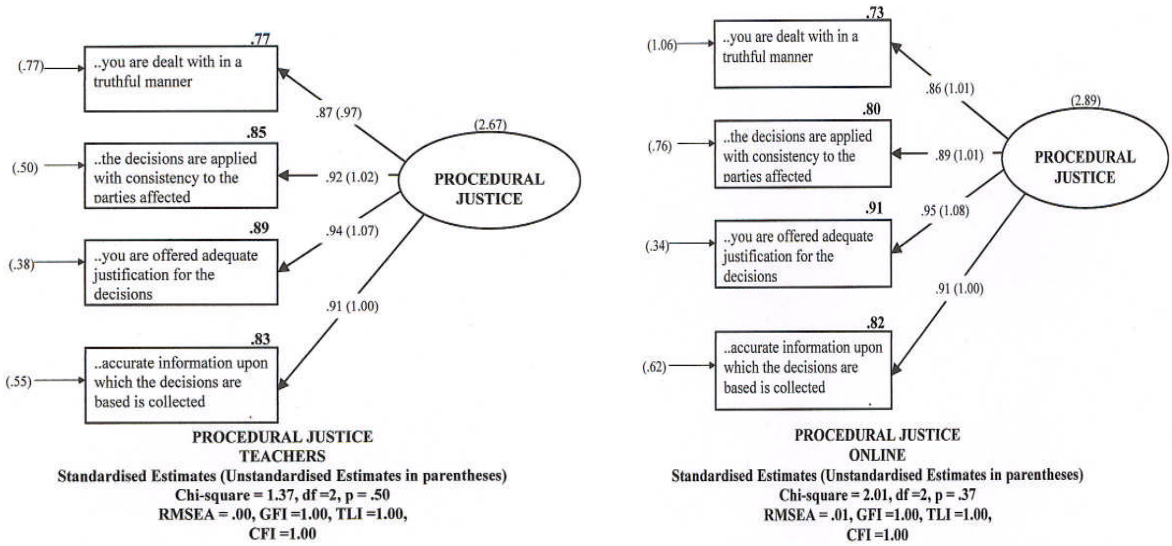


Figure 5.2. One Factor Congeneric Model for Procedural Justice, Teachers' Data (n=255) and Online Data (n=260)

Management Trustworthiness Variables.

Mayer and Davis (1999) argued that their measures for top management (called school administration in the first phase and senior management in the second phase of the current study) trustworthiness factors were distinct factors and if they were combined, information would be lost. However, exploratory maximum likelihood factor analyses of the two data sets from the current study using SPSS 14 revealed that the 17 indicators pointed to two factors rather than three. The Kaiser-Meyer-Olkin value was .97 and the Bartlett's test of sphericity was significant for both data sets, indicating that the data were factorable. Maximum likelihood factor analysis revealed the data contained two components with eigenvalues exceeding 1. These explained 66.76 and 4.43 percent of the variance in the teachers' data (n=255), and

64.77 and 4.30 percent of the variance in the online data (n=260). Pattern matrices from the two data sets are provided in Table 5.4 which demonstrates that the two data sets behaved similarly in regard to items from the management trustworthiness scales, with benevolence and integrity items loading together, the ability items loading on a separate factor and one management integrity item (italicised in Table 5.4) demonstrating considerable cross loading.

Table 5.4. Pattern matrices showing factor loadings from the two data sets

	Teachers' data		Online data	
	1	2	1	2
Benevolence 3:SM will go out of its way to help me	.94	-.09	. 76	.05
Integrity 5: I like SM's values	.88	.03	.74	.15
Benevolence 5: SM is very concerned about my welfare	.86	-.00	.88	-.01
Benevolence 2: My needs and desires are very important to SM	.85	-.11	.94	-.12
Benevolence 1: SM would not knowingly do anything to hurt me	.82	.00	.82	-.07
Benevolence 4: SM really looks out for what is important to me	.78	.10	.81	.05
Integrity 6: SM tried hard to be fair in its dealings with others	.77	.12	.88	-.04
Integrity 2: SM has a strong sense of justice	.77	.17	.85	.09
Integrity: I never have to wonder whether SM will stick to its word	.65	.17	.81	.00
Integrity 4 (RS): SM's actions and behaviours are not very consistent	.54	.13	.44	.13
Integrity 3: Sound principles seem to guide SM's behaviour	*.44*	*.46*	*.47*	*.41*
Ability 2: SM has specialized capabilities that can increase our performance	-.15	.84	.07	.71
Ability 6: SM is very capable of performing its job	.09	.80	.07	.84
Ability 3: I feel very confident about SM's skills	.16	.79	.32	.61
Ability 5: SM is well qualified	.15	.73	-.09	.96
Ability 1: SM is known to be successful at the things it tries to do	.15	.71	.02	.78
Ability 4: SM has much knowledge about the work that needs to be done	.13	.71	.01	.77

Note 1. Extraction Method: Maximum Likelihood. Rotation Method: Oblimin with Kaiser Normalization. Rotation converged in 8 iterations.
Note 2. SM = Senior Management

Component correlation matrices for both data sets were high (.81 for the teachers' data and .83 for the online data). Information of correlations between items and factors is presented in the structure matrices provided in Table 5.5, and demonstrate that while items clearly loaded onto two separate factors, each item was still highly correlated with the alternative factor.

Table 5.5. Structure matrices for teachers and online data, demonstrating item and factor correlations

	Teachers' data		Online data	
	1	2	1	2
Integrity 2: SM has a strong sense of justice	.91	.80	.92	.79
Integrity 5: I like SM's values	.90	.74	.86	.77
Integrity 6: SM tried hard to be fair in its dealings with others	.87	.75	.90	.77
Benevolence 3:SM will go out of its way to help me	.87	.67	.81	.69
Benevolence 4: SM really looks out for what is important to me	.86	.73	.85	.73
Benevolence 5: SM is very concerned about my welfare	.86	.69	.87	.73
Benevolence 1: SM would not knowingly do anything to hurt me	.83	.67	.76	.61
Integrity: I never have to wonder whether SM will stick to its word	.79	.70	.80	.67
Benevolence 2: My needs and desires are very important to SM	.76	.58	.84	.67
Integrity 4 (RS): SM's actions and behaviours are not very consistent	.65	.57	.55	.50
Ability 3: I feel very confident about SM's skills	.80	.92	.82	.87
Ability 6: SM is very capable of performing its job	.74	.88	.77	.90
Ability 5: SM is well qualified	.75	.86	.71	.89
Ability 1: SM is known to be successful at the things it tries to do	.72	.83	.67	.80
Ability 4: SM has much knowledge about the work that needs to be done	.71	.82	.65	.78
Integrity 3: Sound principles seem to guide SM's behaviour	.81	.81	.82	.81
Ability 2: SM has specialized capabilities that can increase our performance	.54	.72	.66	.76

Note 1. Extraction Method: Maximum Likelihood. Rotation Method: Oblimin with Kaiser Normalization
Note 2. SM = Senior Management

Inspection of scree plots (see Figure 5.3), indicated that a one factor solution was more appropriate to the indicators. This was confirmed in further parallel analyses (Pallant, 2005) which indicated that only one component exceeded the corresponding criterion values for randomly generated data matrix of the same size (17 indicators x 255 respondents and 17 indicators x 260 respondents).

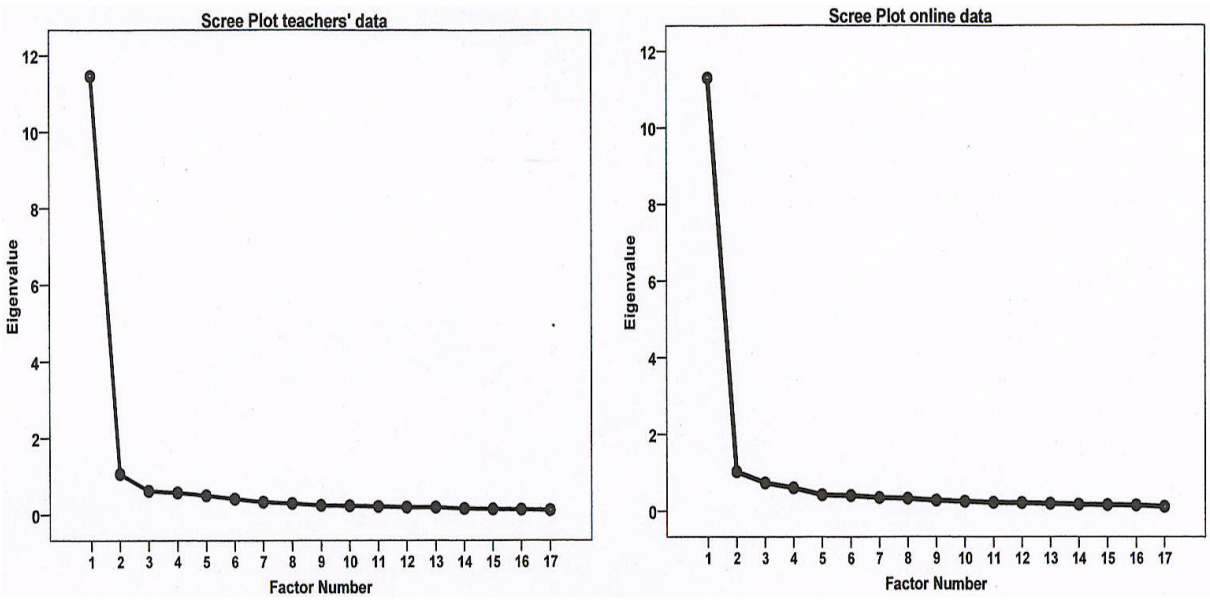


Figure 5.3. Scree plots for teachers' data (left) and online data (right) for Management Trustworthiness items.

Mayer and Davis' (1998) measures of management trustworthiness had 17 items. The initial one factor congeneric model therefore included all 17 items but achieved a very poor fit to the data with the teachers' data set (χ^2 (119) = 591.42, *p* <.001, RMSEA=1.25, GFI=.72, TLI=.88, CFI=.89). Table 5.6 tracks the modification process taken to achieve fit to the data. The final model achieved adequate fit with the teachers' χ^2 (14) =35.36, *p* <.01, RMSEA=.08, GFI=.96, TLI=.98, CFI=.99 and the online data set χ^2 (14) =33.25, *p* <.01, RMSEA=.08,

GFI=.97, TLI=.98, CFI=.99. In regard to the calibration sample, the ECVI for the teachers' data (n = 255) model was .25 (.20 to .33) for a confidence interval of 90%, and the Hoelter (p <.05) index suggested a sample size of n = 171 as the critical number for accepting that the model is correct (Schreiber et al., 2006). Figure 5.4 demonstrates individual item loadings on the management trustworthiness construct with the two data sets to a final solution with seven indicators. Further testing for invariance between the groups using the difference in chi-square test and the saturated model of invariant covariance fitted the data, $\Delta\chi^2$ (28)=56.68, *p* <.01, RMSEA=.05, GFI=.97, TLI=.99, CFI=.99, indicating that the groups had similar understandings of management trustworthiness on the seven items that remained on the scale.

Table 5.6. Management Trustworthiness Items and Modifications made to achieve Fit with the Data, Calibration sample (teachers) data (n=255)

Model	χ2	df	*p*	SRMR	RMSEA	GFI	TLI	CFI	Item removed
1	591.42	119	<.001	.05	.13	.72	.88	.89	Ability 1. SM is known to be successful at the things it tries to do.
2	519.52	104	<.001	.05	.13	.75	.89	.90	Integrity 4. Senior management's actions and behaviours are not very consistent
3	501.97	90	<.001	.05	.13	.74	.88	.90	Benevolence 3.Senior management will go out of its way to help me
4	428.59	77	<.001	.05	.13	.76	.89	.91	Benevolence 2. My needs and desires are very important to Senior management
5	332.23	65	<.001	.04	.13	.79	.91	.92	Ability 1. Senior management is known to be successful at the things it tries to do
6	288.43	54	<.001	.04	.13	.82	.92	.93	Ability 4. Senior management has much knowledge about the work that needs to be done
7	213.53	44	<.001	.04	.12	.85	.93	.94	Ability 2. I feel very confident about Senior management's skills
8	120.37	35	<.001	.03	.10	.91	.95	.97	Ability 5. Senior management is well qualified
9	76.49	27	<.001	.02	.09	.94	.97	.98	Benevolence 5. Senior management is very concerned about my welfare
10	56.72	20	<.001	.02	.09	.95	.97	.98	Integrity 2. I never have to wonder whether Senior management will stick to its word
Final model 7 items	35.36	14	<.01	.02	.08	.96	.98	.99	

Five integrity items (2, 3, 4, 5, and 6), one benevolence item (4) and one ability item (6) were retained in the final one factor model for management trustworthiness demonstrated in Figure 5.4.

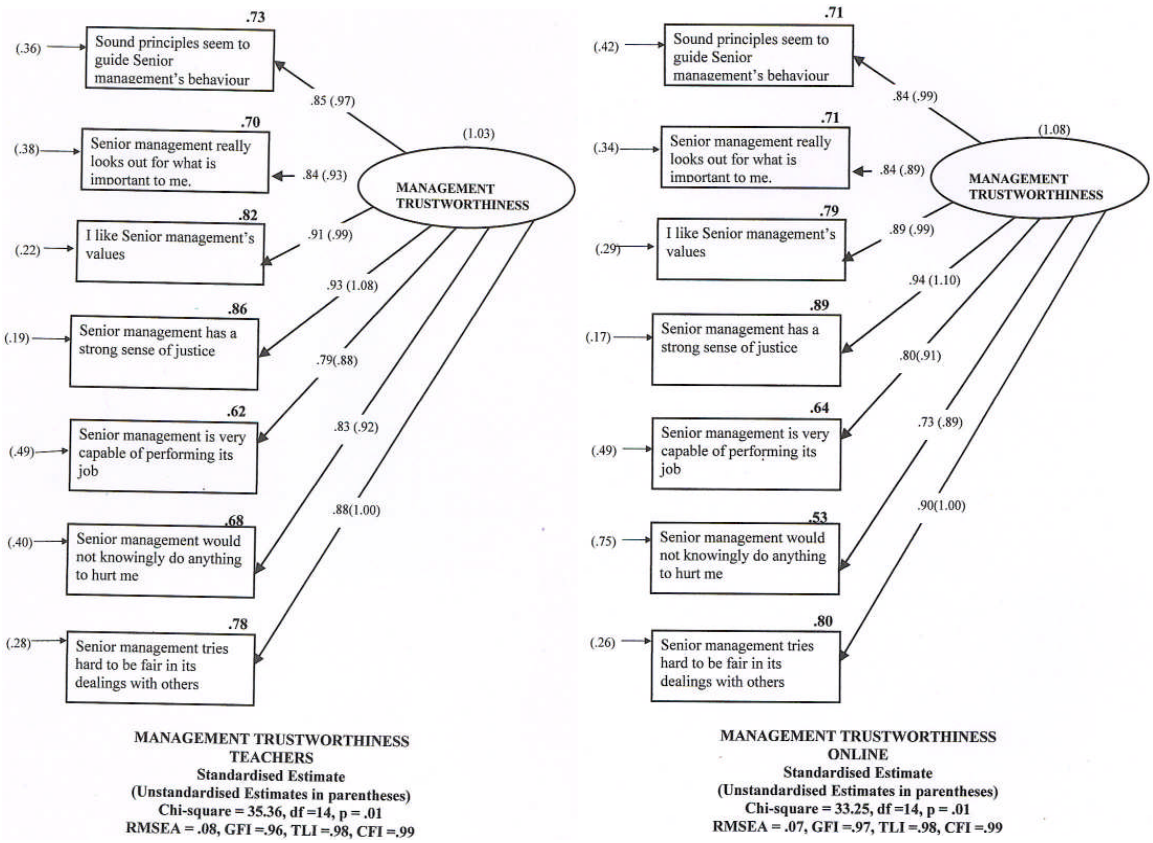


Figure 5.4. One Factor Congeneric Model for Management Trustworthiness, Teachers' Data (n=255) and Online Data (n=260)

Trust in Management

Mayer and Davis (1999) reported Cronbach's alphas of .59 and .60 in two waves for their four item Trust in Management construct. In the present study Cronbach's alphas of .77 and .75 were found for the teachers and online data respectively. A one factor congeneric model achieved an uneasy fit with the teachers data, χ^2 (2) = 7.01, p <.05, RMSEA=.10, GFI=.99, TLI=.96, CFI=.99. Two of the items, which were noted as problematic in the modification indices, were reverse scored. When the error terms of these two items were correlated, indicating that participants responded similarly to the two negatively worded items and they therefore shared considerable

measurement error (Byrne, 2001), an improved fit to the teachers' data was noted χ^2 (1) = .79, *p*=.37, RMSEA=.00, GFI=1.00, TLI=1.00, CFI=1.00. The online data set also achieved fit with this model χ^2 (1) = .01, *p*=.91, RMSEA=.00, GFI=1.00, TLI=1.02, CFI=1.00. The model is illustrated in Figure 5.5. A test for invariance, between the two data sets, on trust in management also achieved marginal fit with the data, $\Delta\ \chi^2$ (10)= 33.03, *p*<.001, RMSEA=.07, GFI=.97, TLI=.95, CFI=.96. In regard to the calibration sample, the ECVI for the teachers' data (n = 255) model was .07 (.08 to .10) for a confidence interval of 90%, and the Hoelter (p <.05) index suggested a sample size of n= 1235 as the critical number (Schreiber et al., 2006). As the current calibration sample was considerably less than this it was observed that the scale was problematic in regard to its current application. Examination of the demonstrably different loadings on the various items of Trust in Management in Figure 5.5 alerted the researcher to further problems with the use of this scale. Item loadings onto trust in management are substantially different between datasets.

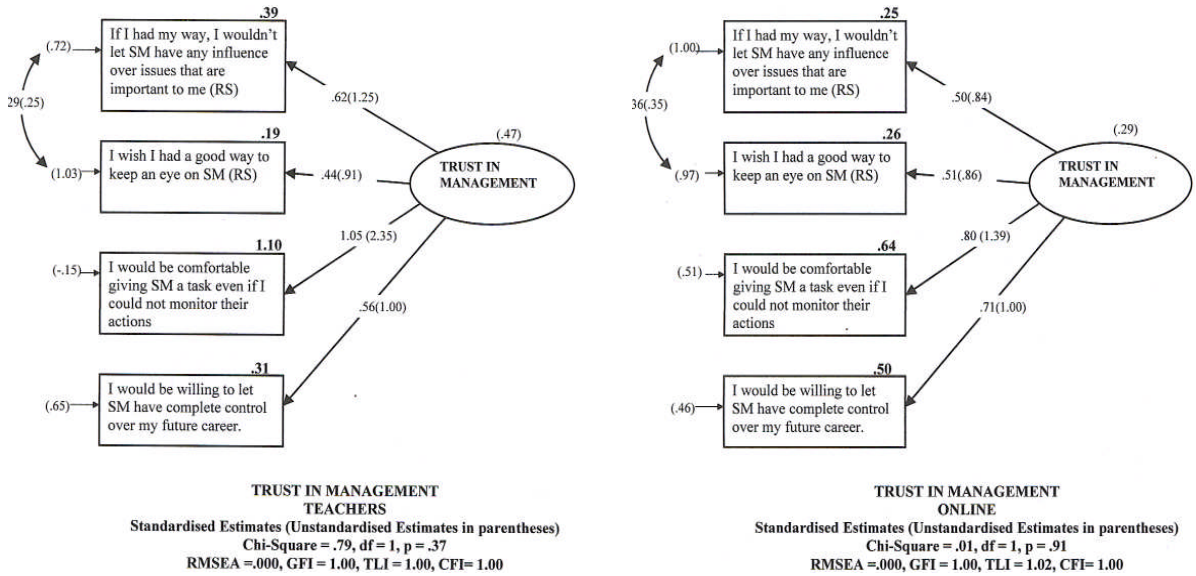


Figure 5.5. One Factor Congeneric Model, Trust in Management, Teachers' Data (n= 255) and Online Data (n=260)

Examination of factor score weights in Amos 7 output confirmed substantial differences between data sets that could prove problematic in further modelling. These are provided in Table 5.7 and demonstrate that the only item that demonstrated consistency between the datasets and contributed substantially to the factor was 'I would be comfortable giving Senior Management a task even if I could not monitor their actions'. This item indicated 'over fitting' in the calibration data set (β= 1.05) and consequently the error term for this item was a negative number. According to Garson (2006) such an occurance suggests multicollinearity. Therefore, in this case it was deemed that the items "I wish I had a good way to keep an eye on Senior Management" (RS) and "I would be comfortable giving Senior Management a task even if I could not monitor their actions" were colinear. The trust in management scale was therefore eliminated from further modeling in the current research.

Table 5.7. Comparison of Factor Score Weights between Teachers and Online Datasets in Regard to the Trust for Management scale

	Factor score weights	
	Teachers	Online
If I had my way, I wouldn't let SM have any influence over issues that are important to me (RS)	-.05	.07
I wish I had a good way to keep an eye on SM (RS)	-.02	.07
I would be comfortable giving SM a task even if I could not monitor their actions	.53	.30
I would be willing to let SM have complete control over my future career.	-.05	.24

Confirmatory Factor Analysis of three variables.

The three variables: fairness, procedural justice and management trustworthiness derived through previous one factor congeneric models were subsequently subjected to a confirmatory factor analysis in Amos 7. The initial three factor model did not

reach adequate fit with the teachers' data χ^2 (87) = 206.46, *p* <. 001, RMSEA=.07, GFI=.91, TLI=.96, CFI=.97. It was noted that items from the different scales overlapped (for example, an AWS item, 'management treats all employees fairly' and management trustworthiness (integrity) item, 'senior management tries hard to be fair in its dealings with others'). Three items had to be removed in order to achieve fit with the data. These are detailed in Table 5.9. This model fitted the teachers' data well with a Bollen-Stine bootstrap, χ^2 (62) = 98.19, *p* <.05 (BS *p*=.47), RMSEA=.05, GFI=.94, TLI=.99, CFI=1.00. The model also fitted the online data set χ^2 (51) = 66.57, *p* = .07, RMSEA=.03, GFI=.96, TLI=.99, CFI=1.00. In regard to the calibration sample, the ECVI for the teachers' data (n = 255) model was .52 (.44 to .66) for a confidence interval of 90%, and the Hoelter (*p* <.05) index suggested a sample size of n= 227 as the critical number for accepting that the model is correct (Schreiber et al., 2006). Figure 5.8 reproduces the final model in the two data sets.

Table 5.8. Confirmatory Factor Analysis Items and Modifications made to achieve Fit with the Calibration sample (teachers) data (n=255)

Model	*χ2*	*df*	*p*	*SRMR*	*RMSEA*	*GFI*	*TLI*	*CFI*	*Item removed*
1	206.46	87	<.001	.05	07	.91	.96	.97	AWS 20 Management treats all employees fairly
2	129.18	74	<.001	.04	.05	.93	.98	.98	AWS 19 Opportunities are decided solely on merit
3	98.19	62	<.01	.03	.05	.94	.99	.99	Integrity 4. (RS): SM's actions and behaviours are not very consistent
4	77.00	51	<.05	.02	.05	.95	.99	.99	
	Bollen-Stine bootstrap				*p* = .47				

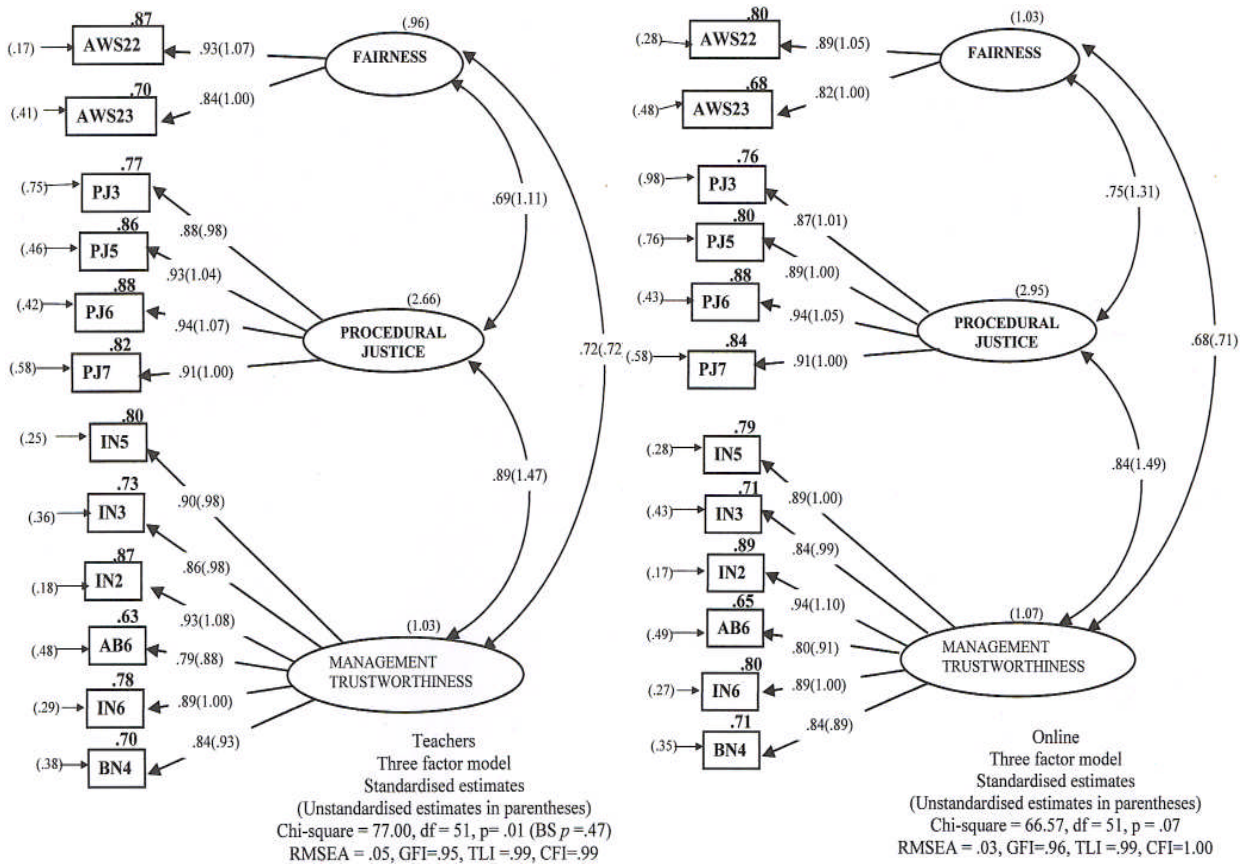


Figure 5.6. Three factor model, teachers' data sets (n=255) and online data set (n=260)

Further Data reduction. One factor congeneric model for the combined measures

It is noted at this juncture that very high correlations between the latent variables identified in this study and eigenvalues achieved in the confirmatory factor analysis for the three factor model in the calibration data set (8.54; .86; .69; .36; .30; .25; .22; .20; .17; .16; .14; .11) do suggest that the items contributing to the latent variables are actually measuring one construct (Kline, 1998). An additional indicator for this was a Cronbach's alpha of .96 on all measured items contributing to the three factor confirmatory factor analysis for both data sets. Therefore a further one factor congeneric model was examined using only the variables from the three factor

confirmatory factor analysis. Table 5.9 traces the process of achieving fit with the data. It is noted that the procedural justice measures proved problematic when the one factor congeneric model was constructed for this latent variable. Within the present model it was noticed that there was considerable overlap between procedural justice items and management trustworthiness items (for example, 'the decisions are applied with consistency to the parties affected' (PJ) and an integrity item from the management trustworthiness scale 'Senior Management has a strong sense of justice').

Table 5.9. Progress of One Factor Congeneric Model for Combined Variables, Calibration sample (teachers) data (n=255)

Model	*χ2*	*df*	*p*	*SRMR*	*RMSEA*	*GFI*	*TLI*	*CFI*	*Item removed*
1	415.74	54	<.001	.05	.16	.74	.86	.89	AWS 21 Favouritism determines how decisions are made at work
2	288.49	44	<.001	.04	.15	.76	.90	.92	PJ7 ..accurate information upon which the decisions are based is collected
3	205.57	35	<.001	.04	.14	.83	.91	.95	PJ 6… you are offered adequate justification for the decisions
4	99.27	27	<.001	.03	.10	.92	.96	.97	PJ5. ..the decisions are applied with consistency to the parties affected.
5	36.09	20	<.05	.02	.06	.97	.99	.99	PJ3 .. you are dealt with in a truthful manner.
Final model	18.79	14	.17	.01	.04	.98	1.00	1.00	

During the process of achieving fit, one of the fairness (AWS) and all procedural justice items were eliminated, leaving only one fairness variable and six management trustworthiness variables (four of which were integrity items). The choice to remove the procedural justice items rather than the management trustworthiness items they overlapped with, was based on the larger error values of the former and the fact that each of these variables were signaled as having multiple

problematic relationships within modification indices. Adequate fit was achieved with both the teachers' data set χ^2 (14) = 18.79, *p* =.17, RMSEA=.04, GFI=.98, TLI=.98, CFI=1.00 and the online data set χ^2 (14) = 18.47, *p* =.19, RMSEA=.04, GFI=.98, TLI=1.00, CFI=1.00. Further testing for invariance between the groups using the difference in chi-square test and the saturated model of invariant covariance fitted the data well, $\Delta\chi^2$ (28)= 28.49, *p* =.44, RMSEA=.01, GFI=.99, TLI=1.00, CFI=1.00, indicating that the groups had similar understandings of the items. It is noted that the one AWS item that remained in this combined scale "it's not what you know, but who you know, that determines a career here" also has large measurement error terms on both data sets, suggesting perhaps that its place within the construct is debatable (Byrne, 2001). It was decided to leave the item within the combined justice management trustworthiness (CJMT) model for three reasons: further calibration of this combined variable will be conducted in Chapter 6; the current model achieved adequate fit with both data sets; and invariance between data sets was established.

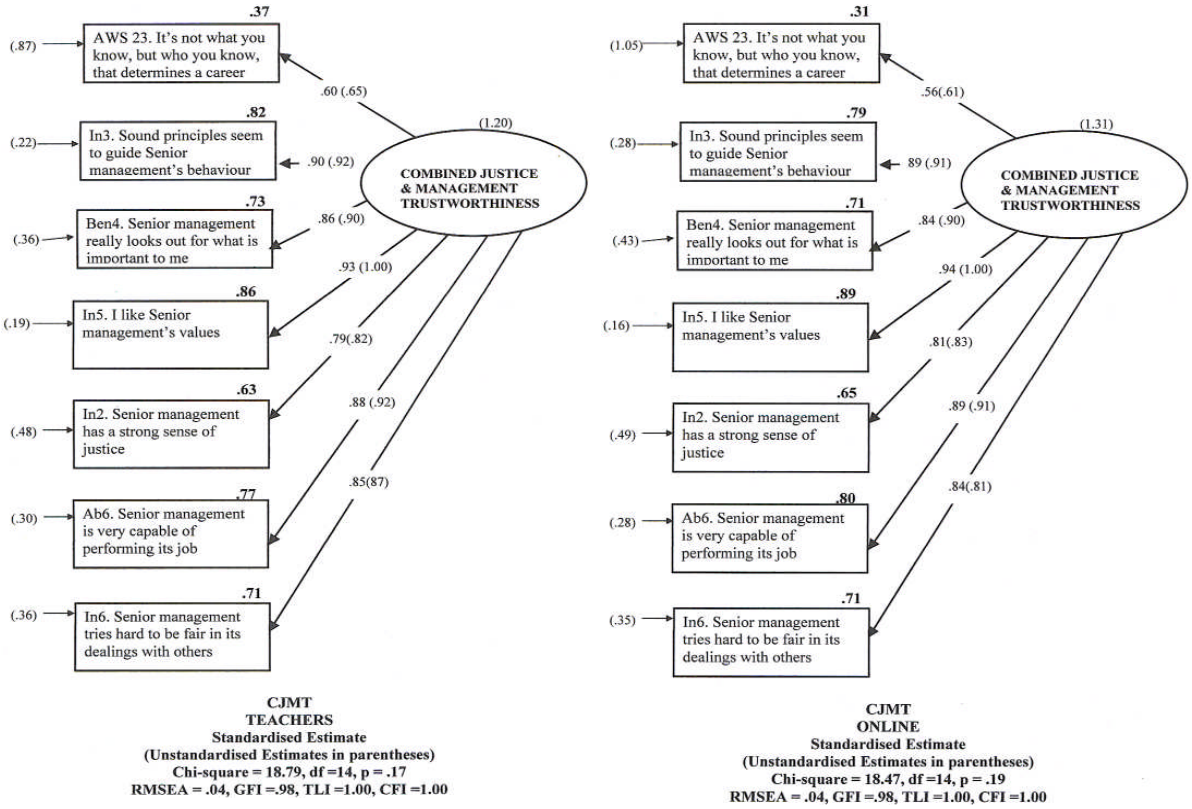


Figure 5.7. Final one factor congeneric models for combined management trustworthiness, procedural justice and fairness (AWS) variables.

5.4 Discussion

The main objective of the analysis conducted in this chapter was to investigate possible overlaps between fairness (AWS) (Leiter & Maslach, 1999, 2004, 2006), procedural justice (Moorman et al., 1998) and management trustworthiness (Mayer & Davis, 1999). A combination of statistical techniques, including confirmatory factor analysis and Structural Equation Modeling were used to confirm common ground between the measures (see Figure 5.6). Finally, a one factor congeneric model, which initially comprised elements of all three measures, demonstrated that one item from the fairness (Leiter & Maslach) construct, and six items from the

management trustworthiness (Mayer & Davis) construct was representative of the main elements of the three measures. One important proviso regarding SEM is that construct validity of an instrument must be established every time it is used (Erikson-Hallberg, 2005). Because of this, two different groups of participants were used to calibrate and validate the models. Consequently it is suggested that these findings may generalise to other populations of workers.

In the current study, redundancy of an item provided sufficient indication for its removal from the model, because it was theorised that the content of that item was covered by other remaining items. In the case of the procedural justice items within the current study; the obvious multicollinearity between the items constituting the measure, was also observed when the items were combined with those of the management trustworthiness construct. However, Mayer and Davis' (1998) warning about loss of information when measures are combined in one entity is noted and will be referred to in later chapters (Chapters 6, 7 and 8). For this reason, removed items have been presented in tabular form (Tables 5.3, 5.6, 5.8 and 5.9) for the information they can provide as to how organisations can best provide justice within their workplaces. It is therefore cautioned that the removal of items does not indicate that their content is irrelevant, but that the content is covered by other items in the analysis.

In each case of the initial one factor congeneric models testing the separate constructs, model fit was improved by the removal of items; two items in the case of the AWS variable of fairness, eight items in the case of procedural justice (Table 5.3), and ten items in the case of management trustworthiness (Table 5.6). The resultant latent variables further demonstrated high correlations in a confirmatory

three factor analysis (Figure 5.6) suggesting they were measuring similar constructs (Kline, 1998). The distribution of eigenvalues from this model supported a one factor construct. This was confirmed in the subsequent one factor congeneric model where the items from the CFA were included together. The hypothesis of the current study, that the measures were covering similar ground has therefore been supported.

However, it is cautioned that while correlations between latent variables (see Figure 5.6) were high, in the case of the AWS variable of fairness they were indicative that some distinction could be made between it and procedural justice and management trustworthiness (for example, teachers' data, fairness and procedural justice $r = .69$ and fairness and management trustworthiness $r = .72$). This was further exemplified in the CJMT variable (see Figure 5.7), where the one remaining AWS item demonstrated quite a large measurement error value (.87 teachers' data and 1.05 online data) in this context; whereas in its original AWS fairness context the measurement error values reported for this variable were much smaller (.30 for the teachers' data and .50 for the online data, see Figure 5.1). According to Byrne (2001, p. 9) measurement error can arise from "some characteristic that is considered to be specific (or unique) to a particular indicator variable". Byrne then suggested that this sort of error "represents *non-random* measurement error" (italics in the original). Therefore it is observed that while the measures cover common ground, the procedural justice and management trustworthiness variables have more in common with each other than either has with the AWS variable of fairness.

All three variables investigated in this research have been developed within different academic contexts. In 1999, when Leiter and Maslach first explained their understanding of fairness and its relationship to the development of burnout or

engagement with work, they stated that research investigating fairness in a workplace context was rare. They saw fairness as an essential aspect of leadership, and thus indicated that management set the tone of fairness within organisations. Later, the extensive body of literature (examples of which are Chen et al., 2003; Colquitt et al., 2001; Judge & Colquitt, 2004) on procedural justice was acknowledged by Leiter and Maslach (2004).

The procedural justice literature is consistent in its reflection that people value fair practices within their work environment, more than favourable outcomes for themselves, and furthermore, fair processes and interactional justice are linked within the procedural justice literature to employee satisfaction, commitment and organisational citizenship behaviour (Colquitt et al.). Kim and Mauborgne (1998, 2005) extended these findings and theorized that the intentional practice of procedural justice within workplaces would constitute strategic management initiatives. These initiatives would, in turn, evoke the best possible contributions from employees and ultimately win extensive market share for the organizations that employed them. Kim and Mauborgne (1998) also warned that "the violation of fair process…will have a negative effect on their [employees'] performance via its negative effect on voluntary cooperation and knowledge sharing" (p. 265). This is reminiscent of Whitener et al.'s (1998) suggestion that management trustworthiness was central to the establishment of high morale in a workplace thereby contributing to a highly productive workforce.

Conclusion

Analyses performed in this chapter have found considerable overlap between fairness (Leiter & Maslach, 2006), procedural justice (Moorman et al., 1998) and

management trustworthiness (Mayer & Davis, 1999). It is therefore posited that the demonstrated commonalities between the subject variables contributes to an enhanced understanding of how organisations can achieve voluntary cooperation from their workforces and, as a consequence, optimise their levels of productivity.

Chapter 6

Factor analyses, Recalculation of Variables and K-means Cluster Analysis revisited

Chapters 6 and 7 cover some complex statistical analyses. Chapter 6 reports a maximum likelihood factor analysis, and the process of data preparation whereby the weighted items were used to calculate the variables in preparation for path analysis. These analyses involved Amos 7, which does not tolerate missing values, so it was necessary to use a subset of the original data set that was originally used in Chapter 5 to calculate the combined justice and management trustworthiness (CJMT) measure. It was intended to investigate the interrelationships of variables within groups identified in cluster analyis in order to achieve a comprehensive understanding of the dynamics involved. Therefore it soon became apparent that with a reduced data set (from n=561 to n=515) and the recalibration of the variables, the original clusters reported in Chapter 4 no longer accurately represented responses. It was therefore deemed necessary to perform a second K-means cluster analysis to reflect responses more accurately. This chapter covers the data preparation process and the second K-means cluster analysis. The following chapter (Chapter 7) will report subsequent path analyses that were conducted with the groups identified in the second cluster analysis and provide some discussion of them.

6.1 Introduction

Earlier cluster analyses in this project (Chapter 4) revealed consistencies in how variables in the areas of worklife survey (AWS) (Leiter & Maslach, 2006), the

management trustworthiness variables (Mayer & Davis, 1999) and the procedural justice variables (Moorman et al. 1998), interacted in relation to employee burnout and engagement. It was observed that apart from workload, all areas of worklife followed a similar pattern in relation to the clusters. Those respondents who reported higher agreement with engagement variables indicated matches on control, reward, community, fairness and values, and those respondents who indicated higher agreement with the burnout variables reported mismatches on the areas of worklife. In a similar vein, when developing the research model (Figure 1.1) the researcher depicted the areas of worklife as overlapping. This was based on the suggestion by Leiter and Maslach (1999) that "each area has implications for the other areas" (p. 473). Leiter and Maslach further posited however, that in spite of the overlap the areas of worklife are distinct domains that would provide a framework for understanding respondent perspectives on how people interact with their work environments in relation to the development of burnout and engagement.

Current research into burnout has emphasized worker engagement as an important construct which forms either an opposite pole to burnout (Leiter & Maslach, 2004; Maslach, et al., 2001), or a separate variable that correlates negatively with burnout (Schaufeli & Bakker, 2004). Consequently, it was important that engagement be specifically targeted in relation to the areas of worklife as well as burnout. The current study has used the Utrecht Engagement scale (UWES) (Schaufeli & Bakker, 2003) to measure engagement and the Oldenburg Burnout Inventory (OLBI) (Demerouti et al., 2002) to measure burnout, whereas Leiter and Maslach (2004) used the Maslach Burnout Inventory (MBI) to measure both engagement and burnout.

While the previous cluster analysis reported in Chapter 4 was useful in terms of determining that the areas of worklife had a clear pattern in relationship to engagement and burnout; it did not provide information as how the areas of worklife may interact within the workplace. Neither did it provide direction as to what implications the areas of worklife have for each other in combination with the burnout variables of exhaustion, disengagement (OLBI) or the engagement variables of absorption, dedication and vigour (UWES). Leiter and Maslach's (2004) suggestion was that the areas of worklife might be interrelated in a mediation pattern with control as the first predictor variable loading onto workload, reward, fairness and community. Their model then demonstrated workload loading directly onto exhaustion, with reward, fairness and community further mediated by the sixth area of worklife, values, before loading onto exhaustion, cynicism and efficacy (the variables of the MBI). The model tested in the current analyses and illustrated in Figure 6.1 was therefore extrapolated from that of Leiter and Maslach (2004). It is noted however that the pathways in Figure 6.1 could be said to be somewhat arbitrary in regard to relationships of the AWS variables to the UWES and the OLBI because the previous research of Leiter and Maslach had used the MBI in relation to the AWS variables. It is thought that the current research represents the first attempt to demonstrate relationships between the AWS and the OLBI and UWES.

The task of testing this model initially required a series of factor analyses on the items that contributed to the variables. The maximum likelihood analyses conducted in the current chapter proved problematic (see Appendix C) in that the factors derived in the analyses did not perfectly reflect the variables as intended by their authors. This meant that in order to achieve a more accurate testing of the model

extrapolated from Leiter and Maslach (2004) it was necessary to recalculate the variables using a weighted method outlined in Cunningham (2007). This then rendered the original data set unusable due to problems with missing data values. This problem surfaced in Chapter 5 during the development of the combined justice, management trustworthiness (CJMT) measure, where a missing completely at random (MCAR) test indicated that the values missing from 42 respondents to the teachers' survey were not missing at random and it was therefore not prudent to use expectation maximisation (EM) procedures to replace the missing values. In addition, data from four respondents were removed from the online data set for the same reason. This therefore left data from 255 teachers and 260 online respondents making a total of 515 respondents for the current series of analyses.

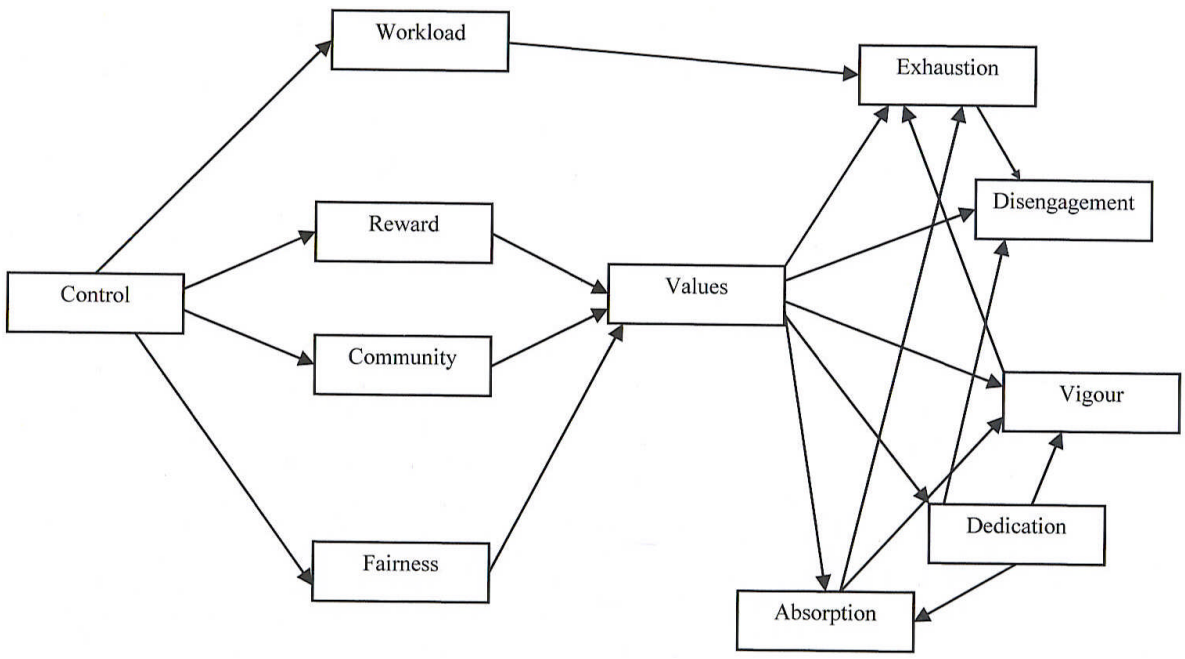


Figure 6.1. Projected relationship of AWS to OLBI and UWES variables, extrapolated from Leiter and Maslach (2004).

6.1.1 Combined Justice and Management Trustworthiness measure (CJMT)

This measure was developed in chapter 5 where the fairness construct from the AWS (Leiter & Maslach, 2006) was compared with procedural justice measures (Moorman et al., 1998) and management trustworthiness measures (Mayer & Davis, 1999). For parsimony, information of the items comprising CJMT may be found in Table 6.1.

Table 6.1. Combined Justice and Management Trustworthiness (CJMT) items.

Item	*Origin*
It's not what you know, but who you know, that determines a career here	Leiter & Maslach, 2006
Sound principles seem to guide Senior management's behaviour (Integrity)	Mayer & Davis, 1999
Senior management really looks out for what is important to me (Benevolence)	
I like Senior management's values (Integrity)	
Senior management has a strong sense of justice (Integrity)	
Senior management is very capable of performing its job (Ability)	
Senior management tries hard to be fair in its dealings with others (Integrity)	

6.1.2 Exploratory Factor Analyses

In order to substantiate item loadings, a series of exploratory maximum likelihood factor analyses were conducted. These are located in Appendix C. In regard to the AWS items: an original community item, "people trust one another to fulfil their roles", a fairness item "resources are allocated fairly around here" and a control item, "I can influence management to obtain the equipment and space I need for my work", loaded in the factor with all of the values items. The structure matrix for the AWS items (Appendix C, Table C.4) reveals that the control item correlated with a

number of study variables. In addition, a values item “working here forces me to compromise my values’ loaded with the community items (Table C.3).

As expected, the UWES loaded onto three factors; however two of these were three items only. One consisted of vigour items and the other consisted of absorption items. The third factor included all the dedication items, three vigour items and three absorption items. Unexpectedly the OLBI also loaded onto three factors, however one of these was a single exhaustion item, “usually, I can manage the amount of my work well”. Of the other two factors, one consisted of six exhaustion items and two disengagement item, and the other factor included six disengagement items and one exhaustion item. These anomalies indicated that more extensive data preparation for path analysis was required.

The data preparation undertaken for the current study is only indicated in view of the anomalies apparent from the maximum likelihood factor analysis with this group of respondents. All measures used in this study have been previously used and rigorously validated with other respondents (for example, Demerouti, Bakker, Vardakou & Kantas, 2002; Halbesleben & Demerouti, 2005; Leiter & Maslach, 2006; Schaufeli & Bakker, 2003; Schaufeli & Buunk, 2003; Schaufeli, Taris & Salanova, 2007). Therefore the current reworking of the variables is driven by the data collected for the present study. Dillon and McDonald (2001) suggested that the traditional method of calculating the mean of items in a scale is, in most cases, an adequate method of data preparation. However this has to be predicated on the results of a factor analysis that has supported the measures. In the present research, this is not the case; the maximum likelihood factor analysis has demonstrated that intercorrelations are different for this sample, and that individual scale items did not

necessarily load onto one common factor. Therefore, to obtain as clear a picture as possible as to the workplace experiences of those experiencing engagement or burnout in their work, it was decided that data for path analysis would be prepared according to the method outlined by Cunningham (2007).

Data preparation.

Composite scores for individuals in each variable were calculated by constructing individual one-factor congeneric (1FC) models for each variable in Amos 7. The combined subset of the data (n=515) used in the development of the CJMT (Chapter 5) was used to construct these scores. Once a one-factor model was fitted and accepted, thereby indicating good construct validity, factor score weights were divided by the sum of factor score regression weights for each scale. These were then used in SPSS to calculate the composite individual scores for each variable by multiplying the resultant number with the item score and adding the products. Table 6.2 provides statistics of item treatment using this procedure. The reliability measure used during the procedure was the squared multiple correlation (SMC) (also referred to as R^2 values by Cunningham), where scores of > .30 indicate an acceptable indicator item. Items that did not achieve such a score were not included in variable calculation; these items are indicated in italics in Table 6.2 along with those that did not indicate initial fit with the 1FC models.

Table 6.2. Individual items in each of the AWS, OLBI and UWES variables

Workload (AWS)					
Survey no	*Item no.*	*Item*	*Factor Weight*	*x with score*	*SMC*
17	W1	I do not have time to do the work that must be done (RS)	.43	.53	.76
10	W2	*I work intensely for prolonged periods of time (RS).*			
19	W3	After work I come home too tired to do the things I like to do (RS).	.11	.14	.34
5	W4	*I have so much work to do on the job that it takes me away from my personal interests (RS).*			
29	W5	I have enough time to do what's important in my job	.22	.27	.56
4	W6	*I leave my work behind when I go home at the end of the day*	*.04*	*.05*	*.14*
Scale fit statistics: χ^2 (2) = .19, *p* =.91, RMSEA<.001 GFI=1.00, TLI=1.00, CFI=1.00					

Control (AWS)					
Survey no	*Item no.*	*Item*	*Factor Weight*	*x with score*	*SMC*
B2	Ctl1	I have control over how I do my work	.51	.63	.75
B7	Ctl2	*I can influence management to obtain the equipment and space I need for my work*			
B1	Ctl3	I have professional autonomy/independence in my work	.30	.37	.64
Scale fit statistics: χ^2 (1) =.011, *p* =.08, RMSEA=.06 GFI=.98, TLI=.98, CFI=1.00					

Note. Control was tested within a two factor model with the 3 items from Workload. This was because 1FC models will not work in Amos 7 with only 3 items (Cunningham, 2007, personal communication)

Reward (AWS)					
Survey no	*Item no.*	*Item*	*Factor Weight*	*x with score*	*SMC*
B20	R1	I receive recognition from others for my work.	.18	.23	.57
B16	R2	My work is appreciated.	.35	.44	.76
B3	R3	My efforts usually go unnoticed (RS).	.18	.22	.65
B13	R4	I do not get recognised for all the things I contribute (RS).	.08	.11	.47
Scale fit statistics: χ^2 (1) = 1.68, *p* =.20, RMSEA=.04 GFI=1.00, TLI=1.00, CFI=1.00					

Community (AWS)					
Survey no	*Item no.*	*Item*	*Factor Weight*	*x with score*	*SMC*
B15	Cm1	People trust one another to fulfill their roles	.11	.11	.39
B22	Cm2	I am a member of a supportive work group	.25	.26	.63
B18	Cm3	Members of my group cooperate with each other.	.37	.38	.71
B9	Cm4	Members of my work group communicate openly.	.23	.24	.64
B25	Cm5	*I don't feel close to my colleagues (RS).*			
Scale fit statistics: χ^2 (2) = .92, *p* =.63, RMSEA<.001 GFI=1.00, TLI=1.00, CFI=1.00					

Table 6.2 continued.

Fairness (AWS)					
Survey no	*Item no.*	*Item*	*Factor Weight*	*x with score*	*SMC*
B26	F1	*Resources are allocated fairly here.*			
B12	F2	Opportunities are decided solely on merit.	.09	.11	.33
B11	F3	*There are effective appeal procedures available when I question the fairness of a decision.*			
B6	F4	Management treats all employees fairly.	.11	.14	.50
B21	F5	Favouritism determines how decisions are made at work (RS).	.36	.45	.79
B23	F6	It's not what you know but who you know that determines a career here (RS).	.25	.31	.72
Scale fit statistics: χ^2 (2) = 12.02, *p* <.01, RMSEA=.09 GFI=.98, TLI=.97, CFI=.99					

Values (AWS)					
Survey no	*Item no.*	*Item*	*Factor Weight*	*x with score*	*SMC*
B14	Val1	My values and the organisation's values are alike.	.39	.51	.77
B27	Val2	*The organisation's goals influence my day to day work activities*.			
B24	Val3	My personal career goals are consistent with the organisation's stated goals.	.12	.16	.39
B28	Val4	This organisation is committed to quality.	.13	.17	.44
B8	Val5	Working here forces me to compromise my values (RS).	.12	.15	.43
Scale fit statistics: χ^2(2) = .01, *p* =.98, RMSEA<.001 GFI=1.00, TLI=1.01, CFI=1.00					

Exhaustion (OLBI)					
Survey no	*Item no.*	*Item*	*Factor Weight*	*x with score*	*SMC*
Cb2	Ex1	There are days when I feel tired before I arrive at work (RS).	.09	.14	.31
Cb4	Ex2	After work, I tend to need more time than in the past in order to relax and feel better (RS).	.15	.25	.55
Cb5	*Ex3*	*I can tolerate the pressure of my work very well.*	*.09*	*.14*	*.28*
Cb8	Ex4	During my work, I often feel emotionally drained (RS).	.10	.17	.40
Cb10	Ex5	After working, I have enough time for my leisure activities.	.11	.15	.43
Cb12	*Ex6*	*After my work, I usually feel worn out and weary (RS).*			
Cb14	*Ex7*	*Usually, I can manage the amount of my work well.*			
Cb16	Ex8	*When I work, I usually feel energised.*	*.07*	*.12*	*.26*
Scale fit statistics: χ^2(9) = 19.65, *p* =.02, RMSEA=.05GFI=.99, TLI=.97, CFI=.94					

Table 6.2. Continued

Disengagement (OLBI)					
Survey no	*Item no.*	*Item*	*Factor Weight*	*x with score*	*SMC*
Cb1	Dis1	I always find new and interesting aspects of my work	.12	.17	.42
Cb3	Dis2	It happens more and more often that I talk about work in a negative way (RS).	.09	.13	.40
Cb6	Dis3	Lately, I tend to think less at work and do my job almost mechanically (RS).	.11	.15	.41
Cb7	Dis 4	I find my work to be a positive challenge	.19	.27	.58
Cb9	Dis5	Over time, one can become disconnected from this type of work (RS).	.07	.10	.31
Cb11	Dis6	*Sometimes I feel sickened by my work tasks (RS).*			
Cb13	Dis7	*This is the only type of work that I can imagine myself doing.*			
Cb15	Dis8	I feel more and more engaged in my work.	.12	.17	.41
Scale fit statistics: χ^2 (9) = 8.58, *p* =.48, RMSEA<.001,GFI=1.00, TLI=1.00, CFI=1.00					
Vigour (UWES)					
Survey no	*Item no.*	*Item*	*Factor Weight*	*x with score*	*SMC*
Ca6	Vig1	At my work, I feel bursting with energy	.18	.43	.74
Ca2	Vig2	At my job, I feel strong and vigorous	.16	.37	.69
Ca15	Vig3	When I get up in the morning, I feel like going to work	.06	.13	.47
Ca1	Vig4	*I can continue working for very long periods at a time.*			
Ca9	Vig5	*At my job, I am very resilient, mentally.*	*.03*	*.07*	*.17*
Ca8	Vig6	*At my work I always persevere, even when things do not go well.*			
Ca6	Vig1	At my work, I feel bursting with energy	.18	.43	.74
Ca2	Vig2	At my job, I feel strong and vigorous	.16	.37	.69
Scale fit statistics: χ^2 (2) = 11.54, *p* <.01, RMSEA=.10, GFI=1.00, TLI=.96, CFI=.99					
Dedication (UWES)					
Survey no	*Item no*	*Item*	*Factor Weight*	*x with score*	*SMC*
Ca3	Ded1	I find the work that I do full of meaning and purpose.	.08	.13	.56
Ca13	Ded2	I am enthusiastic about my job.	.21	.34	.81
Ca12	Ded3	My job inspires me.	.29	.46	.86
Ca7	Ded4	*I am proud of the work that I do.*			
Ca10	Ded5	To me, my job is challenging.	.04	.07	.36
Scale fit statistics: χ^2 (2) = 11.18, *p* <.01, RMSEA=09,GFI=.99, TLI=.98, CFI=.99					

Table 6.2. continued

Survey no	Item no.	Absorption (UWES) Item	Factor Weight	x with score	SMC
Ca17	Ab1	Time flies when I am working.	.37	.17	.34
Ca14	Ab2	*When I am working, I forget everything else around me.*			
Ca11	Ab3	*I feel happy when I am working intensely.*			
Ca16	Ab4	I am immersed in my work.	.37	.43	.62
Ca5	Ab5	I get carried away when I am working.	.20	.23	.41
Ca4	Ab6	It is difficult to detach myself from my job.	.14	.17	.37

Scale fit statistics: χ^2 (2) = 76.72, p <.001, RMSEA=.27,GFI=.93, TLI=.58, CFI=.90

Note for Absorption. A much improved fit was obtained through correlating error terms for Ab 5 and 6, however this was not deemed necessary to determine factor weights, although a common theme can readily be seen in the two items

Note. Items in italics were eliminated during one factor congeneric modeling or because of unacceptable SMC

The same treatment was applied to composite management trustworthiness variables, information on this is provided in Table 6.3.

Table 6.3. Individual items Composite Justice Management Trustworthiness (CJMT)

Survey no.	Item no.	Item (Items in italics were eliminated during one factor congeneric modeling or because of unacceptable SMC)	Factor Weight	x with score	SMC
B23	Fair	It's not what you know, but who you know, that determines a career here	.03	.03	.34
E3	In3	Sound principles seem to guide Senior management's behaviour *(Integrity)*	.10	.12	.74
E5	Ben4	Senior management really looks out for what is important to me *(Benevolence)*	.10	.12	.73
E6	In5	I like Senior management's values *(Integrity)*	.16	.18	.82
E7	In2	Senior management has a strong sense of justice *(Integrity)*	.25	.30	.89
E8	Ab6	Senior management is very capable of performing its job *(Ability)*	.07	.09	.65
E13	In6	Senior management tries hard to be fair in its dealings with others *(Integrity)*	.14	.16	.80

Scale fit statistics: χ^2 (14) = 18.69, p =.18 RMSEA=.03,GFI=.99,TLI=1.00, CFI=1.00

Information about the range of responses to the recalibrated variables, their means and standard deviations is provided in Table 6.4.

Table 6.4. Descriptive statistics weighted variables (n=515).

Scale (origin)	Variable	Range	Minimum	Maximum	Mean	SD
AWS	Workload	3.61	.94	4.55	2.36	.92
(Leiter and Maslach, 2006)	Control	4.00	1.00	5.00	3.76	.86
	Community	4.00	1.00	5.00	3.54	.86
	Fairness	4.00	1.00	5.00	2.91	1.02
	Reward	4.01	1.00	5.01	3.15	.92
	Values	4.00	1.00	5.00	3.36	.91
OLBI	Exhaustion	1.99	.85	2.84	2.00	.41
(Demerouti et al., 2002)	Disengagement	3.00	1.00	4.00	2.33	.52
UWES	Vigour	5.59	.00	5.59	2.96	.96
(Schaufeli and Bakker, 2003)	Dedication	6.00	.00	6.00	3.84	1.18
	Absorption	5.20	.80	6.00	3.76	.94
Composite Justice Management Trustworthiness		4.00	1.00	5.00	3.05	1.09

Subsequent correlations conducted to compare the results of the recalibrated measures with the original measures did support Dillon and McDonald's (2001) suggestion that "it don't make no nevermind" (p. 63) in most analyses, and in particular, those previously conducted in the current study. Correlations between the variables calculated by using the two different methods were as follows: workload *r* (513) =.86; control *r* (513) =.90; fairness *r* (513) =.95; community *r* (513) =.97; reward *r* (513) =.98;values *r* (513) =.92; dedication *r* (513) =.95; vigour *r* (513) =.88; absorption *r* (513) =.94; exhaustion *r* (513) =.93 and disengagement *r* (513) =.95. The presence of two *r* <.90 correlations (workload and vigour) however do support the use of the recalibrated variables in the current path analysis (Dillon & McDonald). The six items forming the original vigour construct loaded in two

separate ways (see Appendix C, Table C.7). Three items loaded with items from dedication and absorption, where they were indicative of inspiration, for example "When I get up in the morning, I feel like going to work". These were the items that contributed to the recalibrated vigour model (see Table 6.3). The other three items loaded together and were more evocative of strength, energy and the ability to sustain work for long periods of time. These items were eliminated in the variable recalibration process. Likewise, the recalibrated workload construct focused on time as a resource for doing what has to be done at work, for example "I do not have time to do the work that must be done" (RS). Therefore these two constructs are different from the original constructs as intended by their authors.

Tests for invariance between the two phases of the survey (Teachers n=255 and Online n=260) for the recalibrated variables are found in Table 6.5

Table 6.5. Tests for invariance between the two phases of the research on study variables.

	$\Delta\chi^2$	*df*	*p*	*RMSEA*	*GFI*	*TLI*	*CFI*
Workload & Control	33.29	15	<.05	.05	.98	.97	.98
Reward	22.32	10	<.05	.05	.98	.99	.99
Community	36.95	10	<.001	.07	.97	.96	.97
Fairness	18.70	10	<.05	.04	.98	.99	.99
Values	51.62	15	<.001	.07	.96	.93	.99
Exhaustion	12.91	10	.23	.02	.99	.99	.99
Disengagement	65.03	21	<.001	.06	.94	.92	.96
Vigour	26.86	10	<.01	.06	.98	.97	.98
Dedication	84.09	10	<.001	.12	.93	.92	.94
Absorption	47.86	15	<.001	.07	.97	.93	.95

Note. Workload and control were tested together because Amos 7 will not process small numbers of items comprising a scale.

In terms of fit, dedication and disengagement appeared to be the most problematic with high chi-square values, the RMSEA for disengagement was adequate but that

for dedication was not. This indicates substantial differences between responses in the two phases of the research and the items comprising dedication.

6.2 Cluster analysis revisited

The clusters derived in chapter 4 were defined by responses to burnout (OLBI) (Demerouti et al., 2002) and engagement (UWES) (Schaufeli & Bakker, 2003), and therefore provide profiles of different workplace experiences. Recalibration of the burnout and engagement variables meant that further path analysis using the clusters developed in Chapter 4, with the variables that had been calculated in the traditional way (by establishing a mean response to a scale), would not provide maximum information as to what was occurring in the work lives of people represented by the clusters. Because it was desirable to perform path analyses with the individual clusters, it was decided to complete the cluster analysis a second time. This was done using standardised scores derived from the variables developed in the previous section. Convergence into five clusters was achieved in 18 iterations. Final numbers in clusters were 73 (14.2%) in *The Empowered Group;* 110 (21.4%) in *The Under Pressure Group*; 158 (30.7%) in *The Unengaged Group*; 95(18.4%) in *The Burnout Experience 1 Group;* and 79 (15.3%) in *The Severe Burnout Group*. Table 6.6 provides Euclidean distances between final groups identified in the new cluster analysis and Table 6.7 provides central scores on the UWES and OLBI variables at each cluster centre.

Table 6.6. Euclidean distances between final new cluster centres.

Cluster	(NC1)	(NC2)	(NC3)	(NC4)
The Empowered Group (NC1)	-			
The Under Pressure Group (NC2)	2.01	-		
The Unengaged Group (NC3)	2.43	1.90	-	
The Burnout Experience 1 Group (NC4)	3.77	2.01	2.06	-
The Severe Burnout Group (NC5)	2.98	1.90	2.98	2.06

Table 6.7. Standardised scores at cluster centres

	New Clusters				
Defining variable	(NC1)	(NC2)	(NC3)	(NC4)	(NC5)
Exhaustion	-1.08	.43	-.64	.97	.52
Disengagement	-1.25	-.38	-.19	.51	1.46
Vigour	1.31	.43	.13	-.73	-1.19
Dedication	1.19	.71	-.04	-.33	-1.61
Absorption	.84	.88	-.46	.13	-1.25

Note. 'NC' = new cluster

Like the groups from the original cluster analysis outlined in Chapter 4 the groups identified in the new cluster analysis represent groups of individuals with the most similar experiences of the defining variables (Clatworthy, Bick, Hankins, Weinman & Horne, 2005): i.e. the burnout variables of exhaustion and disengagement (Demerouti et al., 2002), and the engagement variables of vigour, dedication and absorption (Schaufeli & Bakker, 2003). When Euclidean distance (see Table 6.6) is used to define similarity between individuals within a cluster it is a measure of score elevation rather than simply patterns of response (Clatworthy et al., 2005), hence the K-means cluster analysis process has defined groups indicating the

most similar elevations of scores. It is noted that these clusters have been derived from a subset of the dataset used to define the original clusters described in chapter 4, furthermore, the UWES and OLBI variables have been recalibrated using a weighted method of calculation; therefore the cluster profiles are different.

Table 6.8 provides a comparison of the distribution of clusters and demonstrates that some individuals moved from one cluster to another. The first two groups identified in the new cluster analysis (The Empowered Group and The Under Pressure Group) still tended to endorse the UWES variables of dedication, absorption and vigour more highly than the OLBI variables of exhaustion and disengagement. Similarly, The Burnout Experience 1 Group and The Severe Burnout Group were characterised by higher endorsement of the OLBI variables of exhaustion and disengagement than the UWES variables of dedication, absorption and vigour. However, there was considerable movement in all groups. In most cases this was from one group to a neighbouring group, although 20 respondents moved from the original cluster four to new cluster two (The Under Pressure Group) and three respondents moved from the original cluster one to The Burnout Experience 1 Group.

Table 6.8. Comparison of cluster memberships

		Original Clusters											
		Cluster 1 En1		Cluster 2 En2		Cluster 3 Bu1		Cluster 4 Bu2		Cluster 5 Bu3		Total	
		N	%	N	%	N	%	N	%	N	%	N	%
New Clusters	1	58	46.8	15	11.4	0	0	0	0	0	0	73	14.2
	2	63	50.8	27	20.5	0	0	20	18.3	0	0	110	21.4
	3	0	0	83	62.9	51	53.1	23	21.1	1	1.9	158	30.7
	4	3	2.4	7	5.3	20	20.8	43	57.8	2	3.7	95	18.4
	5	0	0	0	0	25	26.0	3	2.8	51	94.4	79	15.3
		124	100	132	100	96	100	109	100	54	100	515	100

Figure 6.2 plots cluster profiles. Original profiles are provided in Figure 6.2a and the new cluster profiles are presented in Figure 6.2b. For purposes of definition the new clusters were assigned names: new cluster 1 (NC1) was referred to as The Empowered Group; new cluster 2 (NC2) was referred to as The Under Pressure Group; new cluster three (NC3) was referred to as The Unengaged Group; new cluster 4 (NC4) was referred to as Burnout Experience 1 Group; and new cluster 5 (NC5) was referred to as The Severe Burnout Group. These names appear on the X-axis in the depiction of the new clusters in Figure 6.2.

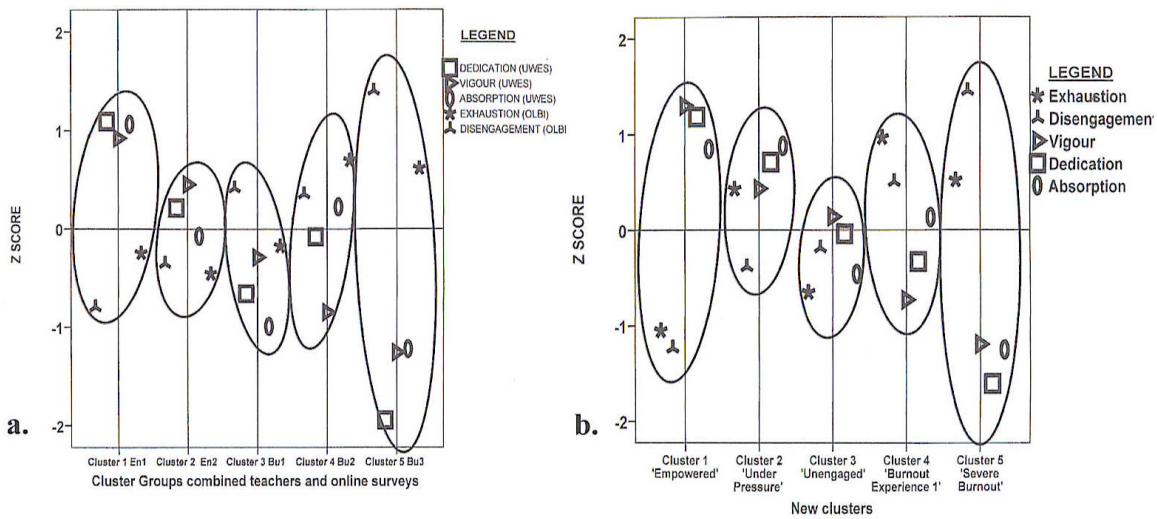


Figure 6.2. Original cluster profiles (a) compared visually to the new profiles (b) developed after recalibration of UWES and OLBI variables.

In the original clusters (Chapter 4) nearly 50% of respondents were in either cluster 1 En1 or cluster 2 En2, whereas in the current analysis 35.6% of respondents were distributed within The Empowered Group (NC1) and The Under Pressure Group (NC2). Eighteen percent of respondents belonged to the original cluster three; whereas 30.7% of respondents belonged to The Unengaged Group (NC3) (83

respondents have in fact moved from the original cluster 2 En2 to The Unengaged Group). The resulting make up of clusters four and five are similar in the original and in the new cluster analysis, with the original clusters four and five comprised of 30.6% of respondents compared to 33.7% belonging to the two burnout groups in the new cluster analysis; Burnout Experience 1 Group (NC4) and The Severe Burnout Group (NC5). There are still some apparent anomalies within the clusters; The Under Pressure Group respondents reported agreement with exhaustion (OLBI) and also with vigour (UWES). Likewise, respondents in The Unengaged Group indicated they were neither disengaged (OLBI) or dedicated (UWES).

Validation of the clusters by means of the AWS and CJMT

According to Clatworthy et al. (2005) evidence derived from testing the performance of the groups on variables not included in the K-means cluster analysis process can be used for the purpose of validation of the clusters. Therefore, further testing of the new clusters, in relation to the AWS variables and the CJMT variable, was performed using one way analysis of variance (ANOVA). All tests were significant: workload $F(4, 510) = 39.70$, $p<.001$, control $F(4, 510) = 28.54$, $p<.001$, reward $F(4, 510) = 44.32$ $p<.001$, community $F(4, 510) = 26.79$, $p<.001$, fairness $F(4, 510) = 31.14$, $p<.001$, values $F(4, 510) = 48.23$, $p<.001$ and the CJMT $F(4, 510) = 28.5$, $p<.001$. Significant Levene's tests of homogeneity of variances for all variables except fairness signaled the possibility that ANOVA assumption of equal variances had been violated. Nevertheless, in this case, Games-Howell post hoc tests, which do not assume equal variances, supported the significance of the findings. Effect sizes were large, with eta squared values as follows: workload = .24, control =.14, reward =.26, community =.17, fairness =.20, values =.27 and the CJMT =.19. Figure 6.3

provides a visual representation of the distribution of the AWS variables and the CJMT variable within the new clusters.

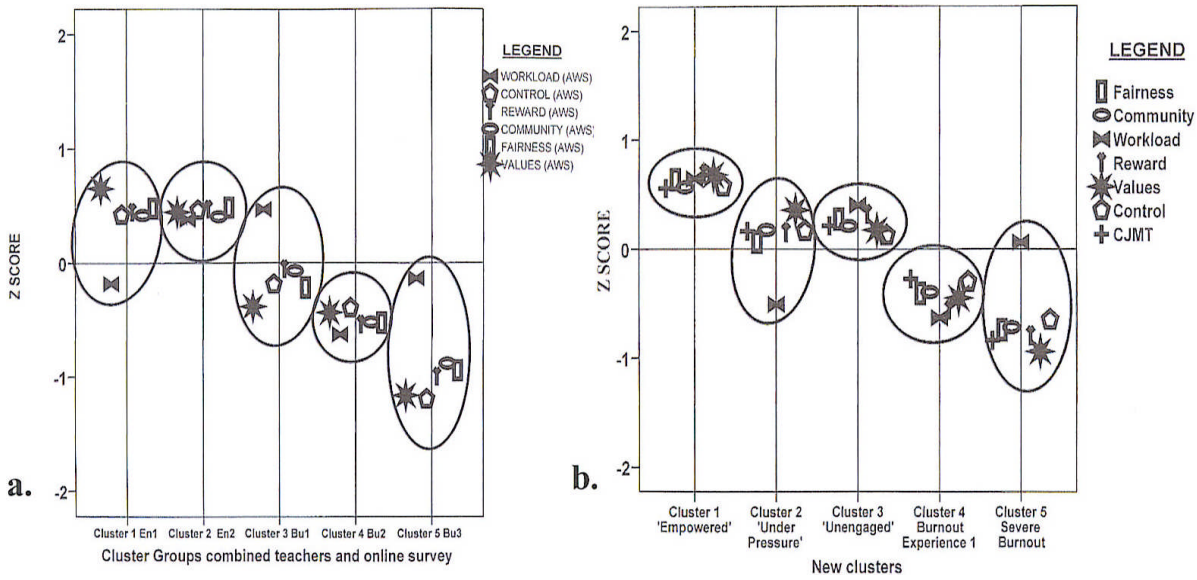


Figure 6.3. Distribution of the AWS variables within the original (a) and new (b) clusters (N.B. the CJMT variable also appears in the new cluster diagram).

Table 6.9 provides means and standard deviations of the AWS variables with the new clusters.

Table 6.9. Means and SD of AWS and CJMT variables in Cluster Groups (z scores)

	The Empowered Group (n = 73)		The Under Pressure Group (n= 110)		The Unengaged Group (n=158)		Burnout Experience 1 Group (n= 95)		The Severe Burnout Group (n=79)	
	M	SD	M	SD	M	SD	M	SD	M	SD
Control	.57	.74	.17	.95	.13	.70	-.30	1.07	-.65	1.24
Workload	.64	.94	-.51	.78	.40	.88	-.63	.80	.06	1.01
Reward	.68	.81	.15	.94	.32	.79	-.56	.91	-.80	.90
Community	.56	.61	.17	.95	.21	.74	-.39	1.10	-.72	1.13
Fairness	.63	.93	.06	.98	.28	.88	-.41	.89	-.74	.81
Values	.68	.68	.36	.87	.18	.79	-.45	1.04	-.94	.85
CJMT	.56	.90	.16	1.02	.21	.83	-.27	.98	-.84	.78

6.2.1 Points of Comparison between the two K-means Cluster Analyses in the Current Research Project

It is noted that the new cluster distribution provides further definition of The Empowered Group (NC1). The original cluster one En1 demonstrated a pattern of distribution similar to that of The Under Pressure Group (NC2), however in the latter case, agreement with the AWS variables is not as emphatic as in the original cluster one En 1, with these variables demonstrating only slight matches (AWS variables are said to be a 'mismatch' when below the midpoint and a 'match' when above the midpoint). Whereas The Empowered Group (NC1) indicates more emphatic mismatches on the OLBI variables of exhaustion and disengagement than did the original cluster 1 En1.

Another point of contrast is the comparison between the original cluster three Bu1 and The Unengaged Group (NC3). The Unengaged Group has similar matching responses to those of the original cluster two En 2 group in regard to the AWS variables, whereas the original cluster three Bu1 group indicated mismatches with these variables. This would indicate although the new group has been labeled The Unengaged Group because of their reduced support for the engagement variables of dedication, absorption and vigour (Schaufeli & Bakker, 2003); it is nevertheless, a much more positive group than the original cluster three Bu1. This can be observed in Figure 6.2.

The new clusters, derived from the recalibrated OLBI and UWES variables and a sub-set (n=515) of the original data set, therefore provided groups by which dynamic processes in regard to workplace burnout and engagement in relation to the AWS variables could be observed. This is the focus of Chapter 7 'Path Analyses".

Chapter 7

Path Analyses and Hours of work

The current chapter contributes a logical progression from Chapter 6 and provides details of a series of path analyses that were conducted using the new clusters. These involved testing a model extrapolated from Leiter and Maslach (2004). In addition the chapter includes information on respondents' reported hours of work and concludes with a brief discussion of the findings.

Path analysis was chosen in preference to SEM in the current research for purposes of parsimony. It was known that the process would produce at least six models (one for each group of people identified in the K-means cluster analysis and one for the combined group) and several groups to be tested had < 100 respondents. Therefore some analyses would be problematic in terms of possible sampling error (Kline, 1998), thus contributing to possible reduction in statistical power. It is noted that the purpose of the current analyses is to provide points of comparison between the groups; therefore each analysis was conducted in order provide a contribution to a larger picture. It was anticipated that the analyses would provide insights as to workplace dynamics that were specific to respondents' experience of burnout or engagement. Therefore an important aim of the analyses conducted in the current chapter was to establish if there were similar pathways between the models that could provide more elucidation as to inter-relationships between AWS variables.

The path analyses were initially conducted to test Leiter and Maslach's (2004) model. This model indicated that the AWS variables would form a pattern of mediation with control as the predictor variable, and reward, community and fairness mediating its relationship to values. Values would then relate directly to the MBI variables of emotional exhaustion, cynicism and inefficacy. An adaptation of this model to suit the projected relationship of the AWS variables to the OLBI and UWES variables used in the current study was presented in Figure 6.1. The current survey did not incorporate a measure for change as did that of Leiter and Maslach; consequently, the tested models included the OLBI and the UWES variables as outcome variables. Variables of the UWES that had apparent direct relationships with OLBI variables, for example, vigour (UWES) and exhaustion (OLBI) were connected in the initial model. In order to expedite comparisons between models, each of the path analyses in the current research retained non-significant pathways instead of deleting them. Although the non-significant pathways were not included in Figures 7.1 to 7.7, they are recorded in Appendix D Tables D.1 to D.7. In addition, Table 7.4 provides comparisons between the clusters in regard to pathway significance; this demonstrates that respondents in the different clusters did report quite different experiences in regard to their workplace experience of the areas of worklife, which in turn are, in most cases, predictive of their experience of burnout or engagement.

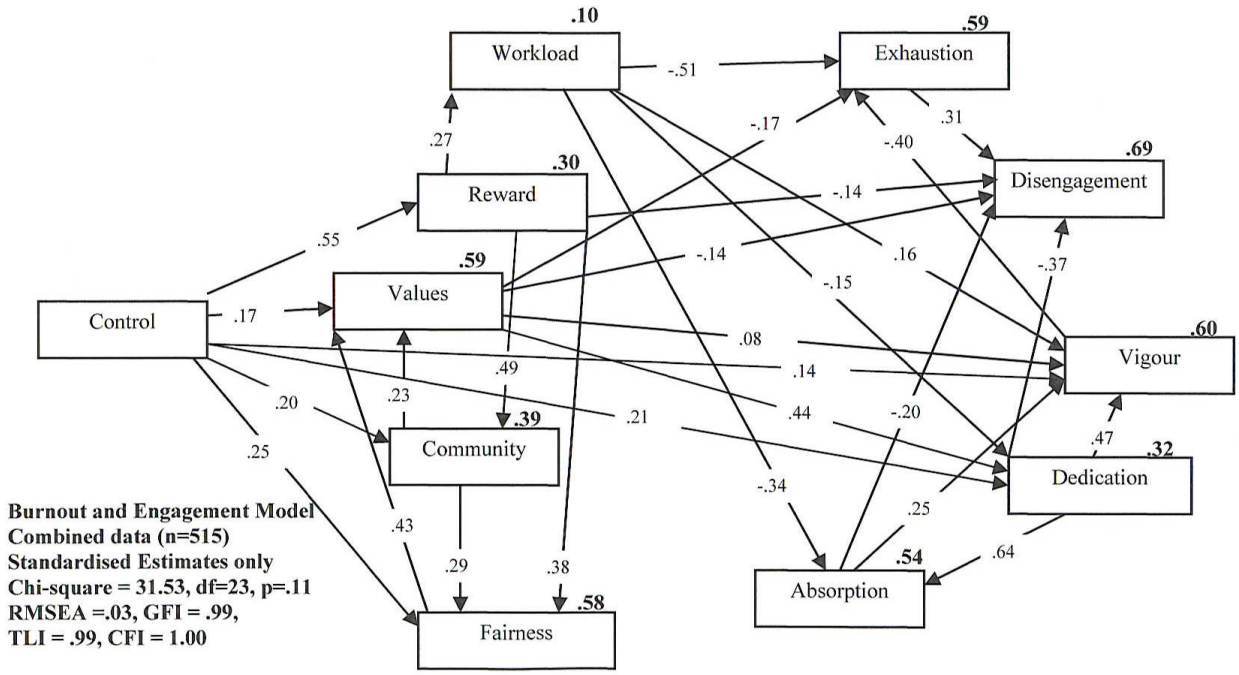
7.1 The combined data set (n=515)

Testing of the model (Figure 6.1) with the combined data set (n=515) using Amos 7 did not fit combined data responses χ^2 (35) = 675.05, p <.001, RMSEA=.19, GFI=.80, TLI=.71, CFI=.81. Investigation of model statistics revealed some

pathways that were not significant and modification indices suggested that others be added. Appendix D Table D.1 provides details of the re-specified model. This re-specified model, represented in Figure 7.1, achieved good fit with the data χ^2 (23) = 31.53, *p* =.11 RMSEA=.03, GFI=.99, TLI=.99, CFI=1.00. It is noted that unlike the hypothesised model, reward had an indirect relationship to values, being moderated through community and fairness. Values had direct relationships with the OLBI variables of exhaustion, disengagement, and the UWES variables of vigour and dedication. However, control had direct relationships not only with the AWS variables of reward, community and fairness as predicted by the model extrapolated from Leiter and Maslach (2004), but also with values and the UWES variables of vigour and dedication. As predicted, workload's relationship to exhaustion was a direct one. Workload also had a strong direct relationship with absorption, and significant direct relationships with dedication and vigour. Four pathways in the original model were not significant, these were: absorption to exhaustion, control to workload, reward to values and values to absorption. It is noted that the combined model explained considerable variance in exhaustion (R^2 = .59) and disengagement (R^2 = .69) from the OLBI, and vigour (R^2 = .60) and absorption (R^2 = .54) from the UWES. However the model explained only 32% of the variance in dedication.

The re-specified model depicted in Figure 7.1 (and in Appendix D, Table D.1) is very 'busy', with many direct relationships between the variables. For this reason, unlike other models in this chapter, only standardised values are shown. An additional caveat in regard to this model concerns the fact that it is largely derived on the basis of directions from modification indices rather than the findings of previous research. This may have the potential to render it problematic in terms of the

possibility that significant relationships will be the product of chance features of the data. It was therefore decided that the model extrapolated from Leiter and Maslach (2004) would have to be examined within the context of each of the groups identified in the cluster analysis in order to establish a clearer picture of the relationships between the variables.



Note 1. In regard to the AWS variables of workload, control, community, reward, fairness and values, low scores indicate mismatch and high scores indicate match.
Note 2. R^2 values are in bold at the top right corner of each variable.

Figure 7.1. Path Analysis of combined data (n=515) using areas of worklife variables in relation to burnout (exhaustion and disengagement) and engagement (dedication, vigour and absorption).

7.2 Groups identified in the New Cluster Analysis

The models in these path analyses were re-specified by the tracking of regression weights, scrutinising the standardised residual co-variances for estimates > 2 and

checking with the modification indices for projected fit improvements. In view of the findings of the combined path analysis where the model was re-specified using many direct pathways, it was anticipated the models will be different for the groups as they reported quite different responses on the UWES and OLBI variables. Table 7.1 reports general demographic details in regard to the groups identified in the second cluster analysis. It is acknowledged that three groups represented small sample sizes (n < 100) as defined by Kline (1998) and Cunningham (2007). Therefore it is cautioned that these analyses may suffer from reduced power and a smaller range for the constructs. Reduced power may therefore affect the size of the coefficients and smaller range may well reduce the likelihood of significant relationships being identified.

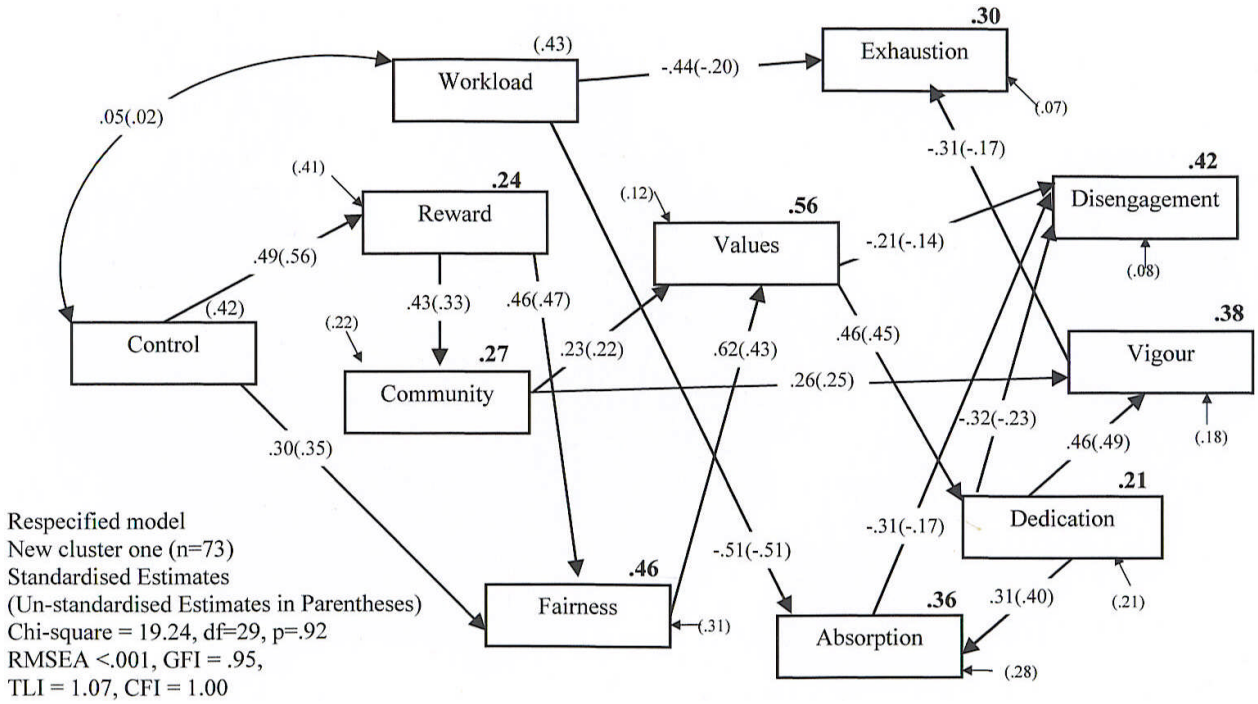
Table 7.1. Demographic information about groups identified in the second cluster analysis

New Clusters	*N*	*%*	*Males*	*Females*	*Teachers*	*Online*
The Empowered Group (NC1)	73	14.2	23	50	44	29
The Under Pressure Group (NC2)	110	21.4	23	87	70	40
The Unengaged Group (NC3)	158	30.7	65	93	73	85
The Burnout experience 1 Group (NC4)	95	18.4	33	62	52	43
The Severe Burnout Group (NC5)	79	15.3	37	42	16	63
Total	515	100.0	181	334	255	260

7.2.1 The Empowered Group (NC1, *n* = 73)

Like the original cluster one en1, The Empowered Group demonstrated patterns of response consistent with worker engagement. As with the combined group, the original model (see Figure 6.1) did not fit the data χ^2 (35) = 90.90, p <.01, RMSEA=.15, GFI=.82, TLI=.65, CFI=.78. It was necessary to add five new pathways, and remove the non significant path from control to workload. Accordingly, two predictor variables were indicated in the re-specified model for

The Empowered Group (control and workload). The re-specified model achieved good fit with data from The Empowered Group χ^2 (29) = 19.24, *p* =.92, RMSEA<.001, GFI=.95, TLI=1.07, CFI=1.00. Figure 7.2 provides a visual representation of the re-specified model as applied to The Empowered Group.



Note 1. In regard to the AWS variables of workload, control, community, reward, fairness and values, low scores indicate mismatch and high scores indicate match.
Note 2. R^2 values are in bold at the top right corner of each variable.

Figure 7.2. Path Analysis of The Empowered Group (NC1) group using AWS variables in relation to burnout (exhaustion and disengagement), and engagement (dedication, vigour and absorption).

In regard to the UWES variables, the model explains 36% of the variance in absorption (contributed by workload and dedication), 21% of the variance in dedication (contributed by the mediated AWS variables through values) and 38% of

the variance in vigour (contributed to by the mediation pattern of control reward and community). The model also explains 42% of the variance in disengagement (contributed through negative associations with absorption, dedication and values) and 30% of the variance in exhaustion (main contributors are workload and vigour).

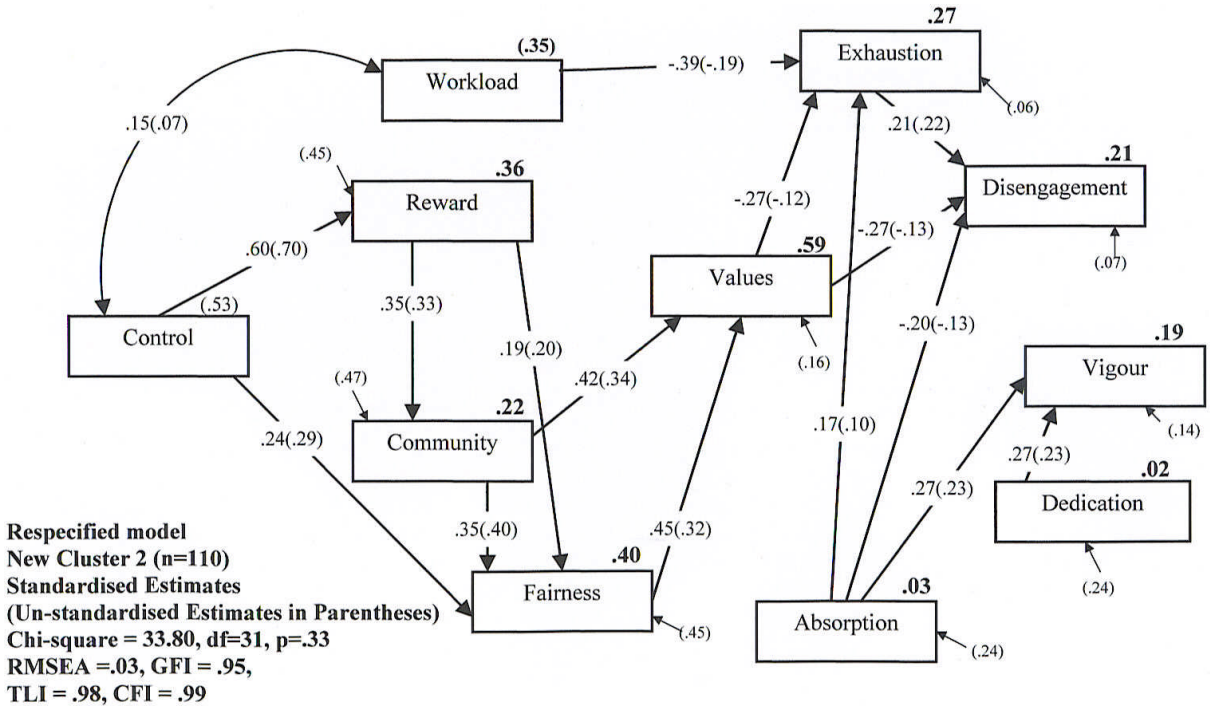
As in the combined data model there is no direct path from reward to values, and reward is mediated through community and fairness. Values loads directly onto disengagement and dedication, whereas community has a direct relationship with vigour. As a predictor variable, control has relationships with reward and fairness only. Workload, the other predictor variable in this model, has direct relationships with absorption and exhaustion.

A further analysis using this model was run with the CJMT variable replacing the AWS fairness variable. This adjusted model also fitted the data well χ^2 (29) = 33.20, p =.27, RMSEA=.05, GFI=.93, TLI=.97, CFI=.98.

7.2.2 The Under Pressure Group (NC2, *n* = 110)

Respondents in The Under Pressure Group reported identical levels (z =.43) of exhaustion (OLBI) and vigour (UWES) (see Figure 6.2 and Table 6.6). As happened in the analysis for The Empowered Group, the initial model did not fit the data for The Under Pressure Group χ^2 (35) = 74.95, p <.01, RMSEA=.10, GFI=.89, TLI=.79, CFI=.87. The addition of four new pathways (three of which were also introduced in the model describing The Empowered Group) improved fit with The Under Pressure Group data χ^2 (31) = 33.80, p =.33, RMSEA=.03, GFI=.95, TLI=.98, CFI=.99. As had happened with The Empowered Group the non-significant pathway from control to workload was removed and the re-specified model indicated that both control and workload were predictor variables. Significant pathways for the re-specified model

for The Under Pressure Group are tracked in Figure 7.3. More detailed statistical information on this model is provided in Appendix D Table D.3.



Note 1. In regard to the AWS variables of workload, control, community, reward, fairness and values, low scores indicate mismatch and high scores indicate match.
Note 2. R^2 values are in bold at the top right corner of each variable.

Figure 7.3. Path Analysis for The Under Pressure Group (NC2) using AWS variables in relation to burnout (exhaustion and disengagement) and engagement (dedication, vigour and absorption).

The re-specified model for The Under Pressure Group does explain some of the variance with the OLBI variables of exhaustion (27%) and disengagement (21%), and 19% of the variance in vigour, however, it explains only 2% of the variance in dedication, and 3% of the variance in absorption. In regard to the AWS variables 59% of the variance in values is explained by the same complex dynamic interactions of control, reward, community and fairness already seen in the previous models. As in the two previous models, reward did not have a significant relationship with

values, but was mediated through community and fairness, and there was no significant relationship from control as a predictor variable to community. Interestingly, the model for The Under Pressure Group demonstrated direct relationships with only the OLBI variables of exhaustion and disengagement. Unlike the model for The Empowered Group, a relationship between workload and absorption was not indicated, however absorption had direct relationships with the OLBI variables of exhaustion (interestingly this relationship was a positive one) and disengagement as well as being the only variable to link directly to vigour.

A further analysis was run with this re-specified model when the CJMT variable was substituted for the AWS fairness variable. This model also achieved good fit with the data for The Under Pressure Group χ^2 (31) = 39.69, p =.14, RMSEA=.05, GFI=.94, TLI=.95, CFI=.97.

7.2.3 The Unengaged Group (NC3, *n* = 158)

The Unengaged Group (NC3) demonstrated a profile where there was no clear differentiation between UWES and OLBI variables. Investigations were initiated into the fact that responses to AWS variables in The Unengaged Group did not necessarily follow the projected direction. The defining variables were clear: In regard to the OLBI variables, respondents did not indicate that they were suffering burnout (disengagement z = -.19 and exhaustion z = -.64). With respect to the UWES variables, respondents in the unengaged group did not indicated that they were absorbed in their work (z = -.64), provided mild agreement that they were energised by their work (vigour z = .13) and were ambivalent that their work provided meaning and was inspiring (dedication z = -.04).

Further examination of responses from interviewees representing this group (see Chapter 8) provided a cue to the fact that responses to the AWS variables and CJMT from these participants did not follow a clear pattern as apparent in all other groups identified in the cluster analysis. It was therefore suspected that The Unengaged Group might well be composed of two subgroups, those who indicated matches with the AWS variables and those who indicated mismatches with these variables.

Further K-means sub-classification in The Unengaged Group (NC3)

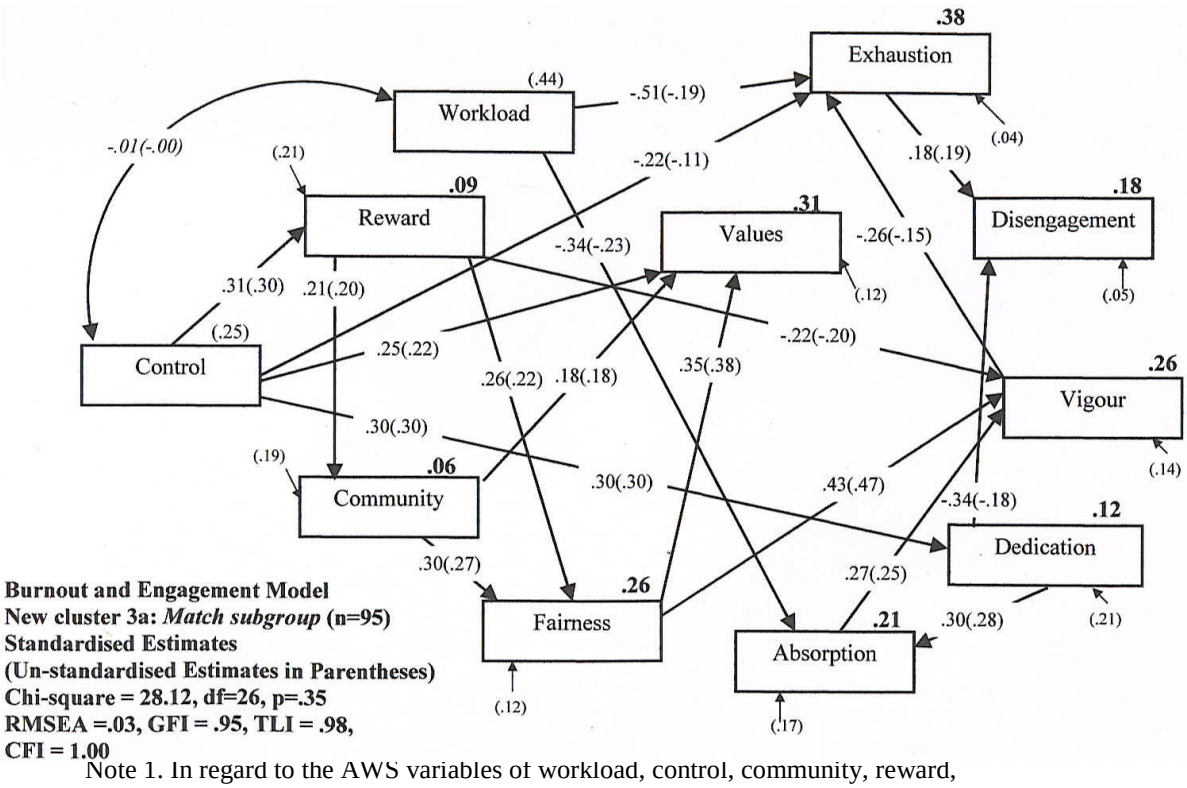
A further K-means cluster analysis, using all respondents from the group (n = 158) confirmed that there were two sub-groups within The Unengaged Group. Those who reported matches on the AWS variables and agreement with the CJMT variable (n = 95) and those who reported mismatches or disagreement with these variables (n = 63). The cluster solution was achieved in 6 iterations and Euclidian distance between the two cluster centres was 2.57. Table 7.2 provides standardised scores for the AWS variables and the CJMT variable at the cluster centres.

Table 7.2. z scores at cluster centres for the two subgroups within The Unengaged Group

	Sub groups of the unengaged group	
	Match subgroup z score	Mismatch subgroup z score
Fairness	.84	-.57
Community	.55	-.29
Workload	.62	.08
Reward	.71	-.28
Values	.57	-.42
Control	.30	-.13
CJMT	.70	-.52

The Unengaged Group (Match subgroup, n= 95)

Respondents belonging to The Unengaged Group (NC3a) match subgroup displayed quite robust matches on the areas of worklife variables and agreement on the CJMT variable (see Table 7.2). The model extrapolated from Leiter and Maslach (2004) and illustrated in Figure 6.1, did not fit the data for the Match subgroup χ^2 (35) = 102.08, p<.001, RMSEA=.14, GFI = .84, TLI=.41, CFI=.63. Initial re-specification involved the insertion of pathways that had been used in the models for The Empowered Group and The Under Pressure Group. These were: from reward to community, reward to fairness and from community to fairness. These three paths did improve model fit with the data χ^2 (32) = 77.12, p<.001, RMSEA=.12, GFI = .87, TLI=.57, CFI=.75, but the model required further re-specification. A final model achieved fit with the data with the addition of another five pathways χ^2 (26) = 28.12, p =.35, RMSEA=.03, GFI = .95, TLI=.98, CFI=1.00. A representation of this model is provided in Figure 7.4. Information in relation to all pathways, including those that did not demonstrate significance, is provided in Appendix D Table D.4.



Note 1. In regard to the AWS variables of workload, control, community, reward, fairness and values, low scores indicate mismatch and high scores indicate match.
Note 2. R^2 values are in bold at the top right corner of each variable.

Figure 7.4. Path Analysis of The Unengaged (NC3a) Match subgroup, using areas of worklife variables in relation to burnout (exhaustion and disengagement) and engagement (dedication, vigour and absorption).

Re-specification of the model for The Unengaged Match subgroup indicated two predictor variables that were unrelated in this data set, control and workload (r = -.01). Although the pattern of relationships between control, reward, community, fairness and values followed the pattern of previous groups; additional pathways indicated some direct relationships between the AWS variables and those of the OLBI and UWES variables. Control made a direct contribution to exhaustion and to dedication as well as values. Reward made a direct contribution to vigour. Workload's contributions to exhaustion and absorption were also direct. The model

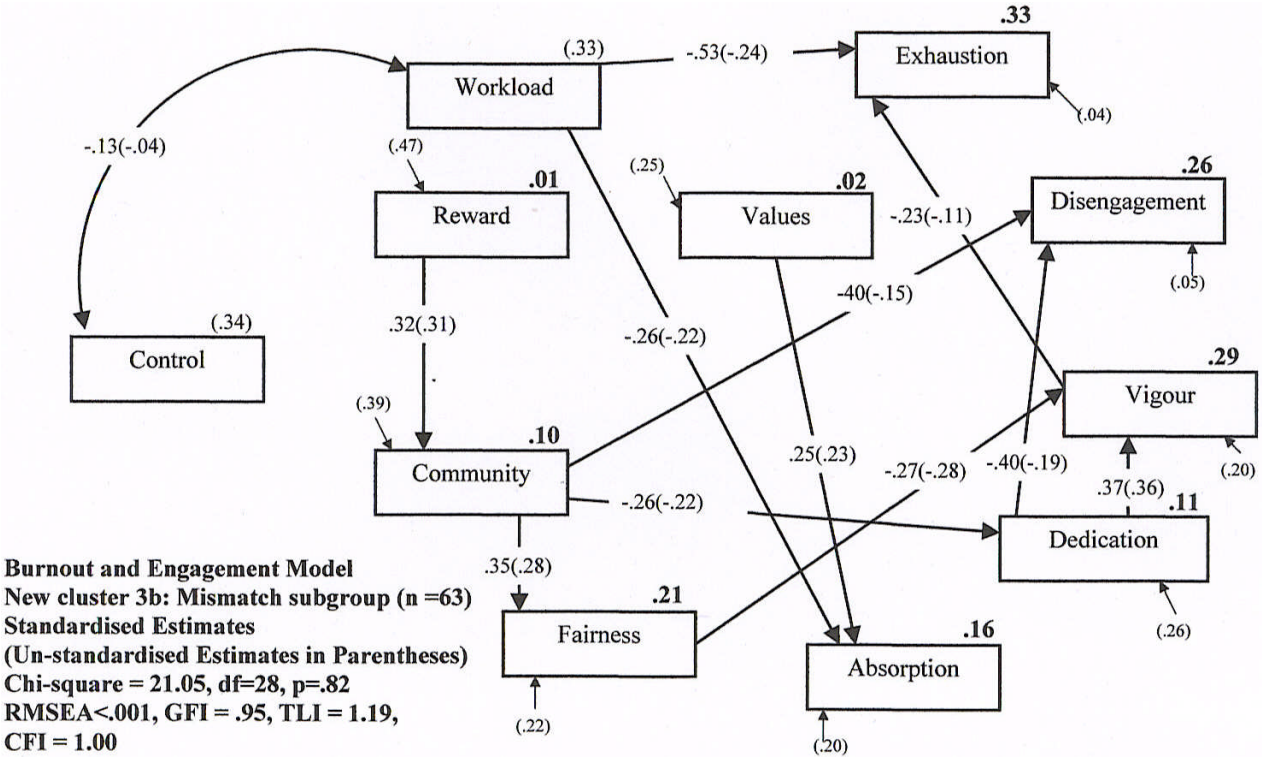
explains 21% of the variance in absorption, 12 % of the variance in dedication, 26% of the variance in vigour, 18 % of the variance in disengagement and 38% of the variance in exhaustion. As with models for The Empowered Group and The Under Pressure Group, there is no direct relationship between control and community. Unlike the previous models, there is also no direct relationship between control and fairness, but there is a direct relationship between fairness and vigour.

Finally, as with the two previous clusters, the model was re-run with the CJMT variable substituting for the AWS variable of fairness. This model also achieved fit with the data χ^2 (26) = 34.47, *p* =.12, RMSEA=.06, GFI = .94, TLI=.88, CFI=.95. However, modification indices suggested that an even better fit could be obtained with an additional pathway between CJMT and absorption χ^2 (25) = 27.66, *p* =.32, RMSEA=.03, GFI = .95, TLI=.96, CFI=.98. Regression weights for this additional pathway were β = -.26, with the un-standardised beta = - .23.

The Unengaged Group (Mismatch subgroup, n= 63)

Unlike those respondents belonging to The Unengaged Match subgroup, respondents belonging to the The Unengaged Mismatch subgroup displayed mismatches on the areas of worklife variables and disagreement with the CJMT variable (see Table 6.6). According to Leiter and Maslach (1999, 2004, 2006) mismatches on one or more AWS variables provide a signal for the development of burnout in the individual; however that does not appear to be the case with The Unengaged Mismatch subgroup. The model extrapolated from Leiter and Maslach (2004) and illustrated in Figure 6.1, did not fit the data for The Unengaged Mismatch subgroup χ^2 (35) = 65.95, *p* =.001, RMSEA=.12, GFI = .83, TLI=.31, CFI=.56. Initial re-specification involved the insertion of pathways that had been used in the models for The

Empowered Ones and The Under Pressure Group, these were: from reward to community, community to fairness, and from reward to fairness. These first two of these three pathway did improve model fit with the data χ^2 (32) = 47.00, p = .04, RMSEA=.09, GFI = .89, TLI=.64, CFI=.79, the third pathway that had enhanced fit in previous models did not do so with The Unengaged Mismatch subgroup (reward to fairness, β= .14, unstandardised beta = .11). The model still required re-specification to achieve fit with the data. A final model achieved fit with the data with the addition of another four pathways χ^2 (28) = 21.05, p =.82, RMSEA<.001, GFI = .95, TLI=1.19, CFI=1.00. A representation of this model is provided in Figure 7.5. Information in relation to all pathways, including those that did not demonstrate significance is provided in Appendix D Table D.5.



Note 1. In regard to the AWS variables of workload, control, community, reward, fairness and values, low scores indicate mismatch and high scores indicate match.
Note 2. R^2 values are in bold at the top right corner of each variable.

Figure 7.5. Path Analysis of The Unengaged Mismatch subgroup (NC3b), using areas of worklife variables in relation to burnout (exhaustion and disengagement) and engagement (dedication, vigour and absorption).

Examination of Figure 7.5 and the corresponding table (Appendix D, Table D.5) reveal pathways that demonstrated significance for previous models were not significant for the Mismatch subgroup. In addition the interaction of the control, reward, community, fairness and values variables, that characterised previous models, did not appear to be a feature of this subgroup's experience. The reader is reminded that these respondents reported mismatches on all AWS variables and yet did not report burnout. The model for the Mismatch subgroup is characterised by direct relationships between separate AWS variables and OLBI or UWES variables.

One aspect of Figure 7.5 is particularly puzzling; community has a negative relationship with dedication suggesting that the respondents' experience of mismatch in community contributes to a greater sense of meaning in their work. The puzzle continues with a negative relationship between fairness and vigour indicating that mismatch on fairness contributes to vigour. This provides a contrast to the Match subgroup which also reported a link between fairness and vigour, however in that case the linkage was a positive one. In addition there is a direct relationship between values and absorption in the Mismatch subgroup.

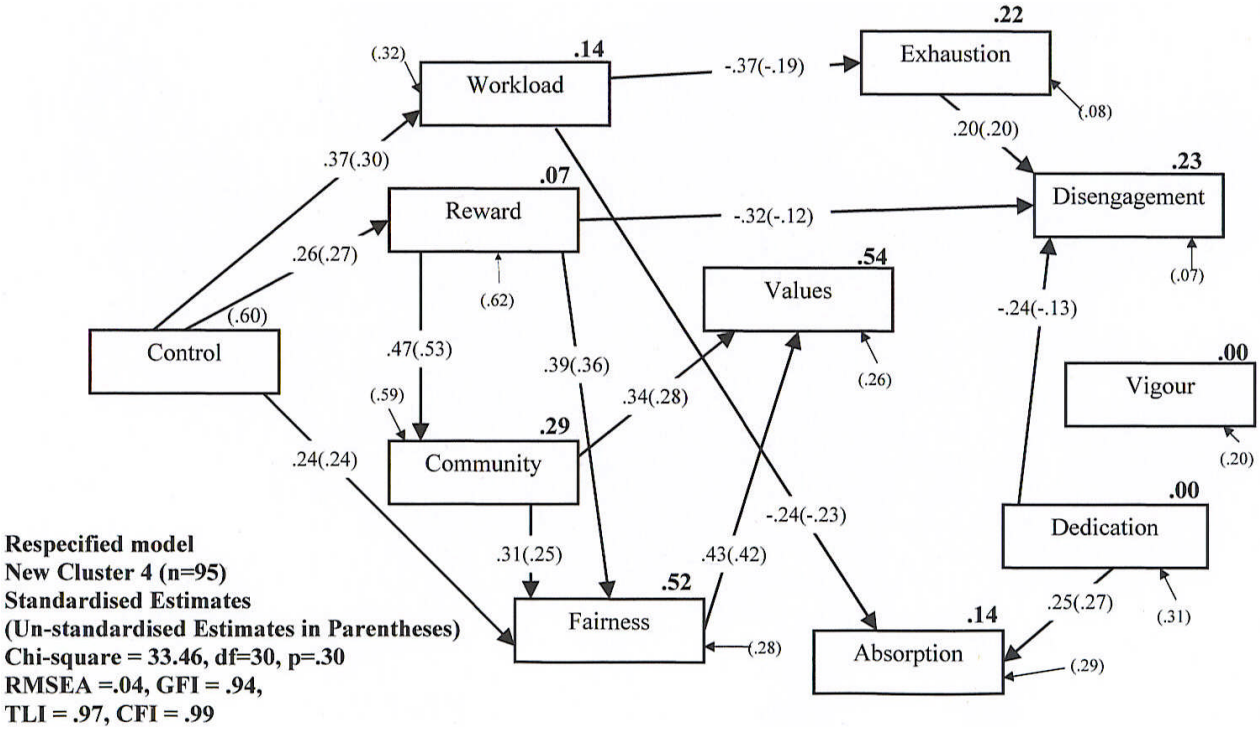
As with previous models, the re-specified model was run with the CJMT variable substituting for the AWS fairness variable. This also achieved fit with the model χ^2 (28) = 21.42, p = .81, RMSEA<.001, GFI = .95, TLI=1.21, CFI=1.00.

7.2.4 The Burnout Experience 1 Group (NC4, *n* = 95).

The Burnout Experience 1 Group demonstrated a clear burnout profile with high exhaustion and moderate disengagement. The lowest score for this group was the UWES variable of vigour, respondents agreed (only slightly) that they were absorbed in their work and disagreed that they were dedicated (Figure 6.2 and Table 6.7). The first run of the model extrapolated from Leiter and Maslach's (2004) model was not a good fit with the data χ^2 (35) = 120.12, p<.001, RMSEA=.16, GFI=.80, TLI=.44, CFI=.64. The first stage of re-specification of the model involved the addition of pathways that improved fit in previous models, these were; reward-fairness, reward to community and community to fairness. This improved model fit χ^2 (32) = 47.48, p=.04, RMSEA=.07, GFI=.92, TLI=.89, CFI=.93, but more modification was required. The final pathways to be added were workload to absorption, and reward to disengagement. The re-specified model fitted the data well χ^2 (30) = 33.46, p=.30,

RMSEA=.04, GFI=.94, TLI=.97, CFI=1.00. Details of regression weights for the re-specified model for The Burnout Experience 1 Group can be found in Appendix D, Table D.7. Figure 7.6 traces the significant pathways for Burnout Experience 1.

As with the previous models, the re-specified model was run with the CJMT variable substituting for the AWS fairness variable. This also achieved fit with the model χ^2 (30) = 34.83, p = .25, RMSEA=.04, GFI=.94, TLI=.96, CFI=.98.



Note 1. In regard to the AWS variables of workload, control, community, reward, fairness and values, low scores indicate mismatch and high scores indicate match.
Note 2. R^2 values are in bold at the top right corner of each variable.

Figure 7.6. Path Analysis, The Burnout Experience 1 Group (NC4), using AWS variables in relation to burnout (exhaustion and disengagement) and engagement (dedication, vigour and absorption).

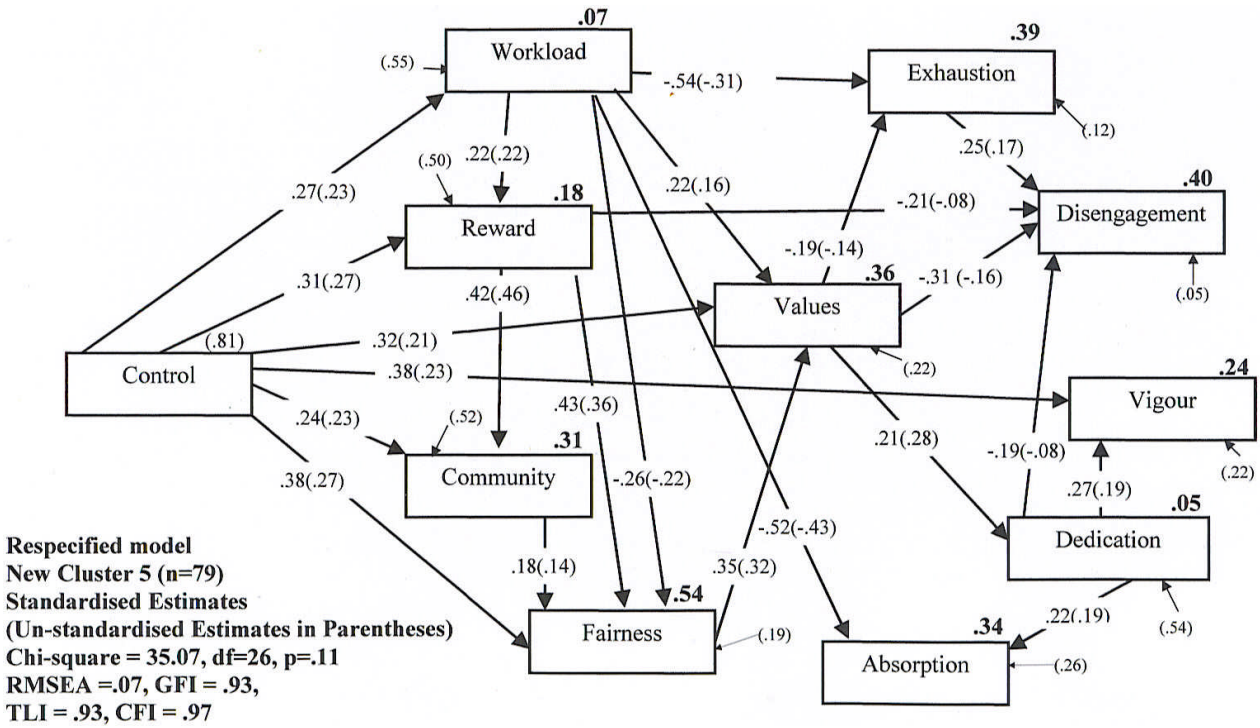
The model for The Burnout Experience 1 Group (NC4) depicted in Figure 7.6 explains little of the variance in the UWES variables. The OLBI variables of exhaustion (22%) and disengagement (23%) seem to be explained by workload (in the case of exhaustion) and by reward and dedication in the case of disengagement,

indicating that lack of recognition and lack of meaningful work contribute to disengagement. On the other hand 54% of the variance in values is explained by the dynamic interaction of control, reward and community. Unlike models developed for previous clusters, there are strong and direct relationships between control and workload and between reward and disengagement for The Burnout Experience 1 Group. The mediated pattern of the AWS variables through values does not explain any of the OLBI or UWES variables and dedication and vigour both remain unexplained within the model. As with all the previous models (with the exception of the combined data model in Figure 7.1) there is no direct relationship between control and community.

7.2.5 The Severe Burnout Group (NC5, *n* =79).

As suggested by the name, The Severe Burnout Group indicated a much more acute burnout experience than any of the other groups (see Figure 6.2 and Table 6.6). In regard to the first run of the model extrapolated from Leiter and Maslach (2004), there was clear misfit with the data χ^2 (35) = 143.77, p <.001, RMSEA=.20, GFI=.77, TLI=.36, CFI=.59. Addition of the same pathways that had improved fit in previous models: reward to community, reward to fairness, community to fairness improved the fit slightly χ^2 (32) = 103.61, p <.001, RMSEA=.17, GFI=.83, TLI=.54, CFI=.73, however further re-specification was indicated. It was necessary to add seven more pathways (outlined in Appendix D, Table D.7) before fit with the model was achieved χ^2 (26) = 30.67, p =.24, RMSEA=.05, GFI=.94, TLI=.97, CFI=.98. Figure 7.7 demonstrates significant pathways for The Severe Burnout Group.

As with previous models, a re-running of the re-specified model with CJMT replacing the AWS variable of fairness also achieved fit with the data χ^2 (26) = 30.02, *p* =.27, RMSEA=.05, GFI=.94, TLI=.97, CFI=.98.



Note 1. In regard to the AWS variables of workload, control, community, reward, fairness and values, low scores indicate mismatch and high scores indicate match.
Note 2. R^2 values are in bold at the top right corner of each variable.

Figure 7.7. Path Analysis for The Severe Burnout Group (NC5) using AWS variables in relation to burnout (exhaustion and disengagement), and engagement (dedication, vigour and absorption).

The model for The Severe Burnout Group (NC5) (depicted in Figure 7.7) demonstrated some explanations for the OLBI variables of exhaustion (39% of the variance, with pathways from workload and values) and disengagement (40% of the variance, with pathways from exhaustion, values, reward and dedication). Direct pathways for The Severe Burnout Group that did not appear in any other model were

workload to values, control to vigour, and workload to fairness. In regard to absorption, in which 34% of variance was explained, pathways came from workload and dedication and a direct path from values to dedication only explained 5% of variance in that variable.

7.3 Comparison of path analyses in the new clusters

The capacity of the models to explain variances is outlined in Table 7.3. Much more variance was explained in the model for the whole group which incorporated a number of direct relationships in order to achieve model fit, thus suggesting that the dynamics involved are more complex than suggested by Leiter and Maslach (2004). Although it must be noted that the combination of the OLBI and the UWES introduces levels of complexity that would not have been present had the Maslach Burnout Inventory (MBI) been used to measure both burnout and engagement as there would have been three outcome variables (exhaustion, cynicism and inefficacy) instead of five (exhaustion, disengagement, vigour, dedication and absorption).

Table 7.3. Variable R^2 values in the various clusters and combined group models

		Squared Multiple Correlations (R^2 values) New Clusters						Combined Group
	Variables	(NC1) (n=73)	(NC2) (n=110)	(NC3a) (n=95)	(NC3b) (n=63)	(NC4) (n=95)	(NC5) (n=79)	(n= 515)
AWS Leiter & Maslach, 2006	Reward	.24	.36	.09	.01	.07	.18	.30
	Community	.27	.22	.06	.10	.29	.31	.39
	Fairness	.47	.40	.26	.21	.52	.54	.59
	Values	.56	.59	.31	.02	.54	.36	.59
	Workload					.14	.08	.10
UWES Schaufeli & Bakker, 2003	Dedication	.21	.02	.12	.11	.01	.05	.32
	Absorption	.36	.03	.21	.16	.14	.34	.54
	Vigour	.38	.19	.26	.29	.01	.24	.60
OLBI Demerouti et al. 2002	Exhaustion	.30	.28	.38	.33	.22	.39	.59
	Disengagement	.43	.21	.18	.26	.23	.40	.69

Table 7.4 provides a comparison of the pathways as outlined in the various models. The first part of the table refers to pathways projected in the model extrapolated from Leiter and Maslach's (2004) model. Pathways that were not significant in any of the models were: reward to values and values to absorption. The only model that found significance for pathways from absorption to exhaustion and from absorption to vigour was The Under Pressure Group (NC2). The pathway from values to exhaustion was only significant in the combined group model (at the < .05 level of significance). No model found significance for the pathway from reward to values. Instead all models (with the exception of The Under Pressure Group, NC2) demonstrated that reward's relationship with values was mediated through community and fairness. As predicted by Leiter and Maslach (2004) workload assumed a different character to the other AWS variables in the present series of path analyses.

Table 7.4. Comparisons of pathways and probabilities in the different clusters

Pathways		*New Clusters*						*Combined Group (n= 515)*
From	To	NC1 (n=73)	NC2 (n=110)	NC3a (n=95)	NC3b (n=63)	NC4 (n=95)	NC5 (n=79)	
Absorption	Exhaustion	ns	<.05	ns	ns	ns	ns	ns
Absorption	Vigour	ns	<.01	<.01	ns	ns	ns	<.001
Community	Values	<.05	<.001	<.05	ns	<.001	ns	<.001
Control	Community	ns	ns	ns	ns	ns	<.05	<.001
Control	Fairness	<.01	<.01	ns	ns	<.001	<.001	<.001
Control	Reward	<.001	<.001	<.01	ns	<.01	<.01	<.001
Control	Workload	ns	ns	ns	ns	<.001	<.05	ns
Dedication	Absorption	<.01	ns	<.01	ns	<.01	ns	<.001
Dedication	Disengagement	<.01	ns	<.001	<.001	<.01	<.05	<.001
Dedication	Vigour	<.001	<.01	ns	<.001	ns	<.05	<.001
Exhaustion	Disengagement	ns	<.05	<.05	ns	<.05	<.01	<.001
Fairness	Values	<.001	<.001	<.001	ns	<.001	<.01	<.001
Reward	Values	ns	ns	ns	ns	ns	ns	ns
Values	Absorption	ns	ns	ns	<.05	ns	ns	ns
Values	Dedication	<.001	ns	ns	ns	ns	<.05	<.001
Values	Disengagement	<.05	<.01	ns	ns	ns	<.01	<.001
Values	Exhaustion	ns	<.001	ns	ns	ns	<.05	<.001
Values	Vigour	ns	ns	ns	ns	ns	ns	<.05
Vigour	Exhaustion	<.01	ns	<.01	<.05	ns	ns	<.001
Workload	Exhaustion	<.001	<.001	<.001	<.001	<.001	<.001	<.001
Additional pathways								
Absorption	Disengagement	<.001	<.05	-	-	-	-	<.001
Community	Disengagement	-	-	-	<.001	-	-	-
Community	Fairness	-	<.001	<.01	<.01	<.001	<.05	<.001
Community	Vigour	<.05	-	-	-	-	-	-
Control	Dedication	-	-	<.01	-	-	-	<.001
Control	Exhaustion	-	-	<.05	-	-	-	-
Control	Values	-	-	<.01	-	-	<.01	<.001
Control	Vigour	-	-	-	-	-	<.01	<.001
Fairness	Vigour	-	-	<.001	<.05	-	-	-
Reward	Community	<.001	<.001	<.05	<.01	<.001	<.001	<.001
Reward	Disengagement	-	-	-	-	<.01	<.05	<.001
Reward	Fairness	<.001	ns	<.01	-	<.001	<.001	<.001
Reward	Workload	-	-	-	-	-	-	<.001
Workload	Absorption	<.001	-	<.001	<.05	<.05	<.001	<.001
Workload	Dedication	-	-	-	-	-	-	<.001
Workload	Fairness	-	-	-	-	-	<.01	-
Workload	Reward	-	-	-	-	-	<.05	-
Workload	Values	-	-	-	-	-	<.05	-
Workload	Vigour	-	-	-	-	-	-	<.001

Interactions of five AWS variables (control, reward, community fairness and values)

In order to confirm the mediation process observed with the AWS variables in the preceding path analyses a further series of regression equations were conducted with

the subset of the combined data set and SPSS 14 using the method outlined by Baron and Kenny (1986). This procedure tests linkages by regression equations in three stages: Stage one involves testing the predictor variable against the mediator variables and establishing that there is a relationship; Stage two involves testing the predictor variable against the dependent or outcome variable and establishing that there is a relationship between these two variables; the third stage involves running the whole model. If previous significance is reduced there is said to be partial mediation in the model. If a previously significant relationship is no longer significant, there is said to be complete mediation. Table 7.5 provides details of these analyses and confirms that the AWS variable *control* was partially mediated by three of the other AWS variables (*reward, community and fairness)* in relation to *values.* Likewise reward, community and fairness were also partially mediated by each other.

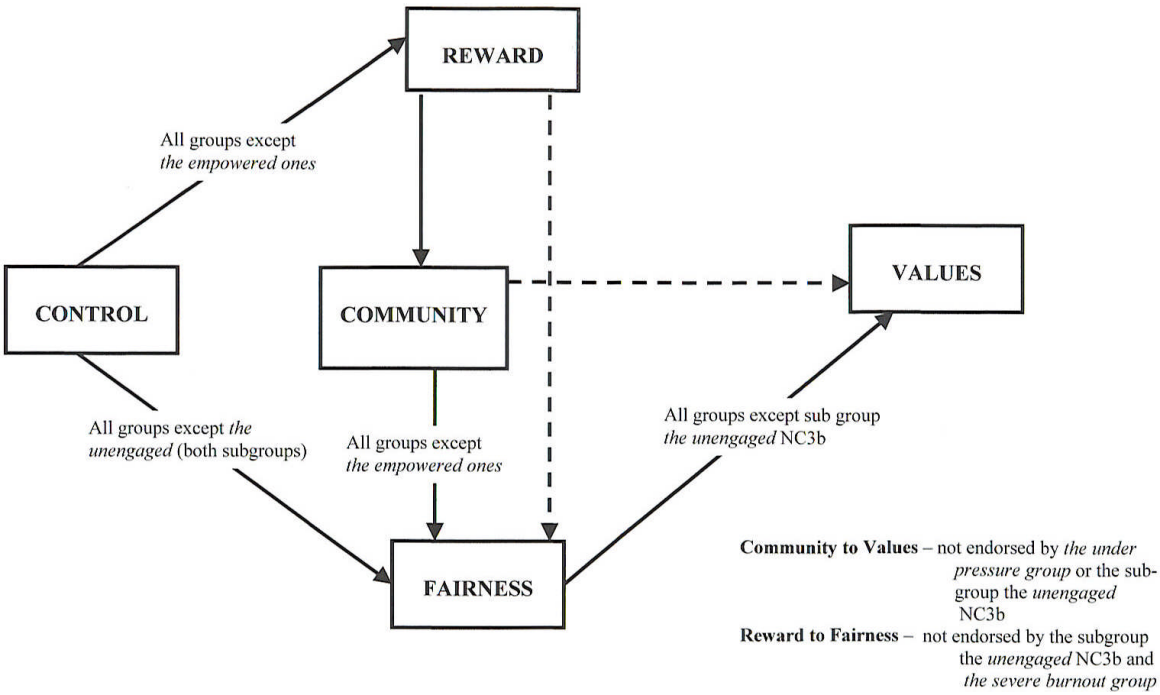
Table 7.5. Regression analyses of AWS predictor and mediator variables on values as per Baron and Kenny (1986)

	Conditions establishing Mediation	B	β	*t*	*p*	Adj R^2	*F*	*df*	*p*
Stage One (predictor is shown to affect the mediator variables)									
PV	Control – DV Reward	.48	.46	11.64	***	.21	135.44	1,513	***
PV	Control - DV Community	.37	.37	9.07	***	.14	82.22	1,513	***
PV	Control – DV Fairness	.50	.42	10.58	***	.18	111.96	1,513	***
Stage Two (individual predictors are shown to affect the dependent variable)									
PV	Control – DV Values	.49	.47	11.92	***	.22	142.11	1,513	***
PV	Reward – DV Values	.59	.60	16.99	***	.36	288.68	1,513	***
PV	Community – DV Values	.66	.62	18.09	***	.39	327.41	1,513	***
PV	Fairness –DV Values	.59	.66	20.10	***	.44	403.95	1,513	***
Stage Three (Model showing mediation process for the five AWS variables)									
PV	Control	.17	.16	4.61	***				
MV	Reward	.13	.13	2.96	**				
MV	Community	.31	.29	7.39	***				
MV	Fairness	.30	.34	7.99	***				
DV	Values					.55	159.25	4,510	***

Note 1. PV = predictor variable, MV = mediator variable, DV = Dependent Variable.
Note 2. ** $p < .01$, *** $p < .001$.

As predicted by Leiter and Maslach (1999) Table 7.5 demonstrates that the AWS variables have implications for each other in that they partially mediate each other as evidenced by their reduction in significance in stage three when regressed (in combination), in that all beta values and *t* tests are reduced in significance. The individual path analyses models (Figures 7.1 to 7.7) demonstrate how this combination of AWS variables then interact (or do not interact) with the OLBI (Demerouti et al., 2002) and the UWES (Schaufeli and Bakker, 2003) variables in response to respondents' differing experiences of burnout and engagement. Figure 7.8 demonstrates the relationship between these five AWS variables as revealed in

the path analyses. However it is cautioned that all of these constructs are strongly inter-related with high Pearsons' correlations (see Table 4.2): Given the small size of some of the samples it could well be that the occurrence or lack of pathways in any given cluster is an attribute of slight or subtle qualities of the data from each particular group in the analysis



Note. Dashed lines indicate that two groups did not endorse this link

Figure 7.8. Established patterns of relationships between AWS variables in Path Analyses

Workload – the other AWS variable

In addition to the pattern outlined in Figure 7.8 the path analyses also supported Leiter and Maslach's (2004) finding that workload followed a different pathway to the other five areas of worklife, by demonstrating a consistent direct relationship with exhaustion. Most of the path analyses also indicated a direct relationship between workload and absorption. Intriguingly this relationship was a negative one,

indicating that mismatches on workload were associated with high levels of absorption and vice versa.

7.4 Hours of work per week and the new cluster groups.

Additional investigations into hours per week that respondents spent on work tasks at work and at home found that The Empowered Group (NC1, n=73) reported their working hours ranged from 20 to 105 hours per week. The mean hours per week for The Empowered Group was 46.87 (SD = 13.12). The Under Pressure Group (NC2, n = 110) respondents reported a range from 12 to 99 hours per week (mean=49.57, SD=12.55). The reported range for The Unengaged Group (NC3, n=158) was 10 to 70 hours per week (mean=45.40, SD =10.45). The Burnout Experience 1 Group (NC4, n=95) reported a range of 16 to 90 hours per week with a mean of 51.16 (SD=13.34) and those respondents from The Severe Burnout Group (NC5, n=79) reported a range of 10 to 84 hours per week with a mean of 42.47 hours per week (SD=12.80).

It was apparent from the range of hours per week reported in the current research, large numbers of respondents from all cluster groups reported that they worked long hours per week. In order to achieve a more comprehensive understanding of this, the total hours per week were recoded into categories based on the Queensland Department of Industrial Relations (QDIR) (2003) report. The QDIR reported minimum to 39 hours per week as ‘normal hours employees’, 40-49 hours per week as ‘long hours per week employees’ and 50+ hours per week as ‘very long hours employees’. Timms, Graham and Cottrell (2007a, see also Chapter 3) added another category ‘extremely long hours’ employees’ to cover those who worked 60+

hours per week. The current investigation provides additional information with two more categories. This information is found in Table 7.6.

Table 7.6. Cluster groups and hours of work per week based on QDIR (2003) report categories

	(NC1)		(NC2)		(NC3) *(combined subgroups)*		(NC4)		(NC5)		*Total*	
	N	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*	*N*	*%*
Normal hrs employees < 39 hours per week	15	20.5	14	12.7	36	22.8	12	12.6	27	34.2	104	20.2
Long hrs employees 40-49 hours per week	26	35.6	40	36.4	62	39.2	28	29.5	33	41.8	189	36.7
Very Long hrs employees 50-59 hours per week	21	26.8	35	31.8	45	28.5	28	29.5	12	15.2	141	27.5
Extremely long hrs employees 60-69 hours per week	7	9.6	14	12.7	11	7.0	18	18.9	4	5.1	54	10.5
70-79 hours per week	3	4.1	4	3.6	4	2.5	7	7.5	2	2.5	20	3.9
80+ hrs hours per week	1	1.4	3	2.7	0	.0	2	2.1	1	1.3	7	1.4
Total	73	100.0	110	100.0	158	100.0	95	100.0	79	100.0	515	100.0

Yang, Schnall, Jauregui, Su and Baker (2006), reporting on a working population in California, found that those who worked ≥51 hours per week were 29% more likely to report that they suffered from hypertension. When this finding is applied to Table 7.6, it is noted that 42% of The Empowered Group, 51% of The Under Pressure Group, 38% of The Unengaged Group, 58% of The Burnout Experience 1 Group and 24% of The Severe Burnout Group respondents were working ≥ 50 hours per week. When it is considered that 43% of 515 respondents reported that they worked ≥ 50 hours per week it is observed that this factor must

constitute a risk to their physical health (Yang et al., 2006) and consequently contribute to the development of both the exhaustion and disengagement dimensions of burnout (Sonnentag, 2005).

7.5 Discussion of findings in Chapters 6 and 7

A desire to establish a clearer sense of what items within the measures used in the current research meant to respondents led to closer examination of the instruments themselves. This was done by means of maximum likelihood factor analyses and eventually to the need to recalibrate variables and revisit the cluster analysis process (originally conducted in Chapter 4) with a subset (n=515) of the original data (n=561). The revisiting of the cluster analysis process with the recalibrated variables redefined the clusters and redistributed some respondents. Although the redistribution was, in most cases, to neighbouring clusters, the overall outlook assumed quite a different profile. Originally, 51% of the current subset of respondents belonged to the first and second groups identified by the first cluster analysis. After redistribution 36% of respondents belonged to either The Empowered Group or The Under Pressure Group. The Empowered Group (NC1) was an extremely positive group. While The Under Pressure Group (NC2) were still positive and endorsed all UWES variables, they indicated that they suffered from exhaustion. Examination of the distribution of AWS variables indicated a mismatch on workload and ambivalence in regard to fairness for this group. Later when hours of work was considered, it was noted that 51% of The Under Pressure Group worked ≥ 50 hours per week with a further 36.4% working between 40 and 49 hours per week (see Table 7.5). What is particularly interesting about The Under Pressure Group is that they indicated identical scores for vigour and exhaustion (z = .43, Table 6.6) which

were previously identified by Gonzalez-Roma, Schaufeli, Bakker and Lloret (2006) as opposite poles of one energy construct. This would suggest that these respondents report being simultaneously energised and exhausted by their work.

Yang et al. (2006) found that people who work more than 51 hours per week were 29% more likely to suffer hypertension. Sonnentag and Zijlstra (2006) warned that such sustained depletion of individual resources led not only to fatigue (i.e. exhaustion) but in the absence of opportunities for the individual to recover, to "losses of function, and physical and mental impairment" (p.330). Sonnentag (2005) also suggested lack of a chance for psychological detachment from the work environment led to the development of more involuntary forms of detachment, such as disengagement, as a means of coping with workload.

It is posited that this may well be the case with The Burnout Experience 1 Group (NC4), 58% of whom also reported working ≥ 50 hours per week with a further 29.5% working 40-49 hours per week. Exhaustion is the primary burnout experience for The Burnout Experience 1 Group, followed by disengagement (see Figure 6.2). Unlike The Under Pressure Group, who endorsed all UWES variables including vigour and also indicated that they were exhausted (but not disengaged), those in The Burnout Experience 1 Group indicated that they were disengaged and did not find that their work was meaningful or energising.

7.5.1 Role Conflict

The path analytic models for The Burnout Experience 1 Group and The Severe Burnout Group (Figures 7.6 and 7.7) were the only models indicating a pathway between control and workload that extended to exhaustion and on to disengagement. Leiter and Maslach (2004) suggested that role conflict, where workers preferred roles

are incongruent with important characteristics of the job, is predicted by mismatches on both control and workload. It was projected in Chapter 1 that mismatches on values were in all probability, implicated as well in the case of role conflict. The path analysis for The Burnout Experience 1 Group (Figure 7.6) does not appear to support this, but that from The Severe Burnout Group (Figure 7.7) does. However it is noted that respondents from The Burnout Experience 1 Group also indicated mismatches on all the AWS variables including values (see Figure 6.3). The path analysis for The Burnout Experience 1 Group demonstrated that mismatches on three of the AWS variables (community, fairness and values) did not appear to have influence in regard to exhaustion or disengagement, and (unlike previous models, but consistent with that for The Severe Burnout Group) there was a direct pathway from reward to disengagement. Also, unlike the previous path analyses but consistent with The Severe Burnout Group, workload acted as a mediator between control and exhaustion.

According to Leiter and Maslach (2004) role conflict in workers is symptomatic of major organisational dysfunction:

> Role conflict suggests control problems in the organization. It arises from multiple authorities with conflicting demands or incongruent values. When experiencing role conflict, individuals cannot exercise effective control in their work. Contradictory demands interfere with their capacity to set priorities or to commit themselves fully to their work (p. 477).

An aditional values perspective in respect to this observation is provided in organisational commitment literature which indicates that individuals' 'belief in and willingness to exert effort of behalf of organizational goals and values" (Reichers,

1986, p. 508) is very much dependent on the absence of conflict in regard to competing demands (see also, Mathieu & Zajac, 1990; Redman & Snape, 2005). The extended pathway from exhaustion to disengagement indicates that exhaustion mediated disengagement. This is consistent with Sonnentag's (2005) premise that the inability to detach from work and be mentally occupied with completely different matters contributes to the development of involuntary disengagement as a psychological coping mechanism.

7.5.2 The Unengaged Group

The Unengaged Group (NC3) indicated that they were ambivalent towards vigour (energy at work) and dedication (enthusiasm, inspiration, challenge and a sense of meaning), and disagreed that they found their work absorbing. In spite of this, people belonging to The Unengaged Group also indicated that they were not disengaged or exhausted by their work. This finding is inconsistent with the suggestion of Maslach and Leiter (1997) that burnout rises as engagement is eroded, or Maslach, Schaufeli and Leiter's (2001) proposition that burnout and engagement may be opposite poles of one construct. Instead, the finding supports Schaufeli and Bakker's (2004) premise that burnout and engagement are separate, negatively correlated constructs.

When it was found that respondents from The Unengaged Group responded to the AWS variables and the CJMT variable in two different ways, it became necessary to subdivide this group. The two subgroups have demonstrated different dynamics at work in ensuing path analyses. This issue will be pursued in Chapter 8 using interviews with six people who belong to The Unengaged Group.

7.5.3 Interaction of the areas of worklife within the new cluster groups

Path analyses in Chapter 7 indicated that the model extrapolated from Leiter and Maslach (2004) (see Figure 6.1) did not provide adequate or sufficient explanations of the processes that occur with individuals' experience of their workplace environment. One finding that was consistent within most of the groups identified in the cluster analysis was the finding that the control (autonomy), reward (appreciation and recognition), community (trust, support and communication), fairness (decisions are made equitably) and values (personal values are congruent with those of the organisation) areas of worklife interacted in a particular way. This pattern was traced in Figure 7.8 and emphasises the synergy of these variables that are associated with relationships in the workplace.

7.5.4 Workload and absorption

It was of interest that the reported strong association of workload and absorption was a negative one in most groups, suggesting that a mismatch on workload was associated with high absorption. In view of the fact that 43% respondents reported working ≥ 50 hours per week (see Table 7.4) and that items did not load particularly strongly on the absorption construct (see Table 6.1) one suggestion might be that the absorption construct may have not been interpreted as a positive construct by respondents in the present study.

7.5.5 Engagement

An alternative proposition is that mismatch on workload was not necessarily viewed as a negative aspect of their work lives by respondents. This proposition would support the finding of Langford, Parkes and Metcalf (2006) that work/life balance was not a contributor to employee engagement. Langford et al. found instead that the

important contributors to employee engagement were involvement, reward, recognition, performance appraisal and career opportunities. This finding is also supported in the current study as the path analysis for the most positive group in the study, The Empowered Group (NC1) demonstrates a significant link from community to vigour and one from values (which is linked by mediation processes to control, reward, community and fairness) to dedication (see Figure 7. 2). It is cautioned however that comparisons between Langford et al.'s engagement construct and the UWES (Schaufeli & Bakker, 2003) have yet to be conducted, and they may not be comparable. Langford (2006), in his unpublished paper presenting the psychometrics of the Voice Climate Survey (VCS), claimed that there were no valid measures of employee engagement that were freely available to researchers in spite of the fact that engagement had been receiving a lot of attention from researchers. As Schaufeli and Bakker's (2003) measure is available to academic researchers (in the form of a file readily downloaded from Schaufeli's web site) in an honorary exchange for raw data (for validation purposes), it is observed that Langford's claim is debatable.

7.5.6 Fairness and CJMT

Path analyses in all cluster groups indicated that fairness within workplaces assumed an important role in defining values along with control, reward and community. In The Burnout Experience 1 Group (NC4), values had no significant relationship with any of the OLBI or UWES variables, and assumed the role of outcome variable. The emphasis on fairness appeared to become stronger as the path analyses progressed through the groups identified in the cluster analysis. The path analyses for The Unengaged Group (Match and Mismatch subgroups, Figures 7.4 and 7.5) indicated a

direct link between fairness and vigour. In the case of the Match subgroup, this was a positive relationship indicating that these respondents reported fair processes to be energising. However in the case of the Mismatch subgroup, unfair processes were also reported as energizing, indicating that these respondents responded to unfair processes in their workplaces with increased vigour (this issue will be discussed in Chapter 8). Examination of the path analysis for The Burnout Experience 1 Group (NC4, Figure 7.6) demonstrates a path from fairness to values, which, in turn, does not connect to any of the OLBI and UWES variables.

In regard to The Severe Burnout Group (NC5) a direct negative relationship (β = -.26) between workload and fairness (indicating that a mismatch on workload was associated with a match on fairness or vice versa) was unexpected. This finding is especially puzzling because the same path analysis indicated a positive relationship (β = .22) between workload and values (see Figure 7.7 and Appendix D, Table D.8). It is noted that the mean score on fairness for The Severe Burnout Group (was z = -.74 (indicating mismatch), the mean score for workload was z = .06 (indicating ambivalence in regard to workload) (see Table 6.6). It is therefore suggested that other variables, not identified in the model, may well be implicated in relationships between these variables found in the present research.

7.5.7 The CJMT variable

The recalibrated fairness and the CJMT variables achieved a correlation of r = .73, p < .001, however the recalibrated values and the CJMT variables also achieved a high correlation r =.75, p <.001 (see Appendix D, Table D.8). The CJMT variable was comprised largely of management trustworthiness items, after establishing that the management trustworthiness construct and the procedural justice construct were

covering similar ground (see Chapter 5). It is of particular interest that the CJMT variable could be successfully substituted for the fairness variable in all path analysis models, because this emphasizes the role played by fair procedures and management trustworthiness in establishing an environment whereby employees experience burnout or engagement.

7.5.8 Limitations and Recommendations for future research

Perhaps the biggest problem that surfaced in the present research was the fact that items from the various scales did not load as was intended by their authors. This created the situation whereby recalibration of the variables using the procedure outlined by Cunningham (2007) was necessary, in order to determine how the variables interacted in path analyses.

The current research provides some information in regard to how the AWS (Leiter & Maslach, 2006) interact in relation to the OLBI (Demerouti et al., 2002) and the UWES (Schaufeli & Bakker, 2003). It is noted that in the current research these measures have been used with Australian samples. The AWS has been previously used mostly with Canadian samples (Leiter & Maslach, 2006), and the other two scales have come from the Netherlands, although they have been used previously in other countries (Demerouti et al; Schaufeli & Bakker, 2003, Schaufeli Taris & Salanova, 2007). An example of the use of the UWES with an Australian sample is Biggs and Brough (2007) who did not report a factor analysis. Their longitudinal study of correctional staff (n=235) reported alphas for vigour (α= .79 and .93), dedication (α = .93 and .92) and absorption (α = .84 and .86) that are comparable to those achieved in the current study for these variables: vigour (α =.73 [teachers] and .76 [online]); dedication (α =.87[teachers and online]) and absorption

(α =.75[teachers] and .76[online]). Unfortunately Biggs and Brough used the Copenhagen burnout inventory (CBI) developed by Kristensen, Borritz, Villadsen and Christensen (2005) whereas the current study used the OLBI (Demerouti et al., 2002) to measure burnout, so direct comparisons between the two studies on the burnout measure are not possible.

The different interpretations of the variables reported in the current study may or may not be as a result of cultural differences from populations that have previously been surveyed using these variables. It is therefore recommended that when further studies using the AWS, OLBI and UWES variables are conducted with Australian populations, particular attention should be paid to respondents' interpretation of items. An alternate explanation for different interpretations within the current study, to those reported in previous research, may be an element of the types of employment pursued by people who participated in the current research. Although it is worth mentioning that while one phase of the current research targeted a homogenous group (teachers), the other phase of the research (the online survey) had a diverse range of respondents. Nevertheless 73% of respondents in the current research were professionals (ie. they had, at least, an undergraduate university degree) as defined by McLennan (2006) which may have had some bearing on item and variable interpretation.

In the case of AWS variables, there was evidence that one control question "I can influence management to obtain the equipment and space I need for my work" did not load with the other items from the control scale in the factor analysis, it therefore had to be discarded leaving only two predictor items for the control construct (see Appendix C, Table C.3). It is to be hoped that future development of

the AWS will provide researchers with a stronger control variable as two item constructs prove problematic when used with Amos 7. Problems identified with the OLBI (Demerouti et al., 2002) in the current research included several items from both scales (exhaustion and disengagement) (see Appendix C, Table C.11), however these scales began with eight items each, leaving enough items to capture these constructs well (see Table 7.3).

In regard to the UWES (Schaufeli & Bakker, 2003) variable of vigour, the construct was interpreted as having two dimensions by respondents in the current study: one that loaded with dedication items and denoted ability to persevere (3 items) and one that indicated work is energising for the individual (3 items). Items that indicated the second form of vigour were maintained in the recalibration of variables. It was of interest that the absorption items (indicating immersion in work and that the individual does not notice time passing) loaded negatively with workload in path analyses, indicating that respondents associated mismatch on workload (not having enough time to do the work) with absorption. This may provide some support for Langford, Parkes and Metacalf's (2006) finding that worklife balance does not predict worker engagement. However a caveat must be placed on this finding in view of a strong Pearson's correlation previously noted between workload and absorption ($r = .34$, $p < .001$) in Table 4.2. It could be that the negative path is more reflective of multicollinearity among variables. Therefore it is suggested that future path analyses using workload and absorption take particular note of these pathways.

In regard to dedication, apart from the most positive group in the current study (The Empowered Group, NC1), there was considerable evidence that respondents in

the current study interpreted these items in many different ways and the construct was not well explained in most path analysis models. It is therefore recommended that future research with Australian populations include further exploration of the UWES with its equivalent construct from Langford's (2006) Voice Climate Survey (the passion construct) in order to identify a positive variable about work that will provide a more accurate reflection of Australian respondents' experiences.

Chapter 8

Respondent interviews

The current chapter provides information on interviews that were conducted with 20 survey respondents who indicated that they were willing to provide the researcher with more insights into their relationships with their work. The interview material is presented within the framework of the groups identified in the cluster analysis and findings support this categorization of respondents. Discussion that includes insights gleaned from Chapters 6 and 7 is provided after the interviews within each group.

8.1 The Interview Stage of the Research Project

The final stage of this research involved reaching those survey respondents that had provided contact details, thereby indicating that they would be willing to be contacted for a follow up interview. This stage of the research took place 14 months after the teachers' survey had been conducted and six months after the online survey had ceased to be live. Because of time constraints, only those who provided email addresses (n=79) were contacted. Thirty respondents were no longer at the given email address, this was determined by emails that were not deliverable. A further 24 respondents did not respond to the email. Twenty five participants responded that they would be willing to be contacted by phone for an interview, or alternatively, to respond to questions in an email.

These respondents were provided with a personal report charting their individual responses to the AWS, UWES, OLBI and the management trustworthiness variables

and a copy of the questions that would be asked in the telephone interview, so they could consider their responses. At the risk of possible priming of respondents it was decided to use a structured and directive introduction in order to: direct participants thinking to the frame of mind they were in at the time of completing the survey and to reflect on developments since that time; to ensure that the interviews were conducted in a uniform way; and to achieve usable data within a short time frame. This approach has been previously used in focus group interviews (Dick, 1998; Millward, 2000;Vaughn, Schumm & Sinagub, 1996). Four people did not respond to this second contact and one was unable to be interviewed because of a sudden change in family circumstances. All of those who participated in the telephone interview were happy for it to be recorded. Five participants chose to respond by email.

The format of the questions asked appears in Appendix E. Findings from the original clusters of respondents formed the basis of questions. However for parsimony, interviews are presented within the framework of the second cluster analysis. Fortunately, data from all of the 20 interviewees were retained in the second data set (n=515) that had eliminated responses with missing values (n=46). All interviewees were provided with pseudonyms and the reader is reminded that the clusters were determined on the basis of responses to the burnout (OLBI) and engagement (UWES) measures only.

8.1.1 The Empowered Group

Of the four interviewees who belonged to the original cluster one En1, after the second cluster analysis reported in Chapter 6; only two belonged to The Empowered Group (NC1). These were Kate and Maggie. While it would have been desirable to

have more participants representing new cluster one, they proved to be the group least likely to respond to the researcher's email contact message.

Kate. Kate is a freelance journalist who is in the 55-59 year age group who works 40 hours per week. Figure 8.1 provides Kate's responses on the Oldenburg burnout inventory (OLBI), the Utrecht work engagement scale (UWES), the areas of worklife survey (AWS) and the combined justice and management trustworthiness (CJMT) developed in Chapter 5.

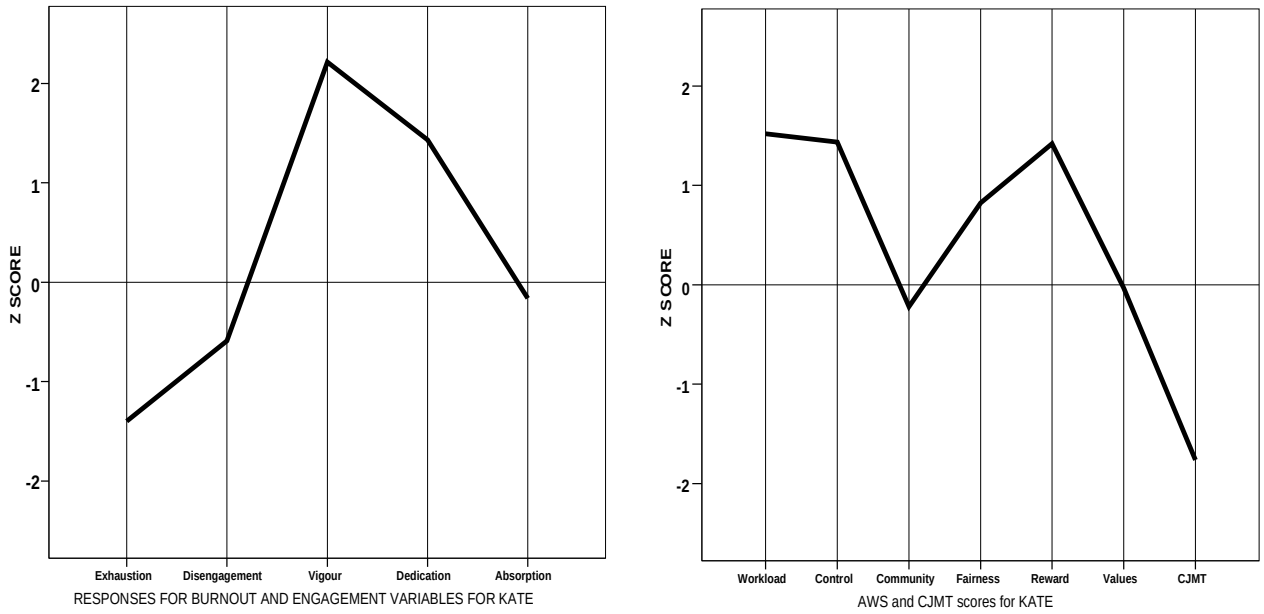


Figure 8.1. Kate's scores on OLBI and UWES (left), AWS and CJMT (right) variables.

Kate's profile demonstrates disagreement with burnout variables of exhaustion and disengagement, strong agreement with the engagement variables of vigour and dedication and ambivalence towards absorption. She indicated matches on the AWS variables of workload, control, fairness, reward, ambivalence to community and values and disagreement with the CJMT variable. At first glance it would appear that

the CJMT response is inconsistent with the rest of her profile and challenges the research hypothesis. However Kate explained this in a survey comment which she subsequently endorsed in her interview:

> The above 20 answers on senior management are based on when I worked part time for an organisation and senior management were idiots and had no idea how to manage people plus some bullied employees - that is why I now work freelance and choose who I work for and only work for people and companies that I like.

Kate commented that working as a freelance journalist and trainer enabled her to accept only the work in Australia, and internationally, that she enjoyed. Therefore her work environment provided her with:

> Freedom to do the work I want to do and to work for companies that I want to, when I want to do the work and, at most times, to name my due dates for completion. I work an eight hour day usually and then I have fun pursuing my leisure activities and hobbies like pottery, swimming, speedy walks and Japanese conversation classes.

Kate found that she was able to keep busy,

> I get new jobs, assignments and new companies to work for all the time and they usually approach me, not me them. In any one week, I could be working for companies in Singapore, Tokyo, Sydney, Melbourne and in a wide range of areas… .. Companies approach me often, rather than me approaching them, so I guess that I am a lucky lady.

The only ‘down side’ she saw in her work life was: “working on my own as I am a very sociable person”, this perhaps explains the fact that she indicated ambivalence on the community variable. Likewise her attitude towards media

companies perhaps indicates the source of her ambivalence on values: “working for an organisation full time is wrong as employees are bullied and forced to work more and more to make the bosses more money”.

Maggie. Maggie is a primary school art teacher who is in the 45-49 year age group, she reported that she works part time (25 hours per week), although she mentioned that at report time she works much longer hours. Figure 8.2 provides Maggie’s responses on the OLBI, UWES, AWS and the CJMT developed in chapter 5.

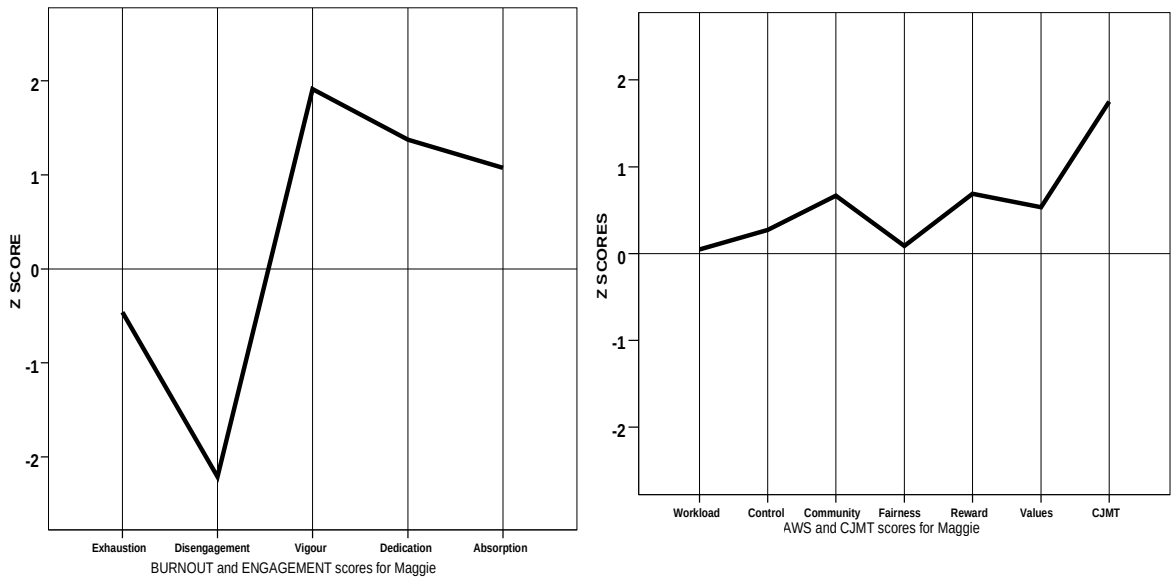


Figure 8.2. Maggie’s scores on OLBI and UWES (left), AWS and CJMT (right) variables.

Maggie reported no sign of burnout, she disagreed with both exhaustion and disengagement, she indicated that she was engaged in her work and indicated matches on control, community, values and confidence in her school administration. However there were reservations in regard to workload and fairness. When asked about this she commented:

> The amount of work that I put in, compared to the amount of work I am paid for, is two different things. I suppose you get that all that the time. I would put in an extra 10-15 hours per week of work that is not part of my work contract. I was thinking, “When do I normally leave school?” and its about 4.30pm most days and I start at 8am, but I don’t really count that, because its just setting up, more like the planning and resourcing materials and things like that.

Maggie did expand at length on the extra aspects of her workload that were not factored into her working time for the day, this included cleaning up at the end of the day. When asked if this had been considered when teacher aide time was allocated, she commented that although she would love to have an assistant to help with the cleanup, school budget constraints meant that teacher aides’ time was committed to literacy and numeracy. From Maggie’s perspective this was an indication that the school administration had allocated a very limited resource (teacher aide time) to the area of greatest need:

> This is brilliant! You don’t find any teachers’ aide operating the photocopier and (except the library person) they are not involved in displays or anything like that. So it’s a very big commitment our school has made – so that’s why I don’t get time allocated for cleaning up. I do manage and I guess when you’re capable, you don’t really get the help you need.

Maggie also indicated that she experiences some difficulties when it came to paperwork that is a necessary part of her job:

> The other thing I find that takes an awful lot of time is reporting. I do report on each child in the school, so, I’ve got 398 reports to do and I comment on all five strands of the Art syllabus, so that’s always tricky.

In addition to working hours in excess of those she is paid for, Maggie organises parent workshops once per term. She invites a guest artist and she attends the workshop as a participant alongside the parent participants. This allows her to forge new relationships among the parents of the children she teaches and as a result: "I have a lot of parents that support me …so if I need any help, they are just there; it's really, really great!"

When it was pointed out to Maggie that her response to the AWS variable of fairness was ambivalent, she noted that her status as a 'fixed term contract' teacher was a source of concern for her. She had worked in her present school for eleven years and:

> Well as far as I know that won't change and I hate it, every year it disheartens me. But I am very open with the principal and have told them how I feel about it. We usually have a meeting with the principal at the beginning or at some time during the year, about what's going well, and what would you like to do differently etc. I always make of point of saying that I feel vulnerable on a fixed term contract. I've been verbally assured all the time that (by the last 3 principals) that 'the job is yours as long as you want it'. It would be nice to have a bit more permanency; I think I am the only one left on a fixed term contract now on staff.

Although she has expressed one of her main disappointments in this piece of dialogue, Maggie was appreciative that the opportunity to convey this disappointment was afforded her and that the communication channels in the school were kept open. She was also appreciative that the principal is on 'morning duty' every day; this makes him visible and available to any parent, teacher or child who needs to speak to him:

> He stands right in the middle of the playground, there for anyone to see and I know that is brilliant strategy on his part, because you can solve a lot of little things very quickly, but also it, to me, is indicative of his approachability.

When asked if she had previously had experience of bad leadership in her teaching career, Maggie remembered, from very early in her career, an unapproachable woman who alienated and factionalised staff. However, she recalls that most of her principals have been ethical and committed people. She reflected on the courage exhibited by her first principal at the current school, also a woman, who had followed a principal who "was 'buddies' with all the parents and had fairly loose boundaries when it came to appropriate behaviour". Maggie's experience of the changeover of principals had been as a parent, not a member of staff, and her employment at the school commenced just after the changeover. Therefore, according to Maggie,

> When J came along, she really couldn't believe this casual attitude to everything and really tightened up procedure. For example, it was a very social school. When we first went there somebody said to us, "it's a terminally social school" and it was... you know we went to karaoke nights that went to 1 and 2 in the morning. Children running round the playground and parents blind drunk. That was sort of accepted by the previous principal. When the new principal, J, came, she said "we can't be doing this, this is wrong", apart from WHS [*Workplace Health and Safety*], it is irresponsible and if children are present, there isn't any alcohol. … So she made some unpopular decisions, but I thought she was a very brave person. I think she did what was necessary. So the principal that came after her, he got it easy. She had made so many significant changes in terms of drawing boundaries; he got to just walk into those

> boundaries. He wasn't seen as the bad guy, whereas she had been seen as the bad guy.

When Maggie was asked, in view of her current lack of permanency, if she would consider seeking other work, she said,

> Well I am offered jobs regularly. It is really interesting, I love learning and I love new environments and there's a little part of me that says "well a new challenge would be exciting' but, when I put my reality glasses on I think, "Why would I want to leave a beautiful, beautiful, school with the most fantastic children and community?"

8.1.2 Discussion of insights from The Empowered Group interviews

These two interviewees present two faces of workplace engagement. On the one hand Kate has carved out a career for herself working as a freelance journalist. She enjoys a busy career complemented by an active and rewarding personal life; on the other hand she has a very negative attitude towards the large organisations that employ journalists. Kate's one regret about her current work arrangements is the fact she has to work on her own. This is consistent the finding in chapter 7 for The Empowered Group that the community variable (support and a cooperative environment with open communication) loads directly on the UWES variable of vigour (see Figure 7.2), thus providing people with a work environment they find energising. Maggie illustrates the powerful role played by matches on the community variable when she feels free to mention her disappointment over the fixed term contract nature of her job at her annual meeting with the principal. It indicates that in spite of her lack of permanence, she has a sense of belonging and feels supported in her role as a specialist art teacher in a primary school.

Both women indicated that they had experienced previous poor management. Kate saw inability to handle people as a general feature of management that contributed to her decision to work freelance and thus experience the positive qualities of her journalistic career, while recognising that she is missing out on collegial interaction. Whereas Maggie saw her previous experience as one that did not necessarily characterise all principals. Kate sees herself as a 'lucky lady' because her (no doubt well earned) reputation brings her plenty of work. Likewise, Maggie expressed a sense of good fortune when she indicated that she has not taken up offers of alternative work, preferring to stay where she feels supported.

Because Kate does not experience community in her work situation, it is not possible to comment on the complex interaction of control, reward, community, fairness and values (illustrated in Figure 7.8) in her case. However, it is noted that Kate feels rewarded by the fact that companies want her to write for them and she only works for those companies she 'likes' suggesting that congruence in values factors into her decision to accept contracts. Maggie on the other hand, does demonstrate that she has the autonomy that characterises control, feels rewarded by the affirmation of parents and children, feels supported by her colleagues and school administration, has a sense of fair process and personal values that are congruent with her place of work. As indicated in the path diagram for The Empowered Group (Figure 7.2), these would contribute to her enthusiasm, and sense that the job she does is full of meaning and purpose (dedication). Her ambivalence about fairness is in all probability related to systemic policies about the employment conditions of specialist teachers and is therefore unrelated to day to day work experience.

8.2 The Under Pressure Group

The pattern of response shown by respondents from The Under Pressure Group (NC2) indicated a general trend agreeing with UWES variables of dedication, absorption and vigour. An apparent anomaly that appeared in this group was the same score (z =.43) for vigour and exhaustion, indicating that respondents were simultaneously exhausted (OLBI) and energised (UWES) in their work. The revisiting of the cluster analysis found that four respondents belonged to The Under Pressure Group; two (Ed and Susan) had originally belonged to the original cluster 1 En1, one (Alex) had originally belonged to the original cluster 2 En2, and one (Nick) had originally belonged to the original cluster 4 Bu2.

Ed. Ed is a primary school teacher who is in the 50-54 year age group; he reported that he works 65 hours per week. Figure 8.3 provides Ed's responses on the OLBI, UWES, AWS and CJMT. The scale for the AWS variables has been adjusted to accommodate Ed's extreme mismatch with control.

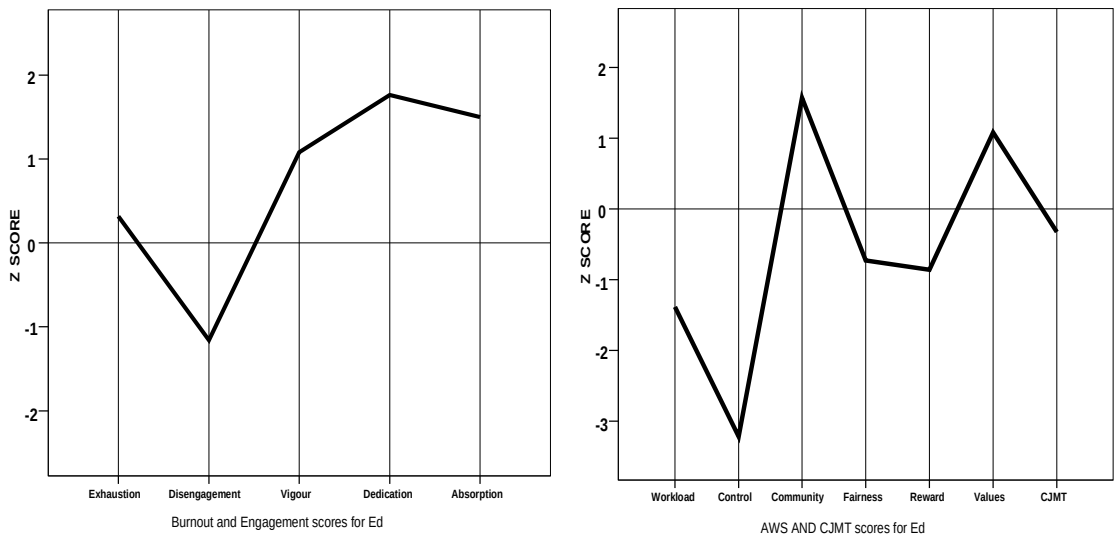


Figure 8.3. Ed's scores on OLBI and UWES (left), AWS and CJMT (right) variables.

While Ed did not demonstrate signs of disengagement, he did indicate that he experienced exhaustion, he also recorded agreement with the UWES variables of vigour, dedication and absorption. In regard to the AWS, Ed demonstrated mismatch in four areas, workload, control, fairness and reward. The only AWS matches he recorded were in community and values. Ed is a very committed member of the religious organisation that runs his very large p-12 school in a major urban centre in Queensland, and he emphasized the importance of the community values espoused in the mission statement of his school "we meet for bible study on Wednesday in groups and Friday we have a sing along, this is really strong".

Ed's teaching career has spanned 30 years and, with the exception of five years as a principal, has been mainly in middle primary classrooms where he experiences most satisfaction:

> To me it's the students in the class who make what teaching's all about. It doesn't matter if you have electronic whiteboards or if you are under a tree, to me it's the students who bring me my buzz for the day and make me get up and hop on my bike and ride to school. I have really enjoyed this term. The classroom to me is magic.

Ed encourages parents of the children he teaches to come into his classroom and participate in activities. To him this contact is important because 'it is a good way for them to find out what I'm like, they need to feel comfortable that they know the classroom environment and the teacher". He also indicated that he is happy to receive telephone calls from parents at night time in regard to classroom issues or homework, in order to ensure parents are completely at ease. He enjoys this contact

with the wider community and the feeling that he is contributing to the wellbeing of his students.

When asked about the observed mismatches with the AWS variables, Ed mentioned that, as well as absorbing numerous government changes in the legislation governing education in terms of reporting and curriculum, the school had committed to become authorised as a representative of a very large international educational organisation, the name of which is withheld because it could identify Ed's school. This had added to his workload in the form of compliance paperwork "and it wasn't very helpful in terms of us recording notes and details to improve our teaching in the following year. It seemed to just be satisfying the demands of the organisation".

In terms of his emphatic mismatch on control, Ed felt that the school commitment to the international organisation had impoverished his teaching and that of others. This was because special interests of teachers such as art or science could only be shared with children within particular topics and timeframes. As a consequence, the unique individual contributions teachers could make to encouraging special interests in children, and spontaneous learning experiences was limited, "twenty years ago there was more freedom, I love artwork, I would regularly, each week, do some art work with the children, whereas now, it has to be programmed in, if you want to do it".

In regard to his mismatch on the reward variable, although Ed mentioned several times that he feels rewarded by his good relationships with the children he teaches and their parents; he has an acute feeling that he and his colleagues are underappreciated by the school's administration:

> When you think about the fact that a person's been there over 15 years, and you are very much part of the school, recognition of that fact, and I've been a principal for over five years, I believe that.. yeah, that more than public affirmation for the whole staff is required. There is no personal affirmation of us and what we do.

Ed commented that he did not experience running battles with the school administration; however he is conscious of colleagues experiencing less than perfect health, personal problems, or problems with their teaching who are struggling and do not receive support. In his own case, within the previous two weeks he had been working with two pre-service teachers in his classroom, and had asked his principal, in view of the need to spend time with them reviewing their day and providing feedback as to their progress, that he be relieved of his afternoon playground duties. He was told that this wasn't possible and that:

> "It will be over in two weeks". So it was all too hard for him. So that sort of thing and I'm organising a fete as well, this also takes a lot of time. If there had been another sort of response, it would have lifted my spirits and given me a bit of a boost. I can get depressed about it, but I think, oh well it's just another area where "OK, its tough but you just have to lump it". I felt it was a bit unfair; there are a number of teachers who don't have duty, and don't have student teachers.

Ed further commented globally that, in his experience, the vital work performed by teachers was not valued and that in his view that this could only have negative consequences for the education of children:

> I believe the heart of the school, even though we often talk about it as being children, is the teachers. Teachers are the ones who generate everything that happens in the school. They are the ones who are working

> with the students, working with the personal lives of the children whether they are prep children or year 12. They are the ones who are encouraging them and so on. If we forget to look after the social, mental, emotional well being of the teachers, and don't affirm them and don't help them to feel valued, then that's preventing education to be at its best. The children then suffer because their teachers are struggling; they are not as 'sparky' and lively as they could be. More and more teachers are taking sick leave, taking time off, emotional days. I think, "Is it really necessary to have such a high powered work environment? How can we get the balance?" People work very, very hard, but at the end of the day, if people are acknowledged if there is give and take…. there is a feeling within a staff community, where if that happens, people feel encouraged to keep going.

Susan. Susan belongs to the 50-54 year age group and reported that she works 47 hours per week in a very large independent high school in a regional centre of Queensland. As well as teaching, Susan holds the vocational education and training (VET) coordinator position in her school, a middle management position that is referred to, in independent schools in Queensland, as a position of added responsibility (PAR). Susan's profile on the OLBI, UWES, AWS and CJMT appears in Figure 8.4.

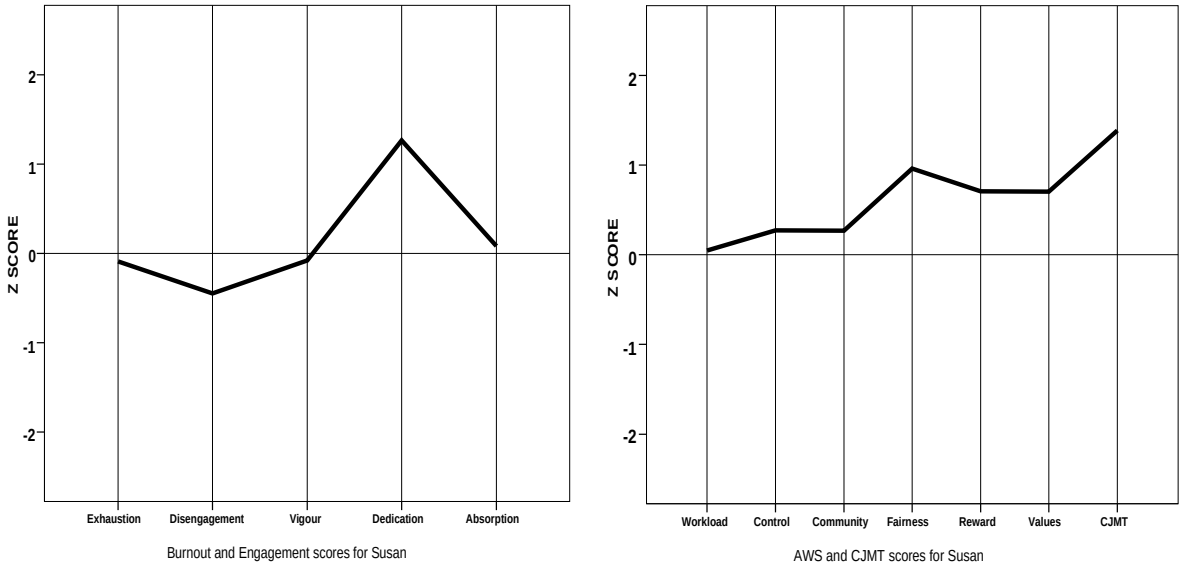


Figure 8.4. Susan's scores on OLBI and UWES (left), AWS and CJMT (right) variables.

Susan has a teaching load of three classes which translates to 29 lessons a fortnight; this is regarded as a reduced teaching load. Her school has the most school based apprentices in the area and the rest of her time at work is devoted to the necessary coordination for these, "I feel that my position is valued and time is allocated for me to do the work I need for my job". She has been at the school for three years, after being 20 years at her previous school. Her last few years at the previous school had been very taxing. There she had also been VET coordinator, but she had not been allocated time for the role and had had to do most of it in her own time, in addition, the school administration had been coercive, unpleasant, uncooperative and unaccommodating, "bullying and harassment were the norm….I am in the same role, but the equity issues, support, time to do the required job,

appreciation of what you do etc. are poles apart". The stress involved in performing her previous job had led to Susan's resignation. However, it did not take long for the employing authority for both schools to seek her out when a VET coordinator was needed at her present school. This allowed her to negotiate her present working conditions. When asked if she would stay at the school she replied:

> If this school stays the way it is, I will stay here. I don't have to take any work home, even though we are the school with the most apprentices in the area. I do attend some meetings at night; however they are probably once every two months. Previously I was making my workplace visits after school had finished in the afternoon and even conducting breakfast meetings at my own home in order to achieve all the necessary contacts with business, industry and other schools.

When asked about her present school administration, Susan replied:

> I am kept 'in the loop' by administration and have constant contact with the deputy principal. She supports me and this helps me to do my job properly. The principal is team oriented and a very thoughtful person. There is mutual respect from my perspective. He doesn't react quickly; he takes time for a measured and thoughtful response and keeps the lines of communication open. He does have 'quirks', special words that he likes to be used, but when you know these, you know how to put things so he will respond to them – he follows up on everything.

As the school is very large there are several deputy principals and Susan indicated further that her previous experience had made her very cautious:

> There is a deputy I give a wide berth to – she is nasty and would exert the type of power abuse that I've seen before. However she does not get the

> opportunity to over rule. There are several deputies and they have banded together to prevent that happening.

Susan was asked to discuss her ambivalent response to vigour and absorption, she responded with some of the issues she perceived to be facing those working in high schools:

> The biggest problem with teaching now is that teachers are more stressed, 70-80% of students 'back answer' all the time, lots of teachers have given up because they have run out of strategies. Because of this administration gets stricter and tries to expel students, however there are other considerations, like parental threats of legal action. In addition, the [*employing authority*] intervenes on student discipline matters and the school is told that certain students cannot be expelled. To make matters worse the [*state government authority*] does not provide guidance on whether a student with a large absenteeism record could be denied a Senior Certificate.

Alex. Alex is in the 40-44 year age group and is an engineer holding the position of occupational health and safety (OH&S) manager in a large multinational company. He reported that he generally works 55 hours per week; however this can increase substantially when projects reach vital stages. Alex's profile on the study variables appears in Figure 8.5.

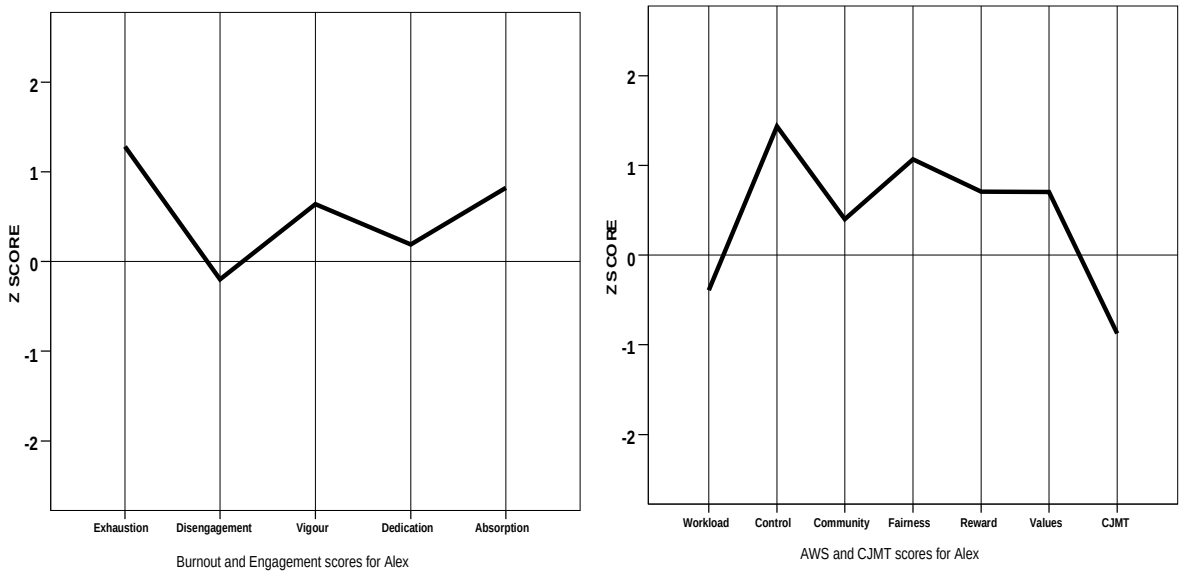


Figure 8.5. Alex's scores on OLBI and UWES (left), AWS and CJMT (right) variables.

In relation to his OLBI scores, which indicated he was suffering exhaustion, Alex asked for the time of the previous year that the survey had been completed:

> *Alex*. I had just been on a 75-80 hr per week type project, 7 day per week type stuff. I had just started to work here and then we decided that we needed to sell our house! So I guess you could say we were copping it from all directions. So I guess you could say you could throw that up at least 1 point across the board there or maybe 1½ points. That's just an anecdotal sort of assessment.
> *Interviewer*. What about burnout, perhaps down a bit now?
> *Alex*. No, I'd probably still say that would be similar. I'm acutely aware of the need at Christmas time to have four weeks at home and just do nothing, to have a long break and rest.

Alex indicated that the thing he most enjoyed about his work was:

> Dealing with people and the high level of autonomy… I pretty much run my own race within very broad parameters, yeah; I prefer to work that way. I don't like to be in a situation where every minute is monitored or controlled by someone else.

While Alex appreciates his present work situation, he would actively seek other work if it was sufficiently challenging:

> In the past I've done project work. So the thing is the challenge. You can have something put in front of you "go build that and deliver it by this date, for this much money". So the challenge is to take on the challenges to be met and overcome until the job is what we call 'flat lining' - becomes the same type of thing where there are not any peaks left to climb on and that's when I would probably start to look around. I'm certainly mercenary with money, so I'm driven by the dollar. Mercenary with money would require challenge as well; otherwise being mercenary would be boring.

Alex has been working for about 20 years. The main difference he sees in his present working life is:

> That IT [*Information Technology*] has resulted in a 'now' culture; people aren't willing to wait and indeed we are all addicted to email. And the expectation is – you know people review their emails very regularly and respond very quickly. And people tend to get frustrated if they are not getting real time responses, you know within half an hour or hour of sending an email. Some people in organisations I work for receive upwards of 150 emails per day. That's a huge number. So that leads to a real time response expectation.

He made a similar comment about mobile phones:

> I try not to be a slave to the mobile phone. But the project where I was previously, if you weren't accessible, sometimes things would stop on the job. So it was noticed very quickly if you were or weren't accessible. So they tried to justify it by providing a small site allowance and a small shift allowance, something like around $20,000's worth. But it really didn't justify the hours and availability, you know, you could be woken up at night and all that sort of thing.

While Figure 8.5 shows Alex's result for the CJMT as low, his responses to the original management trustworthiness variables, as suggested by Mayer and Davis (1999), provided a great deal more information. Alex indicated slight agreement that his management was able, slight disagreement as to their benevolence and emphatic disagreement in regard to their integrity. He endorsed this result and commented:

> *Alex*. 'Scape goating' is what happens. No matter what you do, companies survive because people perform. The drive in any company is the dollar, the evil dollar, there are other things that are important, such as staff turnover, the quality of the work that is being delivered, but at the end of the day it's about making a buck and if people are not able to deliver, those people will get pushed aside. There is no room for passengers in this sort of organisation. I've seen cases where people are able to shift the blame to others, and I find that annoying.
> *Interviewer*. You also have the case where the project looks initially successful, has all the 'bells and whistles' and when the project team moves on….
> *Alex*. It's not all it's 'cracked up' to be. I've been on those sorts of jobs. BDMs [*business development managers*] make huge promises, then the team looks at it and it can't be delivered. The BDM has walked away and done their job, they're going to collect their bonus because they've delivered the project to the company. But when it comes time to do the job, you realise that it can't be done, either in the timeframe or in the way

that they intend that it will be done. Ultimately what happens is that you burn bridges. Customers, experience this, and they won't work with you, but it won't be the BDM that gets the blame.

Nick. Nick is a photo journalist who belongs to the 35-39 year age group. He works for a large multinational media company in a major metropolitan centre and reports that he works 46 hours per week. His responses on study variables are presented in Figure 8.6.

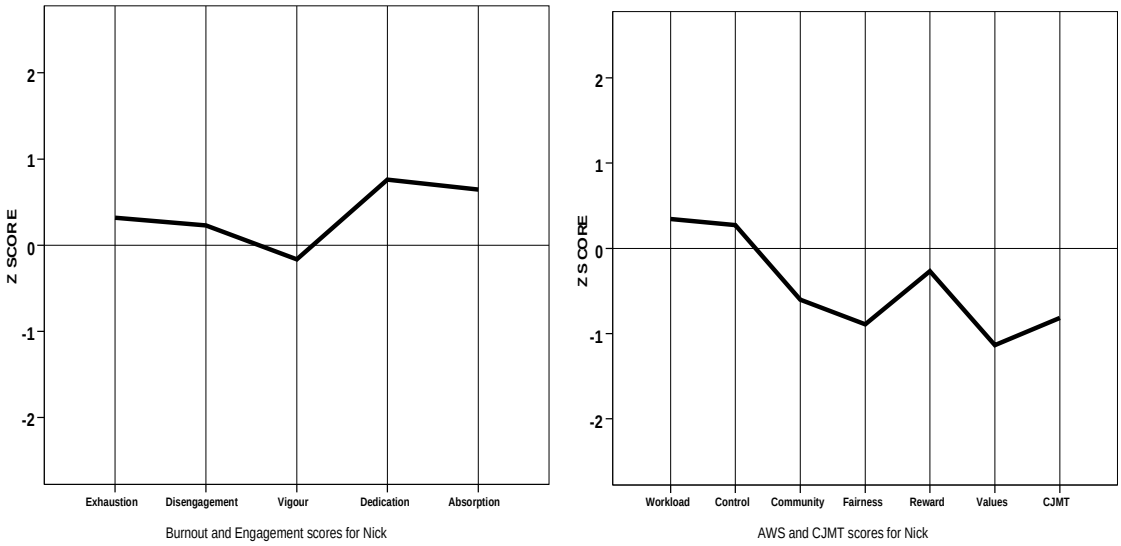


Figure 8.6. Nick's scores on OLBI and UWES (left), AWS and CJMT (right) variables.

Nick's profile reveals that he experiences both burnout and engagement in his work situation, this is confirmed in his responses to the AWS with matches in workload and control variables and mismatches in community, fairness, reward and values variables, and his negative response to the CJMT variable. In his interview he endorsed these findings with a slight qualification:

Nick. Um probably it varies a little bit from last year, I have had a change of boss in [*name of another metropolitan city*], so that has made a big

> difference, he is a lot better, so I'd say that that's probably improved. But in general I'd say that it is still very much a part of the organisation.
> *Interviewer*. So it's systemic, rather than an individual thing?
> *Nick*. I don't know if you are aware but the [*name of industrial union*] did a survey of people who work within [*name of company*]. It was pretty bad actually as to what people said, so I'd think you would find that it's across the board.

Although Nick has been working in his career almost 20 years and has 'never thought of doing anything else', he feels that he has reached a critical point of tolerance for the 'unreasonable' nature of management decisions in his company. "It's a company that is built on fear. That's always been their corporate culture. They are a vindictive company and if you are willing to stand up and speak out, you get cut off immediately". According to Nick:

> I still enjoy what I'm doing, being a photographer and that, that's no problem … it's a big company, it's a multinational company. It should be steeped in all this managerial stuff, but it's not, it claims that it is, but it's not. They just don't train their managers at all well, and [*the company*] chooses people who they know who are easy to… um, do their bidding basically. That's surely got to cost them money as well and I'm sure it does. It must, by the amount of people that have said, "I've got to get out of the industry", just by their experience alone, it would be worth …um priceless. And people have just left, they've walked away, they just say, "I'm not going to work for this crap anymore, I'll go and work or someone else who knows what they are doing".

8.2.1 Discussion of insights from The Under Pressure Group interviews

All four interviewees from The Under Pressure Group indicated that they were dedicated and absorbed in their work, and that they found it intrinsically interesting

and worthwhile. However, all reported levels of exhaustion that threatened their engagement with their work and signaled that they were at serious risk of developing more severe burnout (Sonnentag, 2005). In most cases this could be attributed to exhaustion from workload, and/or personal incompatibility with the human dynamics being played out within their place of work. This is reflected in the path analysis diagram for The Under Pressure Group (Figure 7.3) in that mismatch in personal and organisational values has a direct relationship with both exhaustion and disengagement. Examination of the means for the AWS variables for The Under Pressure Group (Table 6.6) reveals that although the values variable was endorsed by respondents (z =.36), control, reward and community received only modest endorsement (z scores between .16 and .17) and respondents were ambivalent about fairness (z = .06). Given that these variables have a demonstrated interrelationship (Figure 7.8), it is suggested that issues in regard to fairness and support from management contributed to the exhaustion experience reported by these otherwise extremely positive respondents.

The other source of exhaustion within The Under Pressure Group is workload (see Figure 7.3). This was also mentioned by respondents as a factor in their exhaustion. Nevertheless, consistent with Langford, Parks and Metcalfe (2006), although workload contributes to exhaustion, it does not appear that it is the major source of distress for these individuals, because they also find their work energising. Therefore it is suggested that distress reported by people in The Under Pressure Group is related to their experience of a combination of heavy workload with unfair and inconsiderate demands and decisions (Ed); or overt lack of management integrity (Alex and Nick). Within the path analysis process this suggestion was reinforced by

continued model fit when the CJMT variable was substituted for the fairness variable, thereby suggesting that lack of management trustworthiness was a contributing factor to respondents' experiences of exhaustion and disengagement.

Where does work engagement come from?

A feature of the path analysis for The Under Pressure Group (Figure 7.3), relevant to the experiences of the four interviewees in this cluster, is the lack of connection between the AWS variables and the engagement variables of vigour, dedication and absorption. Unlike respondents from The Empowered Group (Figure 7.2), there is no significant link between community and vigour or values and dedication. However The Under Pressure Group did indicate agreement with all UWES variables (see Table 6.7 and Figure 6.2). Interviewees in this group indicated that their energy to do their job came from the work itself: in Ed's case it was the 'magic' of the classroom; Alex mentioned the importance of challenge and autonomy; Nick enjoys his photography and cannot think of doing anything else, and by her endorsement of the UWES dedication variable, Susan indicated that she finds her work full of meaning and purpose. This is consistent with Deci and Ryan's (1987) explanation of intrinsic motivation for behaviour: "Intrinsically motivated behavior is by definition self-determined. It is done freely for the inherent satisfactions associated with certain activities and with undertaking optimal challenges" (p.1034).

According to Deci and Ryan (1987) choice plays an important role in people's attitudes to their work. This was demonstrated in the interviews with Alex and Susan, who both indicated that dissatisfaction with previous work environments has led to their decision to move on and find alternative work. In Susan's case, the new position provides her with the time resources she needs to fulfil her role as a VET

coordinator adequately. Whereas Alex is prepared to leave work projects that have ‘flat lined’ and move on to new challenges that pay well. Alex, Susan and Nick have demonstrated that their commitment is to their work, but not necessarily their place of work. Ed (who is committed to the religious organisation that runs his school) is in conflict because the actions of his school administration are, in his view, inconsistent with their stated values. This provides an example of where organisational identification (Mathieu & Zajac, 1990) can constitute a source of stress for the individual.

It is noted that the path analysis for The Empowered Group demonstrated a direct link from the community (AWS) variable to vigour (UWES) (see Figure, 7.1) suggesting that that the most positive respondents in the current research were energised by the support and rewards they found in workplace inter relationships. By contrast the Under Pressure Group (see Figure 7.3) does not report such support. It is noted that interviewees from this group were positive, but the reservations expressed by Ed, Alex and Nick were in relation to management ability, benevolence and integrity, which is consistent with the work of Mayer and Davis (1999), Sarros and Sarros (1992) and Blasé and Blasé (1997).

The psychological contract

There were signs in Ed’s interview that he struggles with the choice he has made to remain at his present school and with aspects of his teaching career. He is uncomfortable with the school’s decision to impose multilaterally another layer of paperwork on all classroom preparation and marking, and with management decisions and practices that he considers are unfair. Ed is extremely committed to his work and to the values espoused by the religious school in which he teaches. Yet

from his perspective, there is an incongruence between the stated and practiced values of his organisation that result in inconsiderate and unfair processes within the school and that impact severely on the wellbeing of the teachers, and in turn, this must impact on students. It is therefore apparent that Ed's experience of dissonance in values is a source of personal distress, as is his sense of having little autonomy in his work environment.

Unlike Ed, Alex expresses a view that he does not expect his organisation to be driven by anything but economic imperatives. Yet he is also affected by incongruence of values, in this case, his own personal value of integrity and his regret that this is not practiced by the managements that he has experienced. It is unlikely that Alex would express this expectation because he stated a view indicating his acceptance that his industry is dominated by economic imperatives. However, the very fact he is 'extremely annoyed' by what he calls 'scapegoating' would indicate that management integrity is a part of his psychological contract. This is reminiscent of Miller's (2001) observation that people may not always be able to articulate what they expect within their psychological contract with their organisation, yet they know when their "sense of 'rightness' has been violated" (p. 532). Susan, who currently enjoys a position where she was able to negotiate her own work conditions, is particularly mindful of a previous experience of management that was not trustworthy. Her comment, "if this school stays the way it is, I will stay here", suggests that her continued commitment to the school is contingent upon management's maintenance of the school's current supportive culture.

8.3 The Unengaged Group

The pattern of responses demonstrated by respondents belonging to The Unengaged Group (NC3a and NC3b) indicated that while the engagement variables of vigour (z = .13) and dedication (z = -.04) were higher than the burnout variables of disengagement (z = -.19) and exhaustion (z = -.64) the level of endorsement for these positive variables was only marginal or ambivalent. The remaining UWES variable, absorption (z = -.46), was emphatically dis-endorsed by respondents in The Unengaged Group. The re-visiting of the cluster analysis process found that six people from this group had been interviewed: Roger, Philippa, Laura and Gemma had belonged to original cluster 2, and Amanda and Alan had belonged to original cluster 4.

When attempts were made to analyse material from the interviews from The Unengaged Group it became apparent that there appeared to be two subgroups in this group. This was confirmed with a K-means cluster analysis using the AWS variables and the CJMT variable as defining variable. Further details of this extra statistical analysis were presented in Chapter 6. The two resulting subgroups comprised individuals who belonged to the Match sugbgroup (n = 95) who reported matches of the AWS variables; and those who belonged to Mismatch subgroup (n=63) who recorded mismatches on the AWS variables. Interviewees from The Unengaged Group were distributed between these two subgroups: Match subgroup, Gemma and Philippa; and Mismatch subgroup, Alan, Amanda, Laura and Roger.

8.3.1 The Unengaged Match subgroup

Philippa. Philippa is a high school teacher who is within the 50-54 year age group; she reported that she works 50 hours per week. Her responses on the OLBI, UWES,

AWS and the CJMT may be found in Figure 8.7. It is of interest that while Philippa reported reduced engagement with her work, her scores for the AWS variables and the CJMT variable were favourable. Philippa reported that at the time she completed the survey she was "considering whether to undertake a role in curriculum leadership within the school. I was not certain that it would be right for me. As of January 2007 I now have that role and am finding that it is most rewarding".

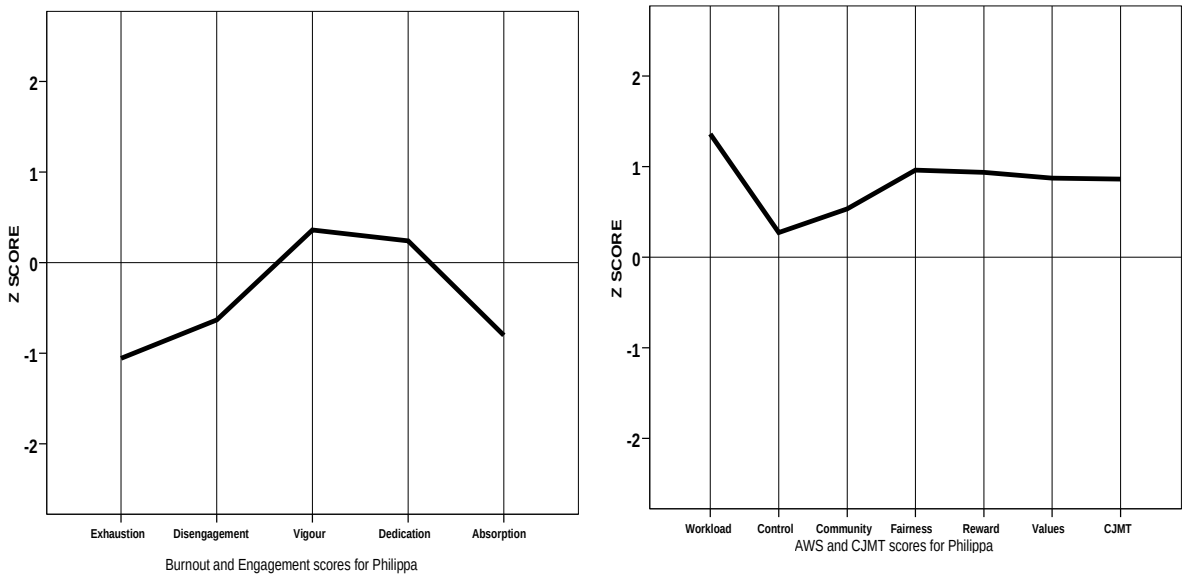


Figure 8.7. Philippa's scores on OLBI and UWES (left), AWS and CJMT (right) variables.

Philppa's inclusion in The Unengaged Group is contingent upon her less than enthusiastic endorsement of the UWES variables of dedication, vigour and absorption. She explains this:

> When I first started working as a teacher there was a much greater sense of freedom in the job and considerably less paper work. There was a lesser concern with accountability (though not with responsibility) and teachers generally took greater risks in what they did and in how they related to students. Now everything you do is fraught with risk assessments, and consciousness of danger/risk and all sorts of stuff.

> When I first started teaching too there was a higher regard given in the wider community to teaching as a career/occupation/profession. One was less likely to be put through the third degree by parents in an aggressive kind of way which can happen today. One's opinion was highly regarded and held in some esteem. What was also true at the time was that teachers often came from among the brightest student…that is no longer true.

Nevertheless, Philippa is happy in her work and has no complaints about the team of people she works with and feels that her teaching is rewarding and fulfilling:

> The positive thing about my work at present is that I am in a school which has shown great respect for the things I have done previously. I am working with a group of teachers who generally are willing to give much more than is necessarily required. I am given a great deal of freedom to do things my way. I find that in this school I am acknowledged for whatever I do. So much of what is positive at present comes from the nature of the particular school and the fact that it operates in a different kind of system than others in which I have worked. I have one class in particular in which I have been allowed to follow the same group of students through for three years. This is unusual in Secondary. It is wonderful to see the growth and development of the students.

Therefore, even though Philippa has been categorised within The Unengaged Group, she is far from 'unengaged' in her work and is appreciative that she has been able to follow the same group of students for a number of years. She has respect for her school's administration, the processes by which policy is developed and has no wish to seek other work:

> The school I am working at is currently in the process of developing a specific equal opportunity policy. We are considering/debating whether such a policy needs to be on an affirmative action basis or on a truly

inclusive basis. All staff has been encouraged to contribute to the development of this policy. All positions within the school are offered firstly to those currently on staff. I think that the sense of fairness and staff development in this school is demonstrated most eloquently by the fact that no-one wants to leave and everyone who does, wants to get back! There is also a push for staff to share resources and to work collegially. This is quite strong already but is being further encouraged. I like where I am. It is busy and sometimes hectic but there is a very strong team sense which makes it all a bit easier.

Gemma. Gemma (age group 40-44 years) is a journalist who has decided to work part time. She currently works 34 hours per week. Figure 8.8 shows Gemma's responses to study variables.

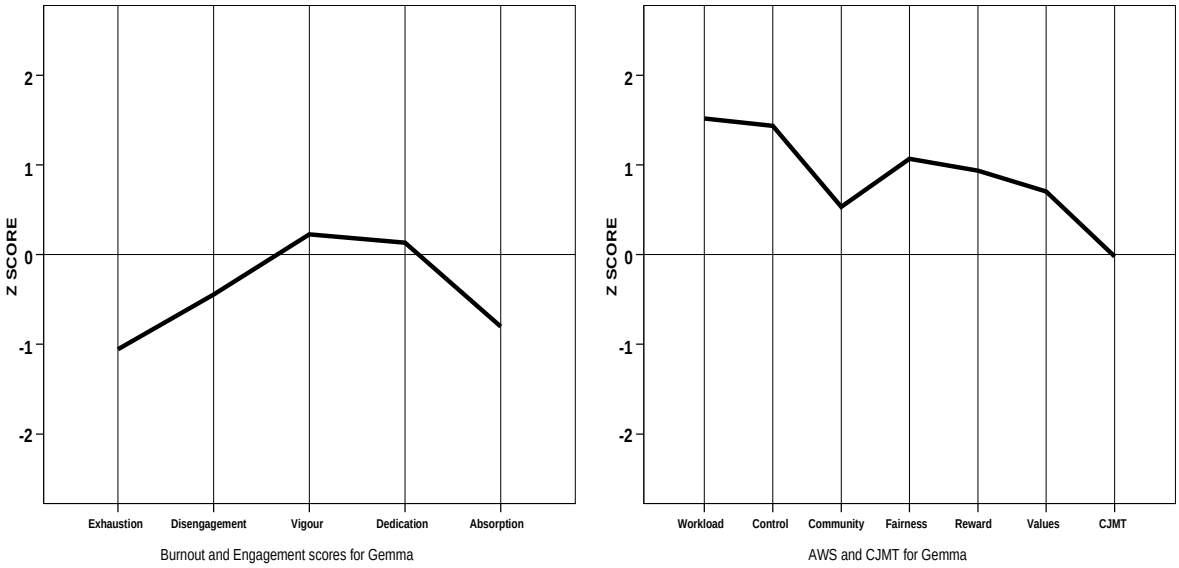


Figure 8.8. Gemma's scores on OLBI and UWES (left), AWS and CJMT (right) variables.

Gemma's OLBI and UWES responses indicate that she is not experiencing burnout, but she is not particularly engaged in her work either, yet her responses on the AWS indicate a number of matches with her work environment. When asked about this

Gemma responded with a general comment that she had made a conscious choice in terms of a balanced quality of life to work part time after coming to a personal realisation that she was suffering burnout several years previously:

> Yep, I work 3 days per week, Thursday, Friday and Monday. And the other days I work freelance for other organisations or I write, at the moment I'm working on a play. So then I feel like I've got something of my own, so it's not all just churning it out for fish and chip wrappers.

Gemma further expanded on her reduced engagement in her chosen career:

> It feels like you're just feeding a furnace! It's hard on the spirit. I've been a journalist for 23 years, and I think it's darker now than it used to be, the focus is on human misery and failure and I think that is hard to do. At the time when I came to burnout, I just thought, "I haven't had a positive thought in years". Whereas now I can do heavy subjects, but I also talk to the people who are trying to do something about it. There's a much better balance than just misery and disaster. The kind of work that people do as a journalist is just criticising and finding fault basically eight hours a day, without ever being asked to come up with any solutions.

When discussing her now more favourable work environment Gemma revealed that she now works on a casual basis for a weekly metropolitan paper that requires more 'upbeat' and human interest stories.

> I work pretty autonomously nowadays if I'm asked to do so. I'm pretty fast and I use my time well, so I have minimum supervision, and I structure my own day. Like, I don't have pressure from someone standing over me. I've got all that I need.

However the ‘down side’ to this is lack of job security:

> I’ve got such an insecure set up so I do have panic attacks about insecurity. So it worries me what would happen if no more casuals were employed, I could be told, “don’t come in next week”. I could possibly think about that a bit more. That’s really the only thing. The ideal thing would be to be put on permanent part time, but I am reasonably expensive for a staff budget. I would like another kind of contract that treats staff better. But what I like about it is the flexibility…. if I have a Monday off, I can do a Tuesday instead kind of thing.

Gemma further expanded on the impact on her personal values of working in an industry that from her point of view focuses on negativity:

> *Gemma*. What is soul destroying about working in the industry is that you are writing material that is not entirely the truth, just the bad stuff. I started to have a real issue with that because I thought even then ten years ago, that it was really leading to community disengagement. Because every time you pick up a paper, it was all so horrendous, all so unfixable, and lots of frightful things happening in quiet suburban homes and all of that kind of thing. If you’re not giving any lighter material, people stop trying because they don’t think that anyone is out there doing anything about it. So no one is out there telling the truth about society in that. I just think journalistic standards have gone down the drain.

Discussion of insights from The Match subgroup interviews

The hypothesis of the current research, that matches on the areas of worklife and trustworthy managements would predict worker engagement, was not supported in this subgroup of The Unengaged Group (NC3a). The Unengaged Group demonstrated reduced engagement compared to the previous two clusters (see Figure 6.2 and Table 6.6). In addition, unlike The Under Pressure Group, The Unengaged

Group respondents disagreed that they were experiencing exhaustion, and neither did they report that they were experiencing disengagement.

Gemma and Philippa both indicated that their reduced engagement with the work was related to the development of disenchantment with their chosen careers. Gemma clearly expressed a personal conflict with her perception of practiced ethical standards of her chosen profession of journalism, yet reported a match on values in her worklife. Philippa also articulated a clear sense that the current reality of high school teachers' lives is quite different to the reality she has experienced in the past (interestingly, a similar point was made by Susan in The Under Pressure Group), which also translates to dissonance in values. Therefore it is posited that Philippa and Gemma provide evidence that the psychological contract is wider than the immediate work environment, furthermore, that it incorporates professional and ethical standards and practices. While both Gemma and Philippa have work environments that are congenial, as indicated by matches in the AWS and their positive comments in regard to their work, this is not enough to provide them with a sense of engagement in their chosen careers. This strikes an interesting contrast with the previous group, The Under Pressure Group, who indicated that they were engaged in their work despite mismatches on many AWS variables.

It is posited that the positive experience with their work environments, reported by Gemma and Philippa, provides them with some protection against the development of burnout. Gemma, having suffered burnout in the past, has strategically engineered her work environment to prevent this happening again. Like Kate (new cluster one) she has chosen to work as a freelance journalist (which is more precarious in terms of job security), because this work provides her with

autonomy and choice (control). Philippa would also seem to have come to terms with what she sees as the unsatisfactory nature of reality in her professional life and appreciates the support and recognition she receives in her present position. However, these favourable aspects of their working lives do not appear to be sufficient for Gemma and Philippa to report engagement in their work.

While only two of the six interviewees from The Unengaged Group belonged to Match subgroup (n = 95) demonstrating matches on the AWS variables and agreement with the CJMT variable, it is noted that this sub-group represented the larger group of respondents from The Unengaged Group. Consequently the means for AWS and CJMT variables for The Unengaged Group were comparable to those clusters that demonstrated more support for the UWES variables (The Empowered Group and The Under Pressure Group) (see Figure 6.2). When qualitative responses from survey respondents belonging to this subgroup were examined, it was found that Gemma and Philippa's experience reflects survey comments from others in the subgroup. Two examples of comments from survey respondents are:

> I really want to do a better job at the coal face (in the classroom) but much time is spent in 'administrivia'. 'Extra' classes interfere with what I want to do or have planned to do and can get quite frustrating. In summary; "give me my time back and get a great job instead of a good one" (*male, high school teacher, 45-49 yrs*).

> My faith in our education system is the only thing that has deteriorated. It has seriously affected my enthusiasm. Inconsistencies with the [*state studies authority*] have caused me to opt out of being HOD [*head of department*] after 10 years. I was on panel for 22 years, 10 as panel chairman. I find it hard to agree with any or all decisions these days.

> Running on a shoestring budget as they are, I have lost faith in directions syllabuses are making and in competency of panels. I am FAR less stressed these days (*male, high school teacher 55-59 years*).

Both of these respondents have indicated instances of role conflict that has, in the first instance, diverted the respondent's attention from his core business of teaching, and in the second instance, been resolved by a diminution of commitment to the profession. It is therefore noted that Gemma's and Philippa's interviews are consistent with comments of other survey respondents from this subgroup, and suggests that the reduction of engagement seen in these respondents comes from a sense that the reality of their experience of their chosen profession does not match the expectations they previously held. Further it is also noted that while The Unengaged Group did not agree they were disengaged (z = -.19), their disagreement with this variable was less emphatic than that indicated for exhaustion (z = -.64).

Therefore it is suggested that the favourable work environment enjoyed by respondents in this subgroup (as indicated by matches on the AWS variables and agreement with the CJMT variable) may serve as a protective factor against the development of burnout, however as noted, on its own it is not enough to provide an environment whereby people are engaged in their work. These people are also struggling with the reality that their personal expectations in regard to ethics and direction of their careers is inconsistent with their experienced reality. Therefore it is posited that they are experiencing a breakdown in the psychological contract that is only partially mediated by matches on the AWS variables and a sense that their managements are trustworthy.

8.3.2 The Unengaged Mismatch subgroup

In contrast to the previous subgroup, the Mismatch subgroup demonstrated mismatches on many of the AWS variables and the CJMT variable. Yet they did not report the experience of burnout, in spite of reduced engagement in their work.

Roger. Roger is a senior psychologist (age group 30-34 years) who works as head of his department in a correctional centre in a regional area. Roger reports that he works 46 hours per week, his responses on the study variables may be found in Figure 8.9.

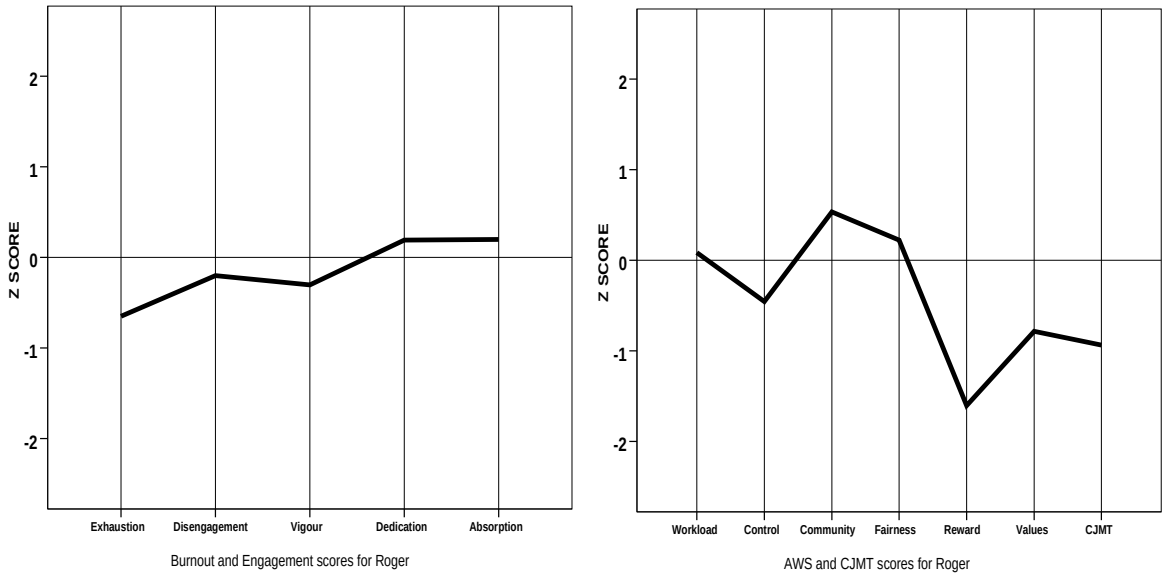


Figure 8.9. Roger's scores on OLBI and UWES (left), AWS and CJMT (right) variables.

The general theme running through Roger's interview was that he was frustrated and challenged by the fact that most of the decisions that affect his work conditions, including numbers of staff and programs he is able to run, are made at government department level in a metropolitan centre far distant from the correctional centre where he works. In spite of this he finds his work rewarding on a number of levels. The main ones being; the camaraderie between the team of mental health workers who work together, "it's a close knit team, like a family, we 'blue' [*disagree*]

sometimes; but we get on and trust each other", and the satisfaction of watching probationary psychologists develop professionally. He also takes pride in the fact that, at the local level, his team "does a good job". However, he also believes that, in view of their budget and staffing constraints "we are doing ourselves a disservice in one respect"; because the good work they do, means that the limited funds available at department level are allocated elsewhere.

Roger had three main criticisms of the way policy was made in correctional services. The first one was that government policy in regard to mental health services in correctional centres was written by people who lacked breadth and depth of experience in working in the system:

> There are people who are working in the head office in Brisbane who don't even have half the applied experience that I do, who basically spend 18 months working in a correctional centre. Psychologists are poorly paid, treated so poorly in this department overall, so psychologists don't hang around for very long in this department. Once they have finished their internship and have finished their conditional registration and get their full registration, they leave the department….they head off to head office – it gets very frustrating.

The second criticism Roger had was in regard to his perceived lack of recognition and support of the work done by psychologists within the department:

> When it comes to a department level, I am very despondent, very cynical and quite disappointed to be honest with you about the way the department as whole, coming from the top, treat and recognise psychologists – we are extremely undervalued. And when you think of the risks that are associated with the psychologist practicing in a correction centre – where, at the moment we have close to 600 prisoners

> and 480 of them are indigenous and about 300 of those have a previous self harm, some are here for extremely violent and serious offences…..Yeah I think its just disgraceful, the lack of recognition for psychs [*sic*] in the department.

Roger's third criticism stemmed from a perception that the current situation in regard to prisoners' mental health and the work that he does, results from a general departmental failure to address fundamental issues and a tendency to be reactive, rather than proactive:

> We have two suicide watch cells here at the prison; one of those observation rooms doesn't even have a toilet in it. The prisoner on suicide watch has to defecate and urinate into a bed pan. I've been asking for better facilities for ten years now. Every year there has been an excuse. We are the most poorly resourced centre in the state, we have high risk prisoners, due to the number of indigenous prisoners – because we do our job so well, we work so hard, we have below the national rate of suicides, deaths in custody. In the time I've been here we've had one indigenous death in custody, so my guys do a very good job of screening and providing interventions and management of suicidal people. But because we do a good job – we 'shoot ourselves in the foot'. It we had more deaths in custody we would have new observation rooms and better facilities.

Amanda. Amanda belongs to the 40-44 year age group and at the time she completed the survey worked part time as a psychologist (34 hours per week). By the time the interview took place however, Amada was in the process of establishing her own private practice. Her comments took the form of a brief email communication.

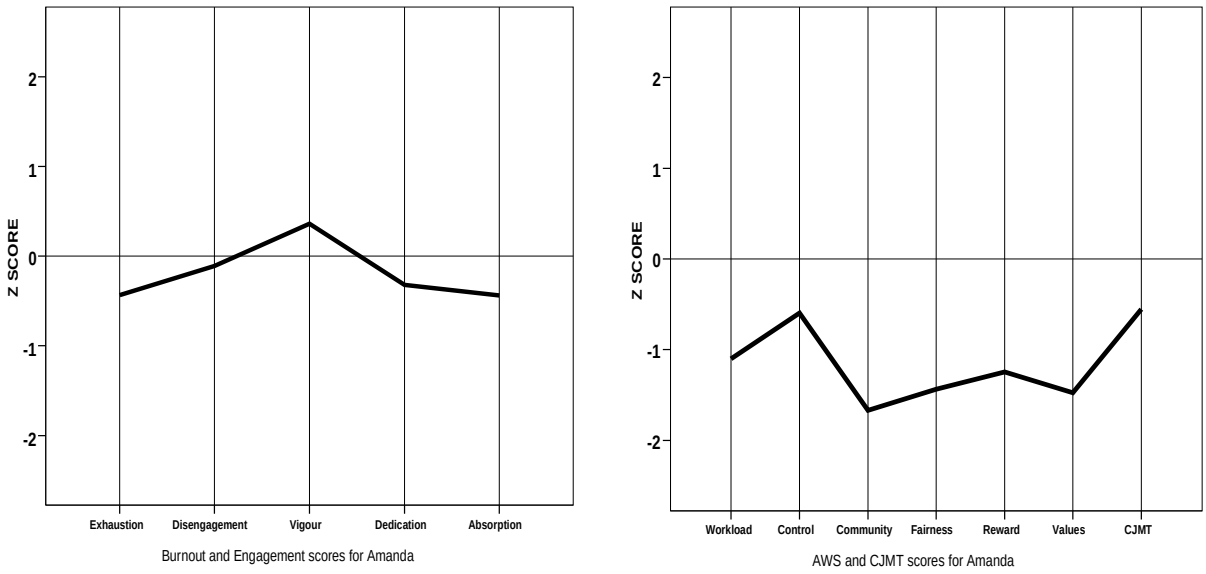


Figure 8.10. Amanda's scores on OLBI and UWES (left), AWS and CJMT (right) variables.

Amanda indicated that she was committed to her work and "almost 100% of positive regard for my work comes from a sense of doing something that is really worthwhile". However: "I have a lot of reservations about the aspect of my job which is controlled by a national body and have left this job because of those reservations". This lack of support from the national body and limited support from her state government department meant that in her previous job she felt that she was working in isolation, despite feedback from the people she helped and colleagues that she was doing a good job.

Amanda explained that she expected from work as a psychologist to be "working in a supportive team environment with multi disciplinary professionals; regular formal and informal debriefings and peer support; and personal satisfaction in working in my area of specialization". However her experience of her work in the government department that was her previous employer was a quite different story:

> The work environment was very political. At times staff members were completely unaware that there is an issue concerning them which could influence their future employment. It is very stressful working in such an environment with a high client load as we are working with a very fragile and highly traumatized population who may only give therapy one chance – if we do not meet the intangible standards of the employer (National) and do not get our contracts renewed then we risk 'abandoning' the client due to issues beyond our control (active client files are closed if handover isn't completed by a set date, leaving them expecting a call from their new therapists which never comes!). It is very frustrating and concerning due to the high suicide rate in our client group. I have actually seen this happen – the reason being it made the Centre's books look good because of the higher number of 'completed' cases which in fact were arbitrarily closed active files!

Laura. At the time she participated in the survey Laura was a high school home economics teacher with a position of added responsibility (PAR) who reported that she worked 70 hours per week. However she resigned from her position at the end of 2006, and by the time of her interview was working 40 hours per week as a bank teller. Laura's age fell within the 30-34 year age group, her scores on study variables may be found in Figure 8.11.

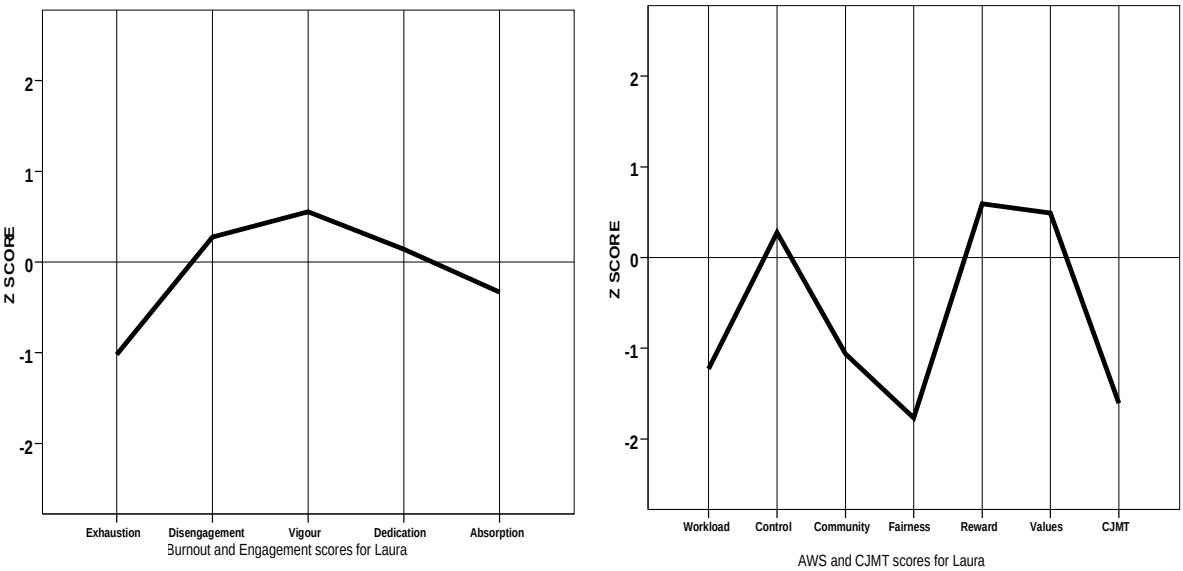


Figure 8.11. Laura's scores on OLBI and UWES (left), AWS and CJMT (right) variables.

Laura explained that the circumstances under which she resigned from her school, were acrimonious and she was unable to provide more than basic details of these because, "I was told to keep my mouth shut" under the threat of legal action. However, she did provide one anecdote (not to do with the circumstances that led to her resignation), that explained some of the mismatches on her AWS and CJMT profile. As home economics teacher she was often expected to cater for special guests at the school:

> *Laura.* I was also being asked to cater for special guests that came to the school...I catered like this seven times in the last six months I was at the school.
> *Interviewer*. That catering wasn't paid for in terms of your own time?
> *Laura.* Yeah, it's all 'love' – and there's another thing. Last year, we won the [*name of region*] home economics award. We had to go to [*name of city 150 kilometres away*] for the awards – I went to [*name of city*] on the Friday afternoon, in the school bus with the class. Prior to that, for the whole day on Friday, I was doing food preparation with the kids for a

> Theatre Restaurant scheduled on the Saturday night for 210 people. I finally got home from [*name of city*] at 2am Saturday. I was back at school at 9am, and finally home at 3am on Sunday. I said to the principal at 2.30 am Sunday when we were locking up, that I would be in a little bit late on Monday morning, because I needed to go shopping for the next event that we were catering for (we had to 'do' speech night on the Wednesday night). I said to him, "I need to go and shop for the supplies to prepare for speech night on Wednesday night- so will be late on Monday morning". I had to do it that way, because we didn't have the fridge space to store everything for the two events.
> His response was, "You will be here at 8.30 am Monday".

By contrast her present employment provides her with time for a personal life and a completely different working environment. When asked to supply some specific examples of what was different in her new job, Laura replied:

> You are being told what is going on; you are kept in the loop all the time. If something has happened that you need to seek clarification from a member of the leadership team, you are informed as to what is going on, you don't get "I can't help you". You don't need it on a daily basis, but to actually be told once a week, or once a fortnight that you are doing a good job – it just helps you as an employee; it just gives you a little bit of a boost. Its like, "wow, he is noticing what I have been doing", it's actually a benefit.

Alan. At the time he completed the survey Alan was working 70 hours per week in the television industry as a lawyer/journalist. He is 60 years old. Alan's profile on the study variables appears in Figure 8.12 and indicates that he was experiencing exhaustion, but remained dedicated, despite depletion in vigour and absorption,

mismatches on all areas of worklife and a sense that his management was not trustworthy.

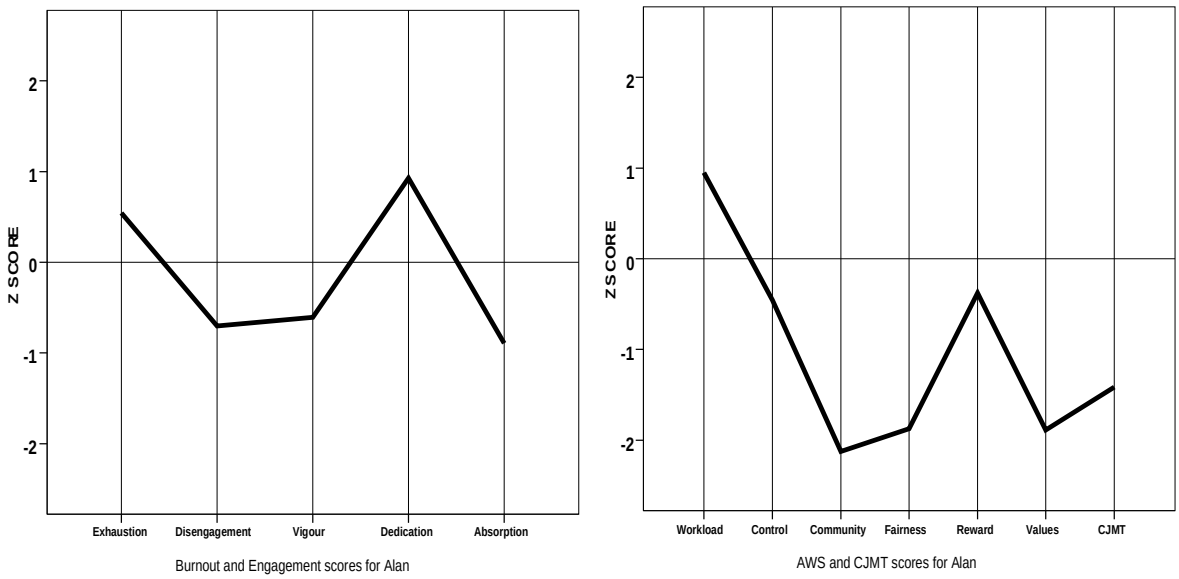


Figure 8.12. Alan's scores on OLBI and UWES (left) AWS and CJMT (right) variables.

Alan began by explaining that while he expressed a great deal of dissatisfaction with his job in the television industry, he had indeed derived a sense of meaning and fulfillment from his work:

> There were some positive aspects of my work that would not have been obvious to my employers, and indeed the casual observer….and that was basically the personal satisfaction of knowing that I had done a good job that day, or helped someone, and I had done something that benefited the community. The same applies even more so in the new role I have with the [*name of state*] police.

However he indicated that he may have been a ‘tad macho’ with burnout related responses in the survey, and that he had experienced serious burnout leading to a major stress induced illness that threatened his life and his personal relationships:

> Most of my time at both [*names of two television channels and city*] I felt badly used, abused, and discriminated against to the point I suffered a medically documented stress related heart attack. Initially I put it all down to what I called, “the remote area syndrome”.... where federal industrial awards were simply ignored on the grounds that employees in [*name of state*] do not have alternative career opportunities. “You are lucky to have a job at all" was the management's response to complaints about forced unpaid overtime etc. I DID lose interest in what I was doing and why I was doing it, I found it a daily struggle to force myself to actually go to work every day, to the point where I was so apprehensive that I would sit in my car until someone else arrived so I could enter the newsroom in another person's company. I became overtly defensive and uncooperative at times when I believed I was being ordered to do something unethical or not in the public interest. That would create further problems, exacerbating the situation.
>
> I became extremely hard to live with at home and I believe my relationship with my wife and children has been permanently damaged. I have not been able to experience sexual desire since the heart attack in May 1993. The only thing that's held my family together is what I believe to be our love for each other...we are actually looking forward to our 25th wedding anniversary in July. Twenty of those years have been hell for my wife and I ever since we decided to move to [*name of city*] for a "better lifestyle."

Alan had changed employment in the time between survey completion and the interview:

> Yes, I have left that position, in fact I simply walked away from the industry a couple of months ago…I saw no place for me there at all although the position I held was probably the most strategic and vital roles in the organization. I have always believed that no-one is irreplaceable in any work place - but this one has been an eye opener - my phone hasn't stopped since I left. Mostly calls from former colleagues half heartedly wanting me to go back - or from my child-replacement (I bet you ask about that terminology) wanting help and direction.
> The [*name of state*] Police Commissioner 'headhunted' me late last year saying things like, "You don't often get offered a new career at 60 Alan" I now work for him as the strategic projects officer for the [*name of state*] police, where I use my legal/journalistic skills for the greater community good.

Alan was asked to comment on his survey comment which was: "there is no equity in my organisation. It's a 'jobs for the boys, toxic workplace that openly practices various levels of discrimination and workplace bullying". His reply was:

> When I look at it now I believe that comment was a gross understatement. The situation grew considerably so bad that I really believed (paranoia?) that they were trying to make my position so untenable that I would have to leave. I was a senior journalist on what they regarded as a high salary (about $73,000 per year) and they were replacing everyone that left with 'children', some just fresh out of school. I recall one situation where I was assigned to cover a remote murder case with a cameraman who was too young to have a drivers' license.
>
> In my new position the Police Commissioner actually apologised for the 'low' pay rate he was offering me (I couldn't keep a straight face - $85,000 and other perks). There are other people at my former workplace

[*name and place of television channel*] who are beginning to suffer as I was.

Discussion of insights from the Mismatch subgroup interviews

Unlike the first subgroup of The Unengaged Group who reported matches in the AWS variables and agreement with the CJMT variable, Roger, Amanda, Laura and Alan reported mismatches on some or all of the AWS variables and disagreement with the CJMT variable. All provided a sense that they believed that what they were doing was worthwhile, however in the case of Roger, Amanda and Alan, decisions that affected them were being made at 'arm's length' by people who appeared to have no knowledge of, or indeed interest in, the consequences of those decisions on the capacity of these interviewees to do their jobs to the best of their ability. While this is reminiscent of the previous subgroup, the difference is found in the reported experience of mismatch with the areas of worklife.

Roger, Amanda and Alan expressed the belief that their job is meaningful and worthwhile, however, consistent with the job demands, resources model (JD-R) (Bakker & Demerouti, 2007; Bakker, Demerouti & Verbeke, 2004), they are not provided with the necessary resources to engage in their career successfully and execute their job. For example, Roger has a position where he is responsible for the mental health of a large number of prisoners, and, judging by the fact that he has held the position for an extended period of time it is assumed that he is deemed by the authorities to be a competent manager. Yet he is continually denied the resources he needs to run his unit properly. Likewise, Amanda reported less than adequate funding for the psychological services she was providing within a large government agency, which clearly put clients at risk. This lack of vision on the part of authorities

was responsible for Amanda's decision to leave her position and to set up her own business.

Both Laura and Alan reported lack of management support that impacted on their ability to perform their work. Alan admitted that he had been a 'tad macho' when it came to reporting burnout, so it is possible that he has been categorised into the wrong group. It is posited that Laura described the kind of commitment to work that takes maximum energy to sustain, especially when management support is nonexistent. Therefore it is likely that Laura's decision to make such a drastic change in careers (from high school teacher to bank teller) was precipitated by a major burnout crisis that happened between her completion of the survey and her interview. These stories have resonance with those of Roger and Amanda, in that all four interviewees were denied agency in decisions that affected how they did their jobs.

The position of Roger and Amanda resonates with Michie and Williams' (2003) observation that healthcare workers suffer higher rates of distress than non health workers because demands and resources are not balanced (Bakker & Demerouti, 2007). However it is also observed that Laura and Alan were each working in excess of 70 hours per week and believed that the jobs they were engaged in were helping people, they were also in a position defined by an imbalance of demands and resources and suffering the effects of poor management style. All of these are risk factors in the development of psychological ill health (Michie & Williams). The interviews from this subgroup illustrate the sense of meaninglessness, imposition and lack of ownership, which in turn undermines effectiveness (Harris, 2001).

Within this subgroup, only one interviewee (Roger) reported some decision making agency and indicated a match on community (which demonstrated a direct

link with dedication on the path analysis for this subgroup, see Figure 7.5, Appendix D Table D.5). This would suggest that the support Roger experiences in his work community does help to provide him with some, albeit limited, protection against the development of more destructive burnout than the cynicism he acknowledges is a part of his relationship with his work. Amanda, on the other hand, was unable to continue working in a community that she saw as politically driven, and that was incongruent with her own values. Like Laura and Alan, she chose to leave and seek alternative employment.

General comments on The Unengaged Group

While 'unengaged' was applied as a title for this group on the basis of indifferent scores on the UWES variables, it was apparent from these six different stories that the people interviewed for this study were far from unengaged in what they had chosen to do for their careers. They were all professional people and all were involved in performing meaningful and important work that had required years of training and effort to prepare for. With the exception of Philippa, whose marginal UWES were attributed to factors outside her work environment and who was content within her place of work, all interviewees were hampered by systemic failures that had rendered them unable to fulfill their role to the best of their ability. However, in the absence of an obvious event (such as happened in Laura's case in the intervening period between the completing the survey and participating in the interview), this would appear to have had the effect of reducing dedication, vigour and absorption rather than leading directly to the development of burnout.

The pivotal role of the fairness variable with The Unengaged Group

The path analyses reported in Chapter 7 revealed that unlike all other new cluster groups, respondents in both subgroups of The Unengaged Group indicated a significant relationship between fairness and vigour. In the case of the Match subgroup, this relationship was a positive one ($\beta = .43$) (see Figure 7.4), indicating that a match on fairness was energising for individuals in their workplaces. This is consistent with Philippa's comment "I think that the sense of fairness and staff development in this school is demonstrated most eloquently by the fact that no-one wants to leave and everyone who does, wants to get back!"

However, in the case of the Mismatch subgroup the relationship between fairness and vigour was a negative one ($\beta = -.27$) (see Figure 7.5), suggesting that the reported mismatch on fairness might be energising as well. The Mismatch subgroup interviewees (Roger, Amanda, Laura and Alan) are professionals who have considerable experience and have demonstrated commitment to their chosen careers (an example being Laura's anecdote demonstrating that she worked extremely long hours over one weekend providing students with valuable work and community experience). This outstanding commitment in most cases would appear to have gone unrecognised and unacknowledged. Consequently, the individual is left in the position described by the effort-reward imbalance model (Siegrist, 1996), of having expended a great deal of mental and physical energy only to be unrewarded.

The consequent lack of acknowledgment and recognition would be interpreted by respondents as unfair, an example of this is Roger's comment, "When it comes to a department level, I am very despondent, very cynical and quite disappointed to be honest with you about the way the department as whole, coming from the top, treat

and recognise psychologists – we are extremely undervalued". In relation to the reported mismatch on values for this group, unlike all other cluster groups, the fairness construct does not load onto values for the Mismatch subgroup. This would suggest that these respondents find very little in their work environment that nurtures their commitment and that they are in a position where they are at extreme risk of an event (such as happened to Laura and Alan) that will cascade them into experiencing burnout.

8.4 The Burnout Experience 1 Group (NC4)

All three interviewees from The Burnout Experience 1 Group, Robert, Alice and Julie, had belonged to the original cluster four Bu2. This group reported that they were exhausted (z = .97), disengaged (z =.51), and slightly absorbed in their work (z = .13). They disagreed that they were dedicated (z = -.33) and and energised (z = -.73) by their work. Therefore they indicated a clear burnout pattern where individuals were exhausted, felt disengaged and their dedication and vigour was eroded.

Robert. Robert (age group 35-39 years) reported that he worked 50 hours per week at his job as an operations manager in a medium sized tourist adventure business. The pattern of Robert's personal scores on the study variables appear in Figure 8.13 where it can be seen that they are consistent with the general trend for this cluster. Mismatches on four areas of worklife and the CJMT also signal that his experience of his work environment was problematic. Since his participation in the survey Robert has resigned and is now a full time university student, who wishes combining his MBA (Masters of business administration) with a degree in psychology and expand his career focus into organisational psychology.

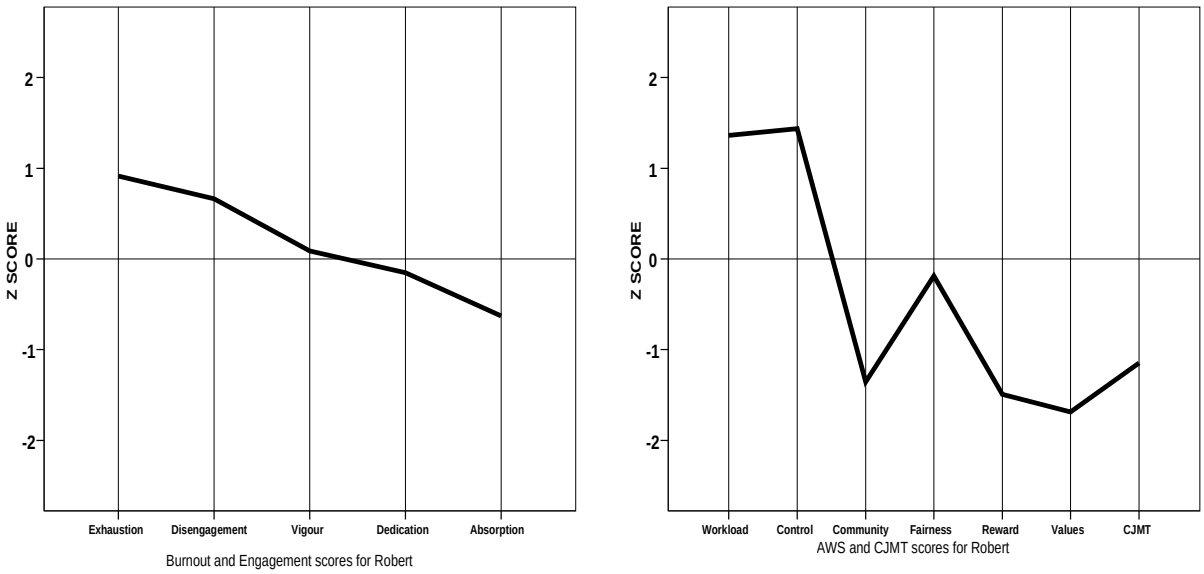


Figure 8.13. Robert's scores on OLBI and UWES (left), AWS and CJMT (right) variables.

Robert, after ten years as an operations manager, has recently left the company he worked for:

> *Robert.* Mainly I guess because we had an awful lot of things happen there that were negative, I was in the rafting industry and a couple of people drowned, and it happened on my watch….. Prior to that happening, I had set up a lot of really good programs and later when finances got tight, after the accident, they were all cut. We were charged by Workplace Health and Safety (WHS). There was no legislation governing this sort of activity, and I had taken the best practice in the world and put it in, you know fortnightly training sessions …. it just got completely ignored in that investigative process, I was really frustrated …with WHS as well as my own management. WHS didn't even look at these training programs….. they were coming out with the mandate "Whenever there is injury or death someone must be prosecuted" and there is an interesting twist in the law where the burden of proof is on the defendant.

> And it wasn't until the appeal, after I had finally left work, two years down the road, we lost the first court case – it was years in the process and finally on the second appeal –my training processes were given a bit of a commendation by the judge and we finally got over it all. But in that process I felt that I hadn't been listened to on a large scale.
> *Interviewer*: So it felt as if everyone in front of you was ducking and you were the one standing there?
> *Robert.* Exactly …Upper management's attitude was, "we haven't got any money and we're going to court anyway and you promised your training program would keep us out of court, so it's your fault"… I felt a bit cheated, you know – I'd done all this work and when it came to it….there was no justice…. So now, as a result of that, the industry has gone back to what it was, and all those changes have gone.

This very unfortunate experience had emphasised Robert's vulnerability within his chosen industry. Not only had the accident exposed the company to close scrutiny from Workplace Health and Safety investigators and subsequent legal action, but Robert found himself in a position where he was unsupported and the programs he had implemented were scrapped, leaving staff with safety training that Robert regarded as inadequate. Robert described his upper management, "one boss is pleasant but weak. The other boss is mean spirited, irrational and evil and over rides the other". Robert explained his choice of the word 'evil' for the second boss in terms of workplace equity:

> The evil boss – would come in with new ideas and mess with the operation having no idea of what happens – we had systems set up for a reason and he would come in and he would always assume the worst, that I had 'jobs for the boys' happening or that I would be scheming to make things easier or whatever, and he would say "Nope we are going to change it and we are going to do it that way". It just wouldn't work, you

> know and I would argue – but never a change or even trying to explain it in terms of benefits etc. He would just think you were deceitful. No trust – so he would go ahead with changes that just weren't practical. I felt undermined in front of the staff – yeah in early days I would try to argue about it, but in later days I was more likely to say – "well too bad", that made me look weak, when these things were wrong, but it wasn't any use… I just gave up and I regret that because I was good at my job and at the end I think I lost respect - I was just saying "Up you, do whatever guys".

Alice. Alice (age group 55-59) works as a financial counselor for a large metropolitan council. She reported that she works 53 hours per week. Her profile on study variables appears in Figure 8.14 and demonstrates a clear burnout pattern with many mismatches on the AWS variables and low confidence in her management's trustworthiness.

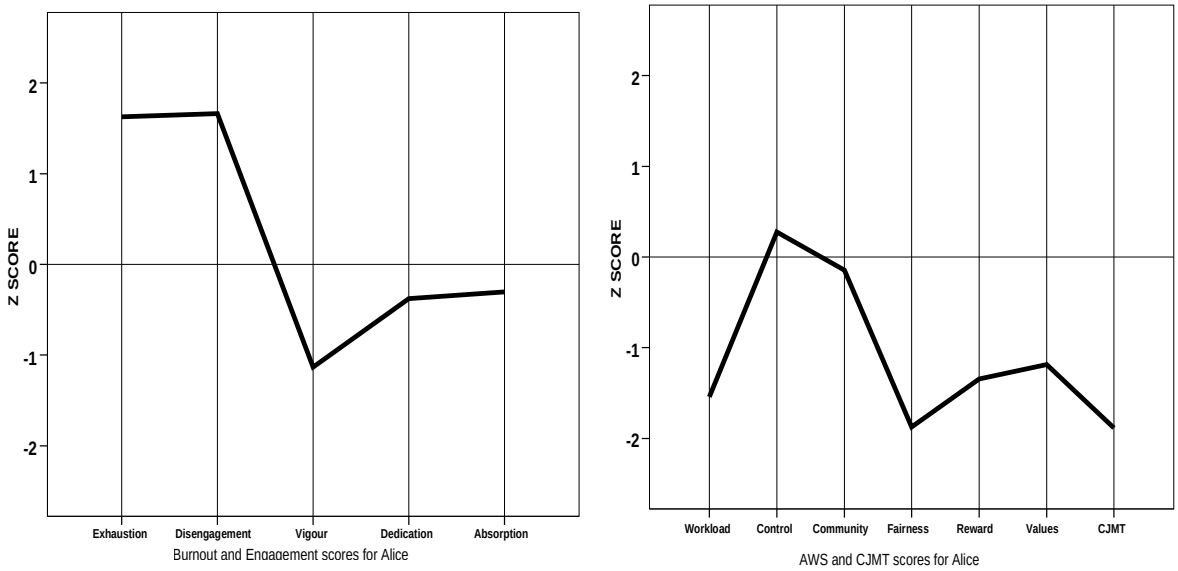


Figure 8.14. Alice's scores on OLBI and UWES (left), AWS and CJMT (right) variables.

Alice is convinced that the job she does (crisis counseling for people who are experiencing financial difficulties) is worthwhile and that it provides an important service to her community:

> I love it, I really feel like I'm doing something meaningful. The people for whom I do this work are always appreciative. They make you feel like you've made a difference in their lives. And they reward you, almost always, by actually achieving something out of it. So, yes, it's an extremely rewarding field and I love it. I don't particularly want to do anything else. Which is one of the reasons why I won't ever let them get rid of this program. I just keep fighting.

Alice's 'fighting' involves providing council with tangible evidence that the program is worthwhile and provides a necessary service in the community.

> It was funded half time by the council, and in their wisdom, they decided to 'defund' [sic] that, but they didn't take the work away. So we had an ongoing kind of battle, so I'm still there and the service is still there, and I have just had confirmation that they will give me a permanent staff member to assist me.

According to Alice, decisions that affect her are made by people who have completely different agendas:

> The reality is that in most organisations, the decision makers are not the people who actually see people; they're not the people who are actually delivering the service. Therefore they are making the decisions based on," how good will I look if I save money"? As a result, services are being constantly revamped or changed, or 'defunded' [*sic*] or one thing or another. At the end of the day, when you are a service deliverer in welfare, you are doing it because you have commitment to social justice

> and people's well being. That's not the case for people making the decisions, they are making decisions based on different criteria, so they are paying lip service to the actual need, that might be underlying the service provision, but they are not really having to look in the faces of the people who are experiencing hardship, or personal difficulty, and tell them, "No, we are not going to help you". So it's true at every level, all the funding bodies, all the government decision makers, all the local government decision makers, they don't have to look at people in the face, they don't have to tell somebody, "No, we are not going to help you". They don't have to tell somebody personally, "I can't fit another appointment in my diary". They don't have to do any of that, they just have to sit there and say, "How clever I am, that I have got the budget, down to this level". I think they should have to face the people that they are affecting when they do things.

In addition to her financial counseling work, Alice is a union shop steward, a position that puts her 'head to head' with management personnel, on behalf of employees who are union members, on a regular basis. Her less than complimentary opinion of management within local government was based on several experiences that she related to the researcher. In one of these anecdotes she told the researcher that:

> It seems almost automatic that those who are 'in charge' focus on the 'kiss up, kick down" approach to management. They spend all their time busily protecting themselves. Telling their bosses, look how good I am, look I'll do anything, and the resulting effect of that is to kick down, so that they can get some outcome. We had an arrangement in place, after seven years of fighting, because I managed to get a very brave group of people to register a Health and Safety complaint about the way they were being treated and bullied. And, we put an official complaint in about it. And out of that, we managed to convert that into a region wide project, to

> fund to do psychological health risk assessment, which was *just* fantastic and what I had been aiming for. Having got that, they then trialed it in one of the services, - parking. They found out that it was true; stress was 'off the scale'. We ran it through the executive and management level, and found that everyone in a supervisory position, right up to the CEO, felt stressed, and furthermore, they all felt bullied. So, isn't that interesting, because there it was in black and white what I had been telling them for years. So, out of that, what did they decide to do? They decided to shelve the project.

Alice reported that she was exhausted, disengaged and that her dedication, vigour and absorption were eroded in her place of work. Furthermore she indicated mismatches on all the areas of worklife, however this appeared to be the impetus for confronting the source of her discomfort head on "I'm a union shop steward and an extremely feisty one". Hence, the experience of an inconsistent and flawed system has awakened passion and determination to fight on and expose these problems.

Julie. Julie belongs to the 45-49 year age group and works as a TAFE (Technical and Further Education) teacher. She reports that she works 50 hours per week. Her profile on the OLBI, UWES, AWES and CJMT variables appears in Figure 8.15.

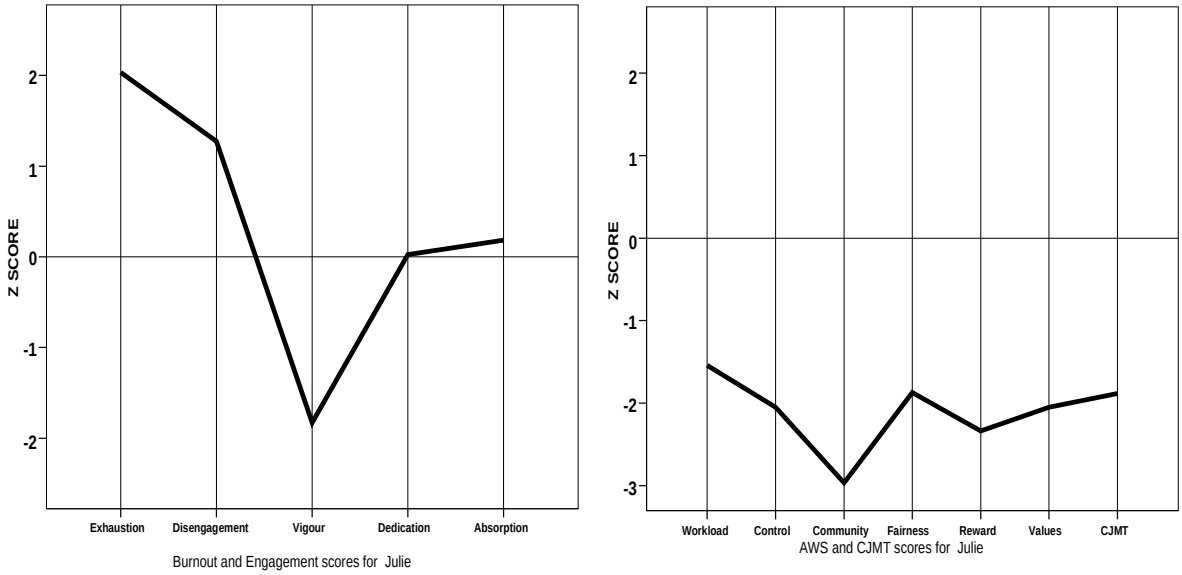


Figure 8.15. Julie's scores on OLBI and UWES (left), AWS and CJMT (right) variables.

Julie's profile indicates high exhaustion and disengagement, low vigour and ambivalence in regard to dedication and absorption. She reports mismatches on all areas of worklife, with extreme mismatch on community and lack of confidence in management. In spite of this, like the previous interviewee, she purports to love her job:

> I LOVE teaching. I also find my students no trouble at all. It really isn't anything to do with the job, the actual job. It's all to do with the management and the fact that I feel I have no autonomy, I cannot make decisions, and I'm not supported in my work. I don't get any recognition for my efforts, all that. It's just; you're just working in a vacuum. Management are there, the only time management get involved, is if they want you to do something, it's a very strange attitude you know, I've been working 30 years and um.. And the attitude now is Management is just interested in quality and ticking off quality sheets. And deciding how you are going to work, when you are going to work, etc. its very autocratic. It's really lost it.

The story Julie tells of her workplace is centred on a management style that is top down and autocratic with a bureaucratic focus. She expanded on this theme and then provided an example of its impact on her:

> We have to report to government but it's become virtually the only focus of senior management. That you get those audits and documents done. Our focus is to teach, their focus is all about the documentation. They're pressuring us, our working arrangements are that we work 30 hours there and do 8 hours at home per week. That's the award or agreement, but they are now starting to pressure people to work anytime that they want them to. And they are including the weekends, there's also a focus to get rid of the conditions and to move people into a flexible work environment. And there's a lot of pressure for us to do more than we used to.
>
> I'm going to 2 days of auditing training. I didn't know I was going to do that, its in my time, non teaching time, you'd call it holidays – but its my non teaching time and it was just by accident that I found out that ..oh someone's put my name down, I've got 2 days that I'm supposed to attend auditing training, that has nothing to do with teaching, it's all to do with paper filling out, which is why we employ administrators, but now we are making the teachers do it. So, I'm starting to think, are we all going to be employed to be administrators, and teaching really isn't the job for teachers. It's that sort of manipulation of things happening bit by bit, no asking, no, "Oh Julie, part of the direction for teachers is to do more of this and we'd like you to do two days", no, "When would be convenient, or when would suit you", and I haven't officially been told yet. Somebody rang me to check the appointment date and I said, "Hang on, I haven't requested this training" and they said, "Oh, no, your name has been put down" and I was just taken back OH!

> So yes, no consultation, decisions are made for you. I've had a lot of work in my life, I started as a junior technician in university and I went through the science field and I came to teaching about ten years ago and I still feel like I'm being treated like a junior technician, with absolutely no abilities to organise my work, and make decisions – none.

Julie said that in spite of the fact that she loves teaching at TAFE she has reached a point in her career where her attitude to her work has changed:

> *Julie.* I just go to work, get the job done, go home, try not to worry about it and I definitely don't put as much effort in as I used to. I decrease the amount that I do. In the last 6 months, I've dropped right back, I only do what I have to. I definitely don't put extra effort in now. Because you are definitely not going to get any reward for that.
> *Interviewer.* 'Reward' is…?
> *Julie.* Verbal recognition, not money, I would just like recognition that I've made an effort. The survey forms that they give the students, all came back really positive and I mean there was absolutely no comment on that. You would only get a comment if you got a bad survey, so you never get a comment if the survey comments are positive. So it's the absolute opposite of what we are told to do for teaching, teaching, we are told to encourage you know, reward those students who are working hard, encourage them and encourage the ones who are not working too, to try a little harder, not to be so negative.

Julie's summary of her experience at work was that she was undermined to the point that she was intimidated by a top down management style and this was undermining her whole experience at work and she is, at present, actively seeking alternative work.

> When the survey came out – you hit a really bad spot, because there had been an accident in the classroom, I'd been hauled over the coals for. Instead of reviewing the procedures, like a proper risk assessment, they decided that telling me off severely would work. I teach OH&S [*occupational health and safety*] and I'm very aware of procedures and I just thought. You don't usually accost the person, you try and work out what went wrong. The other graph – the burnout one, I'm exhausted but lower on disengagement. When I get in front of a class I'm great, I have control, I'm with my students and everything is good, but it's just getting to work. It's only what happens outside the classroom and the fact that I have to deal with management – I'm burned out in my relationship to management.

8.4.1 Discussion of insights from The Burnout Experience 1 Group interviews

All three interviewees from The Burnout Experience 1 Group indicated their autonomy at work was limited and they were in a position where they had to do things that were inconsistent with their own ethics and principles. This subsequently contributed to their experiences of burnout (Leiter & Maslach, 1999; Sparks, Faragher & Cooper, 2001). After a tragic accident Robert found himself the scapegoat in the ensuing investigation and furthermore, the safety programs he had instituted to provide education for staff were jettisoned by higher management. He was therefore expected to keep working as operations manager without what he believed were appropriate safety training programs for staff and with a management that openly demonstrated its distrust of him. This eventually led to his resignation.

Fogarty, Saunders and Collyer (1999, 2001) found that organisational practices that focus on establishing culpability are inconsistent with a safety culture; they compromise safety even more because employees cover up mistakes. Those

industries interested in developing a safety culture (for example, aviation and medicine) apply Reason's (1990a, 1990b, 2000) 'Swiss Cheese' model to best uncover those 'latent failures' within an organisational system (such as poor training, economic streamlining or outdated procedures) that in combination with 'active failures' (conditions of the day, boredom, distraction, minor illness) can cause serious mishap (Fogarty et al., 1999, 2001). Fogarty and colleagues demonstrated clear links between organisational culture and morale, worker mental health and a safety environment. Glendon and Waring (1997) emphasized the importance of strategic organizational planning for occupational health and safety issues to be effectively managed. Taking adequate care of employee health, safety and welfare is an important component of Glendon and Waring's model.

Alice discussed the personal anguish of having to turn people away from counseling because her management had not recognised the essential nature of the service she provides and had 'defunded' the service. Julie spoke of the extra demands encroaching on TAFE teachers' work lives that have nothing to do with teaching, and are designed to maximise accountability. In addition, like Robert, Julie had also found herself in the position of scapegoat after a classroom accident, which was demoralizing for her, in that while standard procedures were in place within her workplace, her management chose not to follow them. Instead her management chose to 'haul her over the coals', thus directly contributing to her sense of unjust treatment.

What is different about these stories to those of the previous group (The Unengaged Group) is the awareness that these people have all experienced overt and personal injustice and disrespect at the hands of their managements. Kim and

Mauborgne (1998, 2005) suggested that if managements wanted the voluntary cooperation of workers, they would have to engage in decision making that respected the viewpoints of employees, and factored these into workplace procedures. If it was not possible to do this, then the reasons why should be transmitted to the workers. This would convey to workers a sense that they were valued. Robert felt so undervalued that he has since left his employment and is now training for another career and Julie is actively seeking alternative employment, both having reported that they have just 'given up'. This is perhaps an example of the 'professional inefficacy' that accompanies the burnout condition according to Maslach, Schaufeli and Leiter (2001). Both have experienced behaviour from management that was unprofessional and did not follow standard procedures in the case of an accident. Therefore both have experienced humiliation and a feeling of having been disrespected at the hands of their employers. According to Miller (2001) this sort of experience becomes the basis of fermenting resentment and disconnection with work.

Alice, on the other hand, being 'extremely feisty' has chosen to confront the source of discomfort for herself and her fellow workers to try and achieve change. Alice reported extremely high exhaustion and disengagement and severe mismatches on workload, fairness and reward as well as extreme disagreement with the CJMT variable. It is therefore suggested that her current activities are not sustainable in the long term and will perhaps be the source of further distress for her, in view of the entrenched nature of the workplace practices that are the basis of her discomfort.

The path analysis for The Burnout Experience 1 Group (see Figure 7.6) revealed a direct pathway suggesting that lack of reward (affirmation and recognition) was directly related to disengagement for these respondents. Julie and Robert both

reported that they felt under valued. Julie stated that the lack of verbal recognition from management, combined with her experience of disrespect and lack of agency in the matter of attending auditing training has undermined her relationship with her work. This is consistent with the effort-reward imbalance model of mental strain developed by Siegrist (1996). The other feature of the path analysis for The Burnout Experience 1 Group that does not appear in previous models is a pathway between control and workload, suggesting that people in this cluster experience role conflict due to a lack of autonomy combined with incongruent demands (workload). This is consistent with Karasek's (1979) job demands –control model that suggests mental strain in the workplace is predicted by the amount of discretion available to the individual worker in making decisions that affect them (control) in regard to coping with the high job demands. It is also consistent with Leiter and Maslach's (2004) prediction that simultaneous mismatches on control and workload would be predictive of role conflict.

8.5 The Severe Burnout Group

Five interviewees represented The Severe Burnout Group (NC5). The defining variable that attracted the highest agreement within this cluster was disengagement (z = 1.46), respondents also agreed they were exhausted (z = .52) and emphatically disagreed with the UWES variables of vigour (z = -1.19), dedication (z = -1.61) and absorption (z = -1.25). This pattern demonstrated that respondents were clearly experiencing burnout; therefore the following five stories portray the burnout experience and its impact on the lives of people. Of the five people in this cluster, Rose and Sarah were in the original cluster four Bu2, and Amy, Eve and Samantha were in the original cluster five Bu3.

Rose. Rose works as an Occupational Health and Safety advisor in a small business with 34 employees. She is in the 40-44 year age group and works 40 hours per week. Rose's response pattern on the study variables is found in Figure 8.16. It is noted that Rose's score for vigour required an adjustment in scale for the first graph in Figure 8.16.

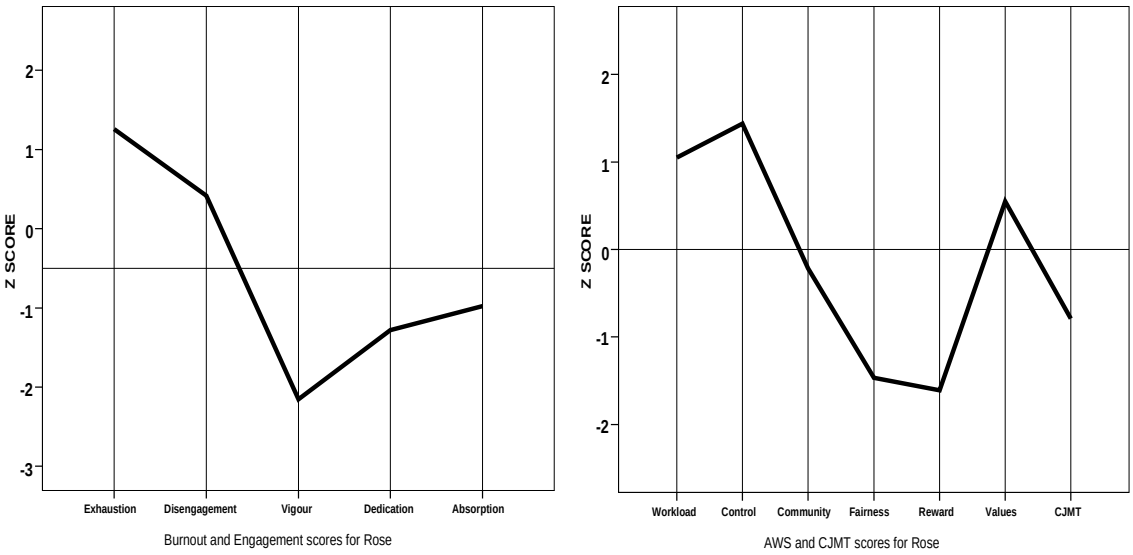


Figure 8.16. Rose's scores on OLBI and UWES (left), AWS and CJMT (right) variables.

Rose's profile revealed a clear burnout pattern and mismatches on community, fairness and reward; she also indicated disagreement with the CJMT. However Rose has indicated matches on workload, control and a slight match on values. As with a previous interviewee (Alex, in The Under Pressure Group) her response on the original management trustworthiness scales revealed more information, there she indicated strong agreement as to the ability of her management and disagreement as to their benevolence and integrity. Rose works in an open plan office. There are 34 other employees, which puts her organization within the small business category as

defined by the Australian Bureau of Statistics (ABS, 2001). The business is run by two partners, one of whom Rose calls the ‘nice boss’ and the other she calls the ‘not so nice boss’:

> I am amazed by how much this other person affects my sense of satisfaction and enthusiasm in my work. It really seems to have changed, what I had hoped would be a nice place to work, to a place I’m increasingly reluctant to be.

Rose appeared to be in conflict about the way she feels about the management in her workplace, she provided information that indicated that in many ways she was treated with a great deal of consideration “when I was sick for a month, I didn’t have a month’s sick leave owing to me, but they paid my salary anyway. This was the ‘nice’ boss’s idea, but the ‘not so nice’ boss agreed to it” and further “I was given a $5,000 bonus at Christmas last year, as the company had done reasonably well financially”. In spite of these considerate behaviours on the part of her management she still feels unrewarded in her place of work, she is not praised and she feels that her work is taken for granted. It was only after an extensive discussion that she finally revealed that her current discomfort with her work stems from a specific incident:

> On a Sunday night in summer, I went to the office to do some ‘non-work’ work. It had been indicated to me that that was OK provided we pay for any resources like paper or stationery we use. I turned the air conditioner on. I was ‘raked over the coals’ for doing that as it “costs them a fortune to run the air conditioner”.

From Rose's perspective, this incident, where she was publicly humiliated, constituted a turning point in her relationship with her work:

> *Rose.* When he 'bailed me out' for turning the air conditioner on, it completely destroyed my sense of belonging and I haven't felt the same about being there since then. Because it was clear that something as trivial as that was a big issue for him.
> *Interviewer.* So he 'bailed you out' in public?
> *Rose*. He called me out into the corridor which was worse, he said, "can I talk to you for a minute", and spoke to me out in the hallway which I found very humiliating. He's so money driven, they are two very different people running the company and I'm treated well, but the bad aspects affect me a lot.
> *Interviewer*. The good ones aren't enough to make up for it?
> *Rose*. No they are not, I guess I've become not very trusting, he's someone who monitors people's computer use, when one of my colleagues was complaining about a software package he commented on how many times she had accessed it and he said, "well she shouldn't complain about it because she has not used it all that much". You know, he does things behind your back. He monitors people's web site access and things like that. It's really horrible. He is there to stay, he is a partner.

The incident in which she experienced workplace incivility from her boss has coloured all other aspects of Rose's work and has led to re-thinking her commitment to it. She has begun to resent a number of aspects of her work situation, two examples being:

> 1. For one project, members of staff are required to travel throughout Australia, New Zealand and the South Pacific. We're expected to do the traveling out of business hours so we're available to do the work during business hours. We're expected not to take time off in lieu for the considerable amount of leisure time we lose. Similarly, if I have to do

work at a site far from my workplace, I'm expected to just bear the loss of leisure time.

2. Neither of the bosses takes any breaks and they don't eat lunch. It's set a culture that staff should work eight hours straight without taking a break and not socialise. Our work is computer based; I get very sore eyes, my eyesight has become worse and I find it exhausting.

Rose indicated that the effect of all of this was bringing her to a point where she will have to seek other work, "I keep telling myself I'm treated reasonably well, I can come home to my animals and have my own life, but it is only getting worse".

Sarah. Sarah (45-49 year age group) held a position as a manager. Some information about Sarah's work situation was not provided in her replies on the survey and she did not respond to a second email, after the one in which she replied to the questions, so that all that is known about her work is that she works in workplace education and training. She listed graduate certificate as her highest qualification, which would indicate that she does have a university degree, although it is not known what field this might be in. Sarah did indicate that the best job she had ever had was "Staff Development Coordinator", which ran commercial nursing programs in a large Australian city, Malaysia and Singapore, so it is assumed that her expertise enables her to undertake jobs of a similar vein as an educator, this is consistent with some of her responses. Sarah reported that she worked 41 hours per week, her responses to the study variables are displayed in Figure 8.17.

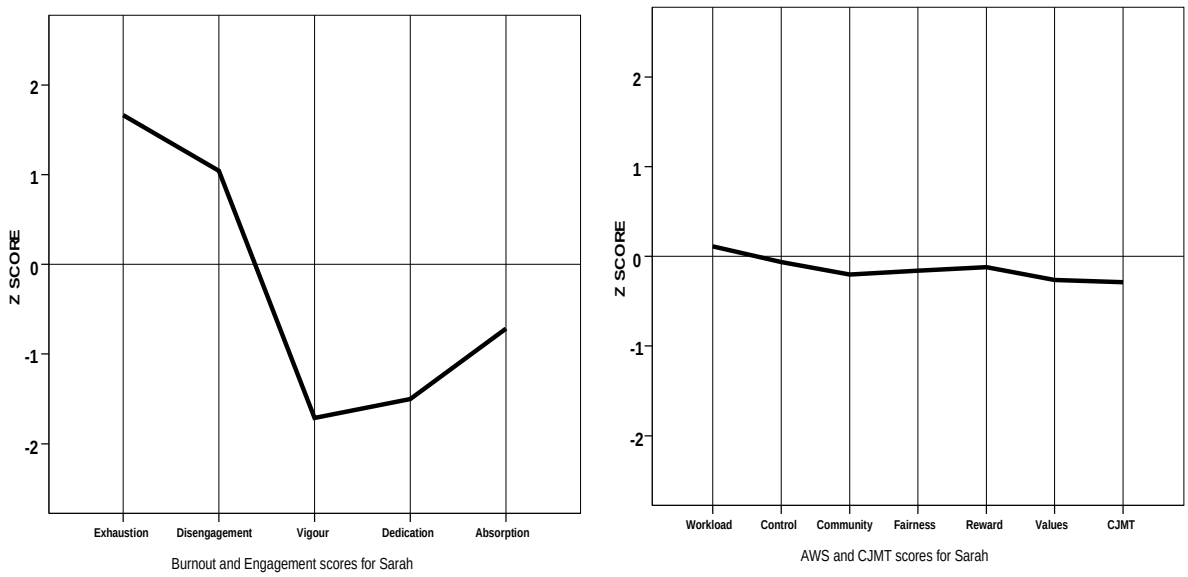


Figure 8.17. Sarah's scores on OLBI and UWES (left), AWS and CJMT (right) variables.

Sarah indicated a clear burnout pattern and ambivalence on most of the AWS. Her response to the CJMT was also ambivalent, indicating that she had doubts of management trustworthiness. Sarah's response to the question, "is there any likelihood that you would seek to find another job in the near future, if so, what would be your main reason for seeking other work?" was succinct: "Have found another job. I want to be happy at work, not hate it. I spend a lot of time at work and life is too short to be unhappy".

Sarah's description of the overwhelming problem at her place of work seems to have been to do with a company policy of sending poor performing employees for training. As the person running the training programs she was left with the problem. While this could be interpreted as management support of poor performing employees, from Sarah's perspective the exercise was a cynical one; it was performed so that company could provide evidence of supporting these employees.

At the same time resources and funding for the programs were cut, leaving those running the training feeling ineffective and there was:

> Lack of support to undertake effective human resource management of poor performance. Policies exist on paper but little support from those above me or those above them to implement them. Lots of effort and expense wasted just to be seen to be giving the poor performing person a ‘fair go’. This wasted effort meant attention could not be given to average or exceptional performers, the 80/20 principle! I am not talking about helping individuals who just need extra support to achieve competencies I am taking about people who can’t make it and in the end don’t make it. I referred to these students as ‘recycled’ students. We just kept going around in circles until FINALLY an end could be found.
> The other major issue I had was more and more outcomes being expected when resources were, not only, not given to achieve that, but in fact were being taken away to meet demands seen as more important. Educators are being taken to fill operational gaps but the education unit was expected to do more with less. I accept that efficiencies should and can be found but eventually there is a limit to how much can be done, that was never recognised.

Sarah’s comment about her new job provides more information about the one she held when she completed the survey:

> I like my new job because I don’t have to take it home with me. My job is finished when I walk out the door and starts again when I walk back in. Of course I think a little about the next day but not much. It is an 'All care and no responsibility' type job. I have only just decided to leave my old job having to choose between the two and a friend of mine put it quite well when I was discussing my choice with her, she said "So you are trying to decide which cactus?" The 'grass isn't greener' in my new job it is just different grass, it has different prickles but I am much

happier. I think that is because more reasonable expectations are put on me and I can see a positive future with things getting better not worse. It isn't a 'battle' to do my job anymore.

Amy. Unlike most of the other interviewees Amy is not a professional; she has a limited high school education, belongs to the 45-49 year age group and works 40 hours per week in a factory that processes wine. Amy's responses on study variables may be found in Figure 8.18. It is noted that Amy's responses are more emphatic than those of other interviewees, as evidenced by the adjusted range of scales on both graphs.

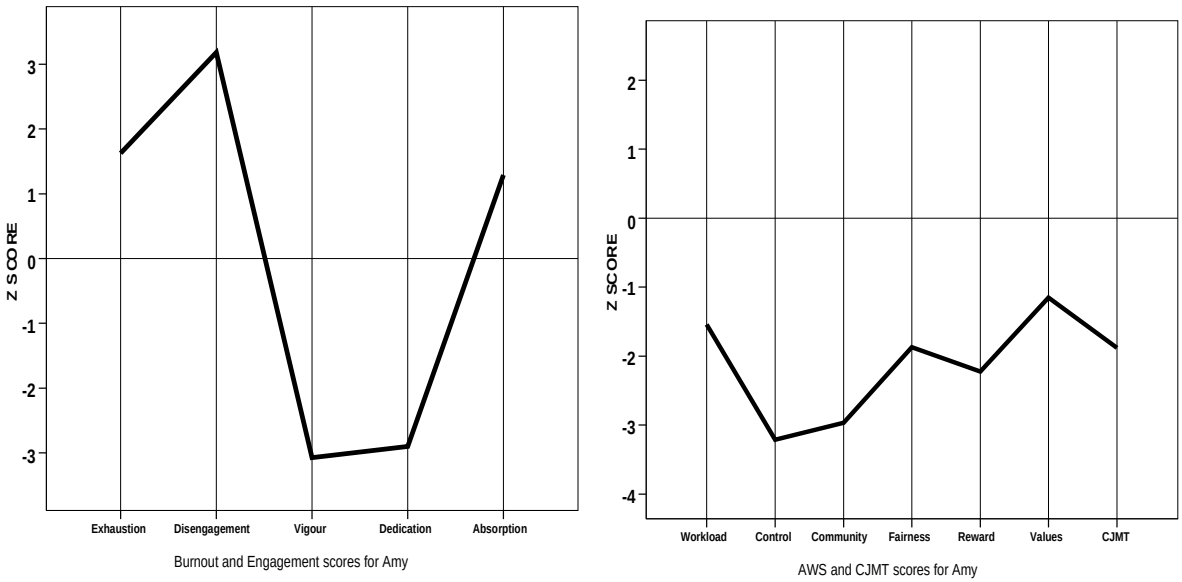


Figure 8.18. Amy's scores on OLBI and UWES (left), AWS and CJMT (right) variables.

Amy described her workplace as 'toxic': "there's pettiness and nastiness that there is no need for. There is a policy that if you are casual, you are treated badly (I'm permanent now) but if you are casual you are nothing". When asked if there

were any positive aspects of her work, for example, friendships, Amy replied with more information about the sexual harassment and lack of teamwork that characterises her workplace:

> Not really, the boss used to press up against us until I reported him. I have some friends, yeah. Its sort of hard work and I complained last year and they've made a few changes – the leading hands – they are males and they were told by the boss that they didn't have to do anything you know out on the floor. So they'll stand there and watch a female lift 25 kilo or whatever – if you've got to restack a pallet of cartons of wine - no help from them at all or anything like that….Older women that are there, their sense of teamwork is that they do 'stuff all' and we do the rest. They say its like being at school, but its just petty and nasty and the lies and anything they'll run in the office with, but its all sort of blown out of proportion – any little thing, they'll go and 'dob' on people.

When Amy was reminded that sexual harassment was against the law and would not be tolerated she commented that since she reported her boss's behaviour, she has not experienced the 'pressing up' against her, but the experience has had other consequences:

> Yeah, on paper it looks and sounds good. You know, according to that they don't tolerate harassment. I reported him to a union a couple of times and he was reprimanded because of what he did to a lot of women and because of what he did to me- he's got this vendetta for me going now. He is vindictive; he'll just do pathetic things.

Amy related an experience of leaving signed compensation documentation, to be lodged the next day, on the desk of an office assistant when she was on night shift.

The papers disappeared. According to Amy, her manager has had no training for the position he now holds:

> He was maintenance worker for six months and just happened to be there when the other manager was leaving and it was easier for the top guy on site to put him there, he has no experience as a manager, he's got the audacity to ask us "are you qualified to do that?"….He didn't do stuff like press up against people until after he got to be manager. He just thinks he can do what he likes when he likes, but he found out different.

Amy's agreement with the UWES variable of absorption would appear to be inconsistent with her other responses. An example of an item that loaded on the absorption construct was, "I am immersed in my work". Amy did indicate that the work she does (filling bottles of wine) is work that requires continuous concentration "its really hard work, the filling". It would appear that this may be responsible for her agreement with this variable.

In regard to her present situation, Amy has intentions of moving to a large capital city and seeking alternative employment, "I'm just going down to [*name of city*]. I've been checking on the computer and there's stuff down there. We've had intensive training and we've got certificates and stuff to say we do this and that".

Eva. Eva (age group 40-44 years) works as a teacher in an English language school in a major metropolitan centre; she reported that she works 40 hours per week. English language schools are run by commercial companies to teach English to international students and migrants. Her responses on the study variables appear in Figure 8.19 and show a burnout pattern with higher disengagement than exhaustion. She indicated matches on control and community, ambivalence on fairness and

mismatches with workload, reward, values and disagreement with the CJMT in regard to management trustworthiness.

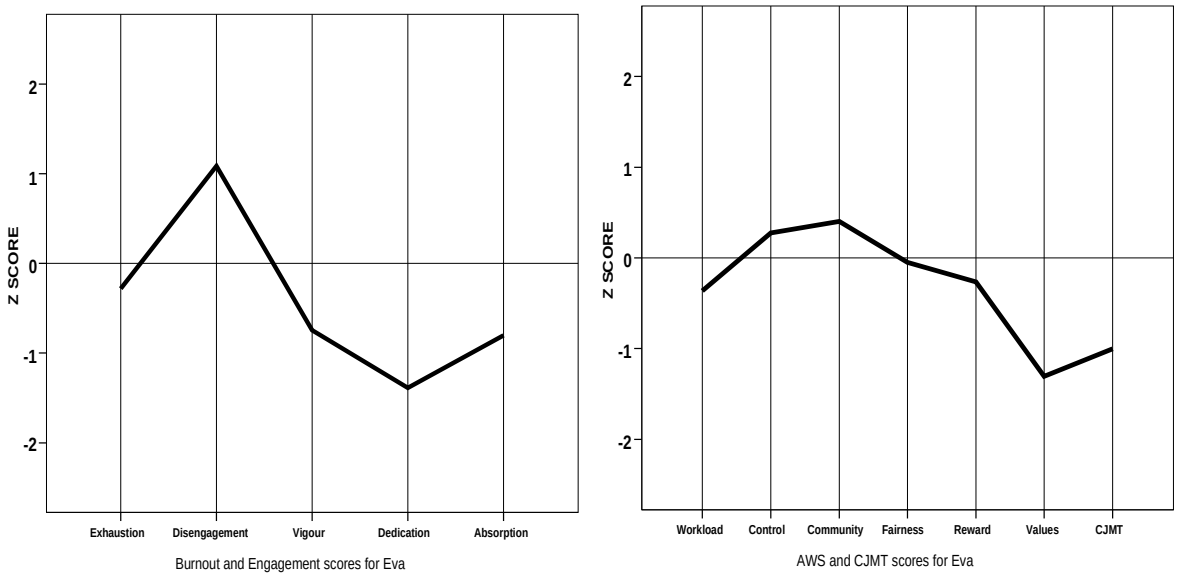


Figure 8.19. Eva's scores on OLBI and UWES (left), AWS and CJMT (right) variables.

Eva agreed that her dissatisfaction with her work came from a sense of being unrewarded, a sense of unfairness and incongruence in values between herself and her employing organisation. She was hopeful that things would change with the promotion of one of her colleagues who was aware of the pressures on teachers in such schools, however she indicated that the root of the problem lies in the school's owners who are located in other countries, and who make decisions with no knowledge of the needs of teachers and no consideration for the dynamics of mixing people of different ethnic backgrounds:

> *Eva.* Very much run like a business rather than a school. He (CEO) runs it like how many bums on seats, and he doesn't care if the ethnic balance is upset. Like right now he doesn't care how many [*name of ethnic group*] he gets. The union has been good at bargaining. Like I like the

> teaching and the students are very successful, but I'm getting really tired of the whole thing….It changes so quickly, wave after wave. In 2003 it was really good, but it has just gone downhill.
>
> *Interviewer.* What is the difference between a well run language school and one that is run like this?
>
> *Eva.* Too much interference from the management, who don't have much experience in teaching, they are too far away from the school – We did have a teacher who wanted to get the students watching movies and commenting on them. The CEO vetoed that, as the "students would all sit around watching movies". She [*the teacher*] was a specialist Media Studies teacher and knew what she was doing. But he still vetoed it. Things like that. He ends up sabotaging what could have been really good! I think he was interested in the good of the school, but just went about it the wrong way. He doesn't understand the balance of nationalities, if people are not in the classroom situation, they are not learning.
>
> I've been in it for so long, my loyalty has gone. I teach, they give me my money and I go home. The union is doing a really good job, but the whole industry is not well run and not well regulated.

Samantha. Samantha, who belongs to the 25-29 year age group, was the youngest interviewee in this study. She worked 40 hours per week as a receptionist in a large government department. In the time between completing the survey and the interview, Samantha had changed jobs within the same government department.

> If I were still in my old position then I would say that I'd have more reservations now than I did last year due to the immediate supervisor and the manager above that person. But I am happy to say that at the moment I have no reservations about my current role.

Samantha's responses to study variables appear in Figure 8.20.

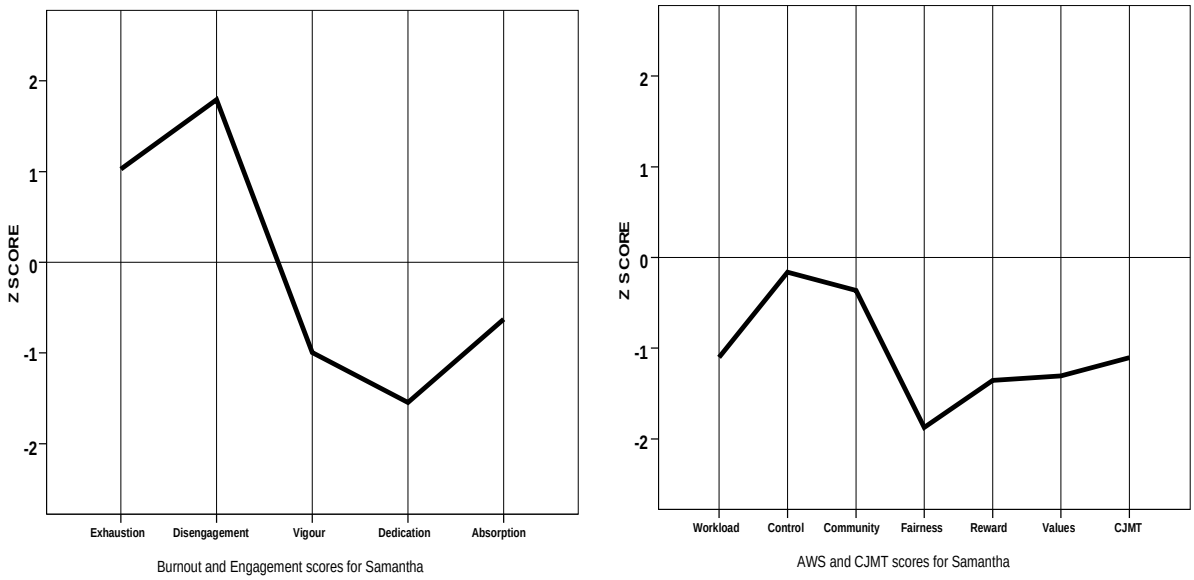


Figure 8.20. Samantha's scores on OLBI and UWES (left), AWS and CJMT (right) variables.

Samantha's responses indicated a clear burnout pattern, mismatches on all areas of worklife and disagreement with the CJMT that measured management trustworthiness and equity. She indicated that the main issues she had faced in her previous position were "the people that I worked with".

> The overwhelming problem with my old position was dealing with supervisors and managers and also the general lack of respect and understanding of Reception tasks. The rest of the staff thought that all we did was answer phones and as such could drop anything to assist them. Managers/Supervisors were too busy covering their own butts and thinking of money more than the effect the spending would have on morale etc.

Samantha revisited survey comments and expanded them in light of her experience in her new position: In regard to expectations she had written in her survey response that she had three expectations: "1. To be supported by superiors 2.

To be offered and allowed to attend job specific training 3. Co-workers to be respectful and not bitch behind other staffs' [*sic*] backs". Her comment in regard to her new position was: I feel that my move into [*name of new department*] has helped me feel that these 3 expectations can and will be met. I feel well supported and have already attended numerous training [*sic*] specific to my new role".

In regard to workplace equity, Samantha had commented in her survey "Management.. as a whole are more concerned with covering their own butts than actually aiding the employee". When reflecting on her new position Samantha commented that she did not feel this would be as bad and that she could expect to be supported if she needed it, "obviously managers deal with different pressure, however I feel that I would be supported by my team management".

Finally, Samantha commented on her open comment, which had been "Senior management are very good at keeping up appearances of caring for staff, however their actions show a very different story". In relation to this she said:

> I still tend to feel this way about senior management in general. From my experience with [*the name of government department*] and from co-workers' experiences I still feel when it comes down to it, the employee at the bottom of the rung will still be put in last place and not necessarily treated with the respect they deserve. However having said that, I do believe that I am in a better and more supportive team where I am now!

8.5.1 Discussion of insights from The Severe Burnout Group interviews

Interviewees from The Severe Burnout Group presented five windows into the lived experience of burnout. Two of the interviewees (Sarah and Samantha) had moved on to alternative employment during the time that had intervened between completion of the survey and the interview and reported that they were much happier in their new

work. All interviewees in this group expressed a desire to find other work; thereby supporting Maslach et al.'s (2001) point that worker burnout has a direct relationship to turnover. The experience of two interviewees (Rose and Amy) in particular, pinpoint the direct role management might play in preventing or exacerbating the development of burnout in workers.

It is suggested that Rose plays a valuable role within the small business in which she works. The company thought enough of her contribution to continue paying her sick pay during a recent illness, in spite of the fact she was not entitled to this, and furthermore, advanced her a $5,000 bonus at the end of the year. Financially she has been treated very well, and her management may well think that her current burnout experience is not related to her experience of the work environment. However, people also feel that they are entitled to be treated with dignity and respect (Kim & Mauborgne, 1998, 2005; Miller, 2001). By submitting Rose to the humiliation of being 'bailed out', in circumstances where every other worker in the company could not fail to be aware of what was going on, her boss subjected her to a major public indignity.

Consistent with Siegrist's (1996) theory of effort reward imbalance, the experience has robbed Rose of the status control and esteem (rewards that, according to Siegrist, people feel they are entitled to in their place of work) (see also, Rumelt, Schendel & Teece, 1991). Leiter and Maslach (1999) suggested that workers value fairness and respectful treatment as indications of management's genuine concern for staff (see also Kim & Mauborgne, 1998; Miller, 2001) and Mayer and Davis (1999) suggested that managers who were conscious of the vital role played by fairness in the workplace would not abuse the power differential in the employer/employee

relationship. According to Miller (2001) people may not be able to articulate what it is they expect from their workplace in terms of the psychological contract (Rousseau, 1995). However they clearly recognise it when their sense of 'rightness' has been breached. Rose's reaction to the experience of disrespect in her place of work, for something that could easily have been dealt with in private, or (in view of the company's good financial position) ignored; is consistent with the large literature on procedural justice, that people value the practice of fair procedures in the workplace more than favourable outcomes (Chen, Brockner & Greenberg, 2003; Colquitt, Conlon, Wesson, Porter & Ng, 2001; Judge & Colquitt, 2004).

Amy is, on one hand, fortunate to have an active union to protect the interests of workers in the face of what appears to be management indifference to the supervisor's blatant sexual harassment of women employees. However it would appear that although what is presumed to have been a serious warning has been successful in terms of stopping the unwelcome behaviour, further intimidation of workers and abuse of his position by this man has not ceased. Unlike Rose's open plan office workplace where socialising is not encouraged and management is highly visible, Amy's workplace is characterised by political machinations, power struggles, potent cliques and an absent senior management, all of which convey disrespect to the individual.

Although Amy's job requires concentration and skill to execute, it is menial and tedious, prescribed by the pace of machinery and supervisors who monitor every action and therefore of low status. According to Karasek and Theorell (1990) such work places heavy psychological demands on workers because they are required to tolerate long periods of boredom combined with the need for sustained intense

concentration, with no compensating decision latitude. Schabracq and Cooper (2000) described this sort of work as 'impoverished' because it provides little in the way of challenge, opportunities and rewards. The psychological demands of her work are compounded in Amy's case by a sense of social distress and a political climate that tolerates unfair and dissonant work practices, on the part of her supervisor, that are intimidating. In view of the fact that Amy has a very limited education, it is unlikely that she will find alternative work that is more congenial. This would also factor into her current sense of alienation and burnout, leading to hopelessness, powerlessness and eventually impacting severely on her health (see Cropanzo, Howes, Grandey & Toth, 1997; Vigoda, 2002).

Unlike Amy and Rose, Eva has not encountered specific instances that have impacted on her personally. Like Roger and Amanda in new cluster three she finds herself in the position where decisions that affect how her work runs are made at 'arms length' by a distant management would seem to have little interest in the repercussions. These decisions range from inappropriate mixing of ethnic groups (impacting on classroom dynamics) to blatant interference with a teacher's lesson plans, thereby undermining her professional autonomy. While the experience Eva related was vicarious, it was nevertheless a potent example of disrespect and provides an example of how workers value respectful behaviour on the part of management (Miller, 2001). Eva's experience within the English language school was reminiscent of Sarah's (as a workplace educator) in that resources were being removed at the same time extra demands were being imposed, thus contributing to a job demands –resources imbalance as outlined by Bakker and Demerouti (2007), that was in turn, creating stress and impacting on their experience of burnout.

Fortunately for Sarah and Samantha, the discomfort they reported when they completed the survey has been resolved by finding alternative work. However both expressed views that suggested that they did not expect the new job to be free from all of the problems they encountered in their previous positions, and indicated that the experience of disengagement with their work has influenced their perception of their current jobs, “the 'grass isn't greener' in my new job it is just different grass, it has different prickles” (Sarah) and, “I still feel when it comes down to it, the employee at the bottom of the rung will still be put in last place and not necessarily treated with the respect they deserve” (Samantha). However, what distinguishes their experiences from those of Rose, Amy and Eva is that they have been able to remove themselves from the immediate source of discomfort and are no longer in the position of daily living with the debilitating negative effects of chronic exhaustion and disengagement.

8.6 Summary of Interview Data

8.6.1 The use of the K-means Cluster Analysis Categories to Organize Qualitative Data

The interviews outlined in Chapter 8 provided further elucidation of how aspects of the workplace unfold in the experience of burnout and engagement. The use of K-means cluster analysis to identify those groups of respondents who manifested similar elevations of responses to the OLBI (Demerouti et al., 2002) and UWES (Schaufeli & Bakker, 2003), provided a structure for analysis of interview data. Because the AWS (Leiter & Maslach, 2006) and the combined justice management trustworthiness (CJMT) variable (developed in Chapter 5) had not been used in defining the clusters, it was interesting to examine individual interviewee responses

on these variables and to hear individuals' own commentary on their interpretation of the graphs that appear in Figures 8.1 to 8.20. In all cases the interviews supported an expanded understanding of quantitative analysis and provided points of explanation for the cluster division (Chapter 6) and issues that arose as a result of the path analyses from Chapter 7 where unexpected pathways were indicated between variables. It is posited that this method of defining groups of respondents provided the means for objectively categorizing subsequent qualitative data. By contrast, the method of categorizing qualitative data employed in the first stage of the research, reported in Chapter 2, using a directed approach (Hsieh & Shannon, 2005), Nvivo 7 software and two independent coders, while rigorous, could not possibly have achieved this level of objectivity.

8.6.2 The Middle Group

The combination of quantitative methods with qualitative data enabled an appreciation of what was happening within the middle cluster; The Unengaged Group. Interviews with the six respondents from The Unengaged Group signalled that two subgroups existed within this group. The first subgroup included those who indicated matches on the areas of worklife. Their reduction in engagement with their work was due to disillusionment as to career values (in the case of Gemma) or career status in the community and changes in work processes as is the case with Philippa. The second subgroup within The Unengaged Group indicated mismatches on the areas of worklife and that their reduction in engagement with their work was due to aspects of their work environment that undermined their autonomy (control) and thereby impacted on the other areas of worklife.

What was especially interesting about The Unengaged Group was that it represented 30.7 % of survey respondents (n= 158), and that these people indicated that they were neither experiencing burnout, nor were they engaged in their work. This is supportive of Schaufeli and Bakker's (2004) proposition that burnout and engagement are not necessarily opposite constructs and provides an expanded understanding of how burnout might develop within workplace populations. In regard to the identified subgroups, the two interviewees from the Match subgroup, who experienced matches with the AWS variables, were able to report some satisfaction with aspects of their work, indicating that they had adjusted to the disappointment that had been manifested within their chosen career and were satisfied with their work environments. However the Mismatch subgroup, who were not necessarily disappointed with their choice of career but who were experiencing some major frustrations within the areas of worklife, had not achieved adjustment. Furthermore, three out of the four interviewees from this group had subsequently found alternative work.

8.6.3 Work Engagement

The two groups that indicated agreement with engagement variables, (The Empowered Group and The Under Pressure Group), had differing responses in regard to exhaustion. In addition respondents in the second group indicated that they experienced mismatches on workload. Investigation of Figure 6.3 reveals that these two groups differed in response to the AWS and CJMT variables. The Empowered Group registered matches on the AWS variables and agreement with the CJMT variable, whereas the under pressure group indicated a clear mismatch with workload, ambivalence towards fairness and only slight matches with control,

reward, community and fairness. While the findings from The Empowered Group supports Leiter and Maslach's (2004) premise that matches on the areas of worklife are predictive of work engagement, those from The Under Pressure Group suggest that other factors, such as intrinsic interest in the job domain, may also contribute to work engagement. However, it is noted that The Under Pressure Group interviewees who reported some notable mismatches on the areas of worklife, did provide indications that these mismatches caused them some distress.

In view of psychology's recent emphasis on developing a more scientific and systematic understanding of human potency and optimum levels of functioning in what is called 'positive psychology' (Schaufeli, Bakker & Salanova, 2006; Seligman & Csikszentmihalyi, 2000; Seligman et al., 2005); it is unfortunate that more respondents from The Empowered Group did not indicate their willingness to be interviewed in the current research. Schaufeli (2004) has highlighted the need for organisational psychology to develop a more definitive understanding of the characteristics of work place health as a 'state of complete physical, mental, and social well being" (p. 503). In the present study, The Unengaged Group provides an example of the condition described by Schaufeli as an 'absence of disease'; interviewees were not burned out, but they were not experiencing work engagement either. Those in the Mismatch subgroup were clearly experiencing a great deal of discomfort within their work situation in spite of their lack of burnout, so absence of burnout clearly does not necessarily mean that a person is comfortable or engaged within their work environment. By contrast, both interviewees from The Empowered Group had some regrets in regard to their work, however these were more than

compensated for by their ability to make their own decisions and (in the case of Maggie), the supportive nature of the work environment.

8.6.4 Work Burnout

Interviewees from The Burnout Experience 1 Group and The Severe Burnout Group (provided clear support for research hypotheses that mismatches on the areas of worklife and lack of management trustworthiness was related to the development of burnout. All interviewees spoke of uncongenial work environments that undermined their relationship with their work. Consistent with Leiter and Maslach's (1999) premise, in all cases these experiences were linked to their managements' failure to provide a fair workplace where individuals felt supported and rewarded. Rose is a particularly interesting example, in that she has been rewarded financially for her contribution, but not by personal recognition or acknowledgement. Her experience of humiliation at the hands of her employer in regard to switching on the air conditioner during the weekend, has led her to conduct some 'mental balancing' reminiscent of the effort-reward imbalance model (Siegrist, 1996), and to the conclusion that in terms of balance (her psychological contract), the employer is getting a better deal than she is. Inevitably this has led Rose to re-evaluate her contribution to her work and recognise inequity in a number of workplace procedures, including the practice of using employees' personal time to travel for work. Interestingly, Halebesleben and Demerouti (2005) spoke of a point where the overload of emotional and physical exhaustion becomes cognitive as the individual struggles to make meaning out of incongruity. Rose's encounter with her employer indicates that the overt experience of disrespect can also lead to such a renegotiation of the psychological contract

(Rousseau, 1995), and the development of such 'mental balancing' on the part of the employee.

Whitener, Brodt, Korsgaard and Werner (1998) warned that it was up to managements to provide an environment that initiated trust within the workplace (see also Leiter & Maslach, 1999). Miller (2001) warned that because people read unfair treatment as disrespect, it is a breach of the psychological contract (Rousseau, 1995). Therefore people withdraw from workplace citizenship behaviour (Colquitt, Conlon, Wesson, Porter, & Ng, 2001), voluntary cooperation (Kim & Mauborgne, 1998), involuntarily disengage from their work (Demerouti et al., 2002) and lose their commitment to their work (Mathieu & Zajac, 1990; Reichers, 1986).

8.6.5 Conclusion

The current research has found substantial evidence that many workers are burdened by perceptions of injustice (Miller, 2001), lack of management integrity (Mayer & Davis, 1999) and consequently have withdrawn into a place where they are exhausted and disengaged with their work (Demerouti et al., 2002). Others are not necessarily suffering burnout, but are distressed by aspects of the work environment that impact on their engagement with their work. Skarlicki and Latham (1996) found that it was possible for organizations to turn such a situation around by training managers in justice and Kivimaki and colleagues (2004) found that favourable changes in workplace justice was associated with reduced health risks for employees. In view of the fact that most interviewees from The Burnout Experience 1 Group and The Severe Burnout Group (as well as The Unengaged Mismatch subgroup) expressed views that indicated that they were actively seeking alternative employment, it could be that organisational focus on providing workplace justice

training for managers would reduce turnover and enhance voluntary cooperation on the part of workers, thereby reducing burnout and promoting engagement.

Chapter 9

Conclusions

9.1 Overview

The current research supports an already extensive literature (for example, Leiter & Maslach, 1999, 2004; Maslach et al., 2001; Schaufeli, 2004) that indicates that burnout and engagement happen within an organisational context and are not necessarily the result of individual workers' characteristics. The purpose behind the current research was to achieve more clarity as to what was present within workplaces that promoted burnout or engagement with work and to ascertain those characteristics that were specific to burnout and engagement in the workplaces of people who were identified as experiencing the conditions. The current study has found people who identify with both burnout and engagement, and also a sizeable group who reported that they are not burned out by their work, but they are not engaged in their work either.

9.1.1 Chapter One

Chapter one presented some aspects of the considerable body of research that has investigated burnout and engagement within their organisational context as well as brief overviews of the procedural justice and management trustworthiness literatures. Leiter and Maslach's (1999, 2004, 2006) six areas of worklife concept was used as a framework for additional material that contributes to understandings of how stress develops within workplace settings. It was demonstrated that the areas of worklife (AWS) not only integrates the considerable body of research that is specific to

burnout, but also has relevance for other literatures in organisational psychology and human factors research. Unlike the Job Demands Resources model (JD-R) (Bakker & Demerouti, 2007) the AWS emphasises the role managements play in establishing a context in which employees will achieve matches, thereby honouring their psychological contract (Rousseau, 1995). As a result, the AWS incorporates the psychological contract as a central construct. This is because match/mismatch signals lived experience as contrasted with prior expectations.

9.1.2 Chapter Two

Chapter two focused on the concerns of small business and demonstrated, within that setting, that burnout and engagement can be features of the management experience and not just that of employees. To some extent the findings of this Chapter, based on the initial stage of the research and incorporating interviews with ten individuals, looked out of place within the larger research project. In addition, findings from a study with only ten people could well be seen as un-representative of the larger population of small business managers. However, it is noted that the interviews supported the findings of the research project as a whole and therefore provide some foundation for future studies into the development of burnout and engagement within regional small business. While respondents in the subsequent survey were provided with the opportunity to indicate the size of their business, there was no significant finding in regard to this differentiation. This, in itself, provides support for the relevance of the AWS model (Leiter & Maslach, 2006) to all organizational types.

9.1.3 Chapter Three

Chapter three focused on the topic of teachers' workload (AWS) based on responses to the teachers' phase of the survey. Respondents reported that this mismatch on

workload, manifested in a prolifteration of extra tasks that are nothing to do with teaching, contributed to their exhaustion. This chapter comprises a published paper that contributes to dialogue on this topic and raises some issues that may inform future educational policies in regard to sustainable work for teachers. Respondents reported having to take work home in order to meet completion imperatives, thereby impacting on individuals' family lives. Related to this was the reported widespread expectation within educational systems that teachers will take on co-curricular duties. While these are supposedly 'honorary and voluntary' it was made clear by respondents that participation in co-curricular activities was considered to be an important factor in considerations for promotion and therefore was the source of much added pressure.

9.1.4 Chapter Four

The cluster analysis undertaken in Chapter four provided some broad support for predictions that the AWS (Leiter & Maslach, 2006) could predict the workers' burnout or engagement. It was demonstrated that matches on the AWS were consistent with burnout in workers as determined by the Oldenburg burnout inventory (OLBI) (Demerouti et al., 2002) using the variables exhaustion and disengagement. It was also demonstrated that matches on the AWS were consistent with worker engagement as measured by dedication, absorption and vigour from the Utrecht work engagement scale (UWES) (Schaufeli & Bakker, 2003). The exception to this was the AWS variable of workload. Mismatches on workload were not found to be inconsistent with worker engagement. The other contribution of Chapter four was some evidence in support of Schaufeli and Bakker's (2004) premise that

engagement was a separate construct from the burnout construct that correlated negatively with it.

9.1.5 Chapter Five

The focus of Chapter five was the demonstration of common ground existing between the AWS variable of fairness (Leiter & Maslach, 2006), the procedural justice variable (Moorman, Blakely, & Niehoff, 1998) and the management trustworthiness variable (Mayer & Davis, 1999). Strong correlations between the constructs did suggest that the measures were covering common ground. The use of Structural Equation Modeling (SEM) techniques established that, for respondents in the current research, that procedural justice (Moorman et al.) and management trustworthiness constructs (Mayer & Davis) were virtually identical. A one factor congeneric analysis using items from all scales indicated six management trustwothiness items and one fairness (AWS) item provided coverage for all items. This reduced scale was called the combined justice and management trustworthiness variables (CJMT). It was however noted, that Leiter and Maslach's (2006) fairness construct also had important strong relationships with the other two constructs, but, as evidenced by high measurement error values for its one remaining item in the final construct, there were indications that it was measuring some aspect of the work environment not tapped into by the other items. It was unfortunate that within this process it was necessary to discard responses of 46 respondents; this was due to a significant MCAR test indicating that it was not prudent to use Expectation Maxmimisation to replace missing values on these surveys (Cunningham, 2007).

9.1.6 Chapters Six and Seven

Chapter six covered a complex statistical journey made necessary by divergence of responses from participants in the current research to factors as previously established by their authors. There were inconsistencies with the AWS (Leiter & Maslach, 2006), the OLBI (Demerouti et al., 2002) and the UWES (Schaufeli & Bakker, 2003). Details of the maximum likelihood factor analyses that found the inconsistencies can be found in Appendix C. The findings led to a revisiting of the cluster analysis process and consequent re-organisation of the clusters to enable path analysis to proceed. The path analyses reported in Chapter seven demonstrated partial support for Leiter and Maslach's (2004) premise of how the areas of worklife interacted within the workplace. They demonstrated that workload followed a separate pathway to the other areas of worklife in a direct pathway to exhaustion and that the relationships of the other variables followed a pattern that was fairly consistent.

The pattern of relationships between AWS variables of control, reward, community, fairness and values demonstrated in Figure 7.8, deviates from that found by Leiter and Maslach (2004) in that reward has no direct relationship with values, but is mediated, in most cases, by community and fairness. The consistent finding of no relationship between reward and values emphasises the interaction of reward (acknowledgement and appreciation) with community (support and a sense of belonging) with each other. In most cases the path analyses also demonstrated a further relationship of these two variables with fairness, which in turn was related to matches or mismatches between individual and organisational values.

9.1.7 Chapter Eight

Chapter eight represents the third and final stage of the research project. This stage involved interviews with people who had completed the survey and who indicated their willingness to be interviewed. Interview data and commentary are presented within cluster groups. The interviews provided the researcher with an extra perspective on findings of the previous statistical analyses and led to the discovery that the middle group of survey respondents, The Unengaged Group, was in fact comprised of two subgroups, one that indicated matches on the AWS variables and one that indicated mismatches on these variables. The interview data strongly supported previous statistical analyses and the research hypotheses as individuals who were engaged in their work spoke of the rewarding effects of autonomy, community and fairness in their work environment and those suffering burnout spoke eloquently of the effects of severe breakdown in the areas of worklife.

9.2 The research model and hypotheses

The research model demonstrated in Figure 1.1 has dominated the focus of research throughout this project. It was hypothesised that the dynamic interaction of the variables with the large oval shaped sphere would predict a positive relationship with burnout and a negative relationship with burnout. Figure 9.1 presents a revised model that reflects some of the main findings of the present research and hypotheses that may direct future research. The oval shape depicting the relationships of the independent variables that was a feature of Figure 1.1 has been maintained in Figure 9.1 for its organic imagery and because it is advanced that the variables portrayed within it present the areas of growth and possible areas of failure within

organizations (the ‘latent failures’ within organizations referred to by Reason, 1990a, 1990b).

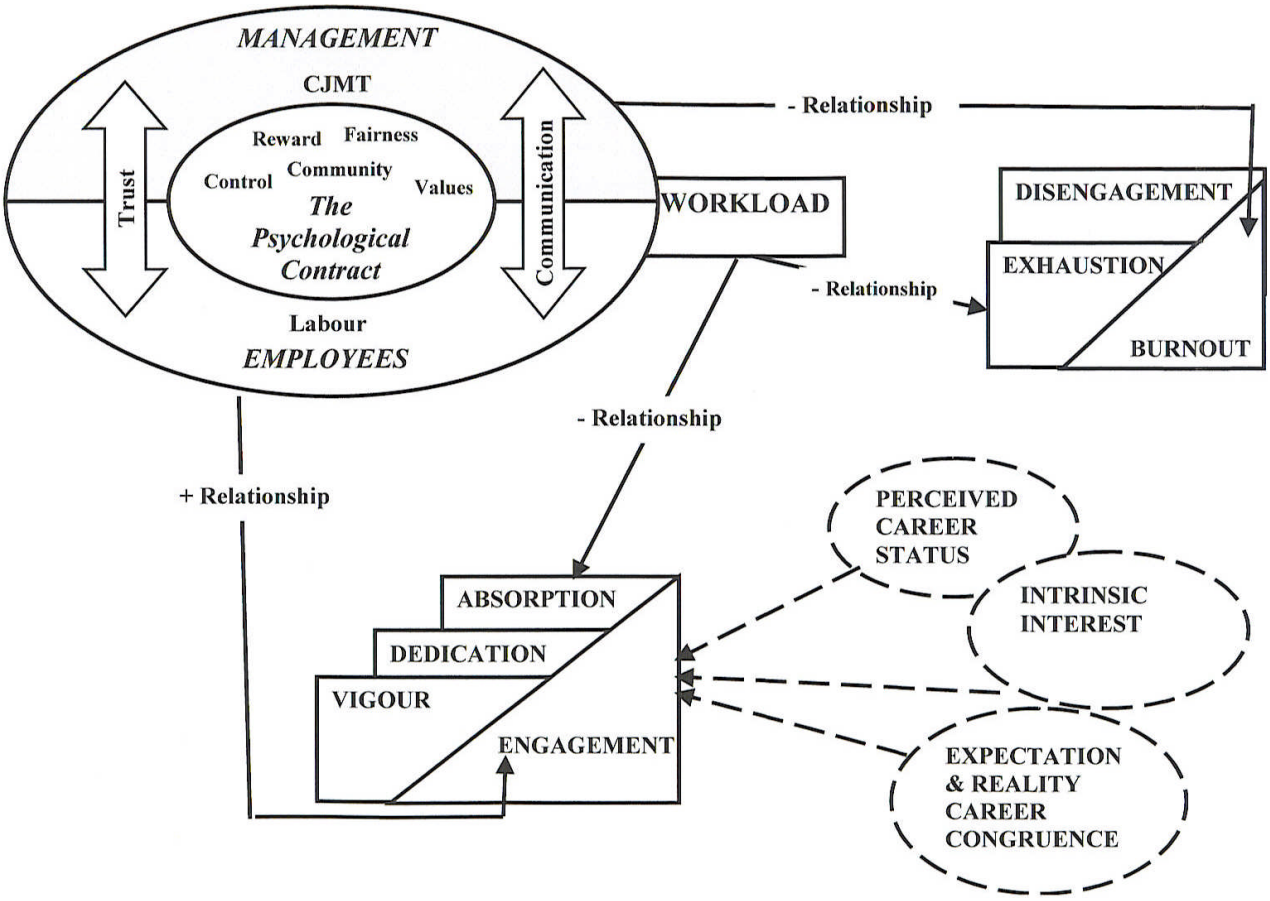


Figure 9.1. Revised model of the relationships between study variables

The reader is reminded that Reason researched the occurrence of accidents in hazardous industries and saw ‘active failures’ (such as fatigue, boredom or conditions on the day), combining with pre-existing latent failure to cause catastrophic events. While most workplaces do not get such stark feedback of their latent failures, they routinely experience major and expensive inconveniences from the fallout of worker burnout, such as absenteeism and staff turnover (Maslach &

Leiter, 1997; Maslach et al., 2001). Therefore non-hazardous industries are also severely impacted by disinclination of organisations to address latent failure.

As the research model did not explain the reported engagement of The Under Pressure Group, or the lack of engagement in spite of matches on the AWS reported by The Unengaged Match subgroup, it is hypothesized that other variables outside the parameters of the current study may well account for these apparent anomalies. The suggested variables have been portrayed with dashed lines to indicate they were not part of the current research. 'Perceived career status' was an item of concern to teacher interviewees in the current study, who perceived that teaching as a career was not awarded the esteem in the community that they had previously enjoyed. In regard to the 'intrinsic interest' suggested variable, some interviewees from the Under Pressure Group reported that, apart from reported problems with relationship and management dynamics in their place of work, their career was interesting of itself. The 'expectation and reality congruence' variable was included in Figure 9.1 in response to a comment from Gemma, from the Match subgroup of The Unengaged group, who indicated that the career expectations she encountered in her place of work were quite different to her expectations of what a journalism career would entail. In regard to this point, teacher respondents also reported incongruence that much of their time was involved in performing duties that had nothing to do with teaching children (see Chapter 3). It is possible that other variables may also contribute to engagement or lack of engagement of people in the workplace.

Redistribution of variables that were part of the present research portrayed in Figure 9.1 from the first model portrayed in Figure 1.1 will be discussed in the next few pages.

9.2.1 The Psychological Contract

Rousseau (1995) discussed the psychological contract in terms of mutual obligations between employers and employees. The present research did seek to ascertain respondents' understandings of the psychological contract by means of a qualitative question, "Three things I would expect from a job are…" (see survey document in Appendix A). Responses to this question were coded using the areas of worklife as a framework (see Appendix E) by two independent coders and entered into an SPSS file. When these were examined it was decided that the expectations closely mirrored items within the AWS (Leiter & Maslach, 1999) which describes responses in terms of 'match' or 'mismatch'. As this terminology implies prior expectation, it was recognised that the AWS is actually a measure of the psychological contract. The consistent close relationship of five of the variables (control, reward, community, fairness and values) within the path analyses (Chapter 7) also supports this modification of the research diagram. This was reflected by moving five of the scales to the central part of the diagram and noting that respondents in the current study indicated that their experiences of these variables follows a reasonably predictable pattern (see Figure 7.8).

One implication of this is that management personnel may also have some aspects of the AWS variables within their own psychological contracts. The current research supported this consideration in Chapter 2 where all respondents were managers of small business most of whom indicated that that their engagement with their work was related to the support, reward and control they found with their employees within their place of work. In addition, some of the interviewees in

Chapter 8 (Alex, Susan, Roger, Robert and Sarah) held middle management positions. These people indicated that their aspirations for their work were similar to those held by other people. It is noted that the CJMT variable remains within the management segment of the sphere. This is due to the power differential within workplaces that places decision making and approachability at the behest of management. Some examples of this working well came from interviewees Maggie and Philippa in Chapter 8. Examples of it not working so well come from interviewees Rose and Amy in Chapter 8.

As the psychological contract comprises reciprocal obligations between employers and employees (Rousseau, 1995), 'labour' has been added to the employees part of the diagram in Figure 9.1. This was not included in the research model, but was very much a feature of the current research. Consistent with some of the interviews reported in Chapter 2, it could be that 'loyalty' is another expectation management has of employees. However loyalty has not been added to the diagram at this stage because Kim and Mauborgene (1998, 2005) include employee loyalty as one of the beneficial outcomes of the strategic use by managements of procedural justice within the workplace.

It is noted that workload is not placed with the other AWS variables within the psychological contract in Figure 9.2. This is because all path analyses in Chapter 7 demonstrated that workload followed quite a different pathway to other AWS variables with an unswerving and strong association with exhaustion. It was also frequently associated with absorption. These direct relationships are therefore reflected in Figure 9.1. It is noted that the five variables remaining within the sphere

have to do with relationships within the workplace and that workload, which was taken outside the sphere, is not necessarily a relationship variable. Yet it has maintained a predictable relationship with exhaustion and absorption in the present study.

9.2.2 Trust and Communication

The two headed arrows labeled ‘trust’ and ‘communication’ are features of Figure 9.1. As the trust variable did not achieve invariance between respondents in the two phases of the survey (Chapter 6) it was not included in the path analyses of Chapter 7. However it is noted that the items in this variable did achieve reasonable reliability ($\alpha = .78$) and consequently it was used in the cluster analysis reported in Chapter 4, where it performed in a similar way to the management trustworthiness and procedural justice items. Respondents who indicated agreement with engagement variables also indicated agreement with trust and those who indicated agreement with burnout variables tended not to agree with trust in management. Respondents reported the health of communication in their organisations within a number of survey scales, for example, a community item, “members of my work group communicate openly” and a procedural justice item, “requests for clarification or additional information are allowed”.

9.2.3 Other Research Hypotheses

The other two original hypotheses stated that: firstly, perceptions of management trustworthiness and secondly, procedural justice would predict good worker adjustment in that there would be negative relationships between these two variables and exhaustion and disengagement from the OLBI (Demerouti et al., 2002). Procedural justice and the management trustworthiness variables were demonstrated

in Chapter 5 to be covering common ground rendering the hypotheses identical. While the hypothesis was supported by most respondents within the current research, one subgroup of The Unengaged Group (Match subgroup) did not support it. Respondents from this subgroup indicated matches on the areas of worklife and agreed that their managements were trustworthy; however, they reported ambivalence on the UWES (Schaufeli & Bakker, 2003) variables of vigour, dedication and absorption. This would seem to indicate a condition where there was an 'absence of disease' (Schaufeli, 2004, p. 503), rather than positive adjustment and optimal functioning in one's work (Schaufeli et al., 2006). However it must be acknowledged that the existence of individuals that do not fit the definition of burnout (OLBI) or engagement (UWES) does not negate the fact that the present research found groups of people who had opposite points of view in regard to engagement and burnout.

The Unengaged Group with its distinct profile of marginal endorsement of the UWES variable of vigour, ambivalence on dedication and dis-endorsement of absorption as well as the OLBI variables of exhaustion and disengagement has suggested that other factors may well be impacting on people's relationship with their work. These may well include individuals' disillusionment with their chosen career such as was apparent with the journalist interviewee Gemma, or with how that career is viewed within the community as was the case with Philippa the teacher. These people were experiencing favourable work environments but were still not engaged in their work. Likewise The Under Pressure Group who indicated agreement with the UWES variables of dedication, vigour and absorption (see Figure 6.2), but who also indicated that the AWS variables did not contribute to their work

engagement (see Figure 7.3) provide evidence that factors outside the current research parameters such as intrinsic motivation may well be also implicated in employee engagement.

9.2.4 Limitations of the current research

The current research is cross sectional in nature. Therefore all the findings, including those of the path analyses, cannot establish causality. It is anticipated that the findings encountered in this research will be subjected to further testing by means of longitudinal research with planned interventions. To that end the present research presents a starting point that may have some value for the future. In addition, it could be said that the small group interviews of Chapter two and the interviews of Chapter eight, are, because of the small numbers of subjects, unrepresentative of the populations they are purported to represent. It is noted however that qualitative findings are consistent with the quantitative findings in the present research.

It is unfortunate that copyright restrictions on the MBI (Maslach et al., 1996) meant that it was impossible to use this instrument in the current study. Previous research with the AWS had used the MBI (Leiter & Maslach, 2004). It is therefore possible that the outcome measures used in the current study; OLBI (Demerouti et al., 2002) and UWES (Schaufeli & Bakker, 2003) do not cover the same conceptual space occupied by the MBI, particularly in view of the fact that the OLBI does not include an efficacy scale. However it is noted that Halbesleben and Demerouti (2005) found that the OLBI was comparable in terms of validity and reliability with the MBI.

9.2.5 Implications of the current research

The current research has demonstrated that the areas of worklife model provided by Leiter and Maslach (1999, 2004, 2006) does provide a contextual framework for the discussion of engagement and burnout. The model was developed for testing with the Maslach Burnout Inventory (MBI) (Maslach, Jackson, Leiter & Schaufeli, 1996), which according to Leiter and Maslach (2004) measures *both* burnout and engagement. Therefore it is probably not surprising that the model has demonstrated more consistency in the prediction of burnout (The Burnout Experience 1 Group and The Severe Burnout Group) than it has with the UWES engagement variables of dedication, vigour and absorption in the current research.

The use of two separate scales to measure burnout (OLBI, Demerouti et al., 2002) and engagement (UWES, Schaufeli & Bakker, 2003) has demonstrated that there are aspects of engagement with work that lie beyond the realm of the immediate work environment. The current research suggests that intrinsic interest in the work itself may well be a contributor to job engagement. This point was demonstrated by the finding that The Under Pressure Group indicated that they were engaged in their work, without strong endorsement of the AWS variables or agreement with the CJMT. Another demonstration of the contribution of the work itself to engagement was found in The Unengaged Match subgroup that reported robust matches on AWS variables and agreement with the CJMT, but ambivalence in regard to two of the UWES variables (dedication and vigour) and dis-endorsement of absorption. These respondents indicated that they were not burned out.

It is therefore observed that in the current study that mismatches on the AWS variables and disagreement with the CJMT variable have predicted burnout in the The Burnout Experience 1 Group, and the The Severe Burnout Group (Respondents in these two groups represent 34% of respondents in the current research). Matches on the AWS variables and agreement with the CJMT also predicted work engagement in The Empowered Group, which represented a further 14% of survey respondents. This leaves the experience of 58% of survey respondents only partially explained by the research model. It is noted that many respondents who reported mismatch on AWS variables did not report that they were experiencing burnout, however the mismatches were nevertheless indicative of distress. Such distress was revealed in interviews with respondents from The Under Pressure Group and the Mismatch subgroup of The Unengaged Group. The current research also found more distress among interviewees from The Unengaged Group Match subgroup, who reported disillusionment with their choice of career.

9.2.6 Recommendation for Future Research

The current research has demonstrated support for the applicability of Leiter and Maslach's (2006) Areas of Worklife Model to the study of burnout in the workforce. However, the current study has also revealed that perhaps more emphasis needs to be placed on the influential role management plays in establishing the conditions within the workplace that will allow engagement of workers to thrive and prevent the development of burnout.

One surprising finding of the current research was that workers can experience engagement with their work without necessarily experiencing a suitable workplace environment (The Under Pressure Group). However, it is noted that the AWS

correctly predicted that these workers did articulate a sense of discomfort within their workplaces that clearly was incongruent with their values and expectations. Nevertheless, these employees were engaged with their work. This indicates that work engagement may be a broader construct, involving more influences, than worker burnout. As worker engagement is clearly a more desirable state, from the perspective of employers and employees alike, it is important that contributers to it are identified.

The current research identified a sizable proportion of respondents who reported that they were not engaged in their work, but they were not burned out. This provides support for Schaufeli and Bakker's (2004) finding that the two constructs are separate and correlate negatively. The AWS provided a framework that allowed distinction to be made within The Unengaged Group. The larger proportion of the group (60%) reported matches on the AWS, yet did not report engagement with their work, while 40% of the group reported mismatches on the AWS, yet did not report burnout. It is posited that further identification of such subjects within datasets may well provide researchers with the opportunity to investigate the environment of those who are experiencing an 'absence of disease' (Schaufeli & Bakker, 2004) and determine what lies between this state and that of employee optimimum well being in the workplace.

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Appendix A: Survey Instrument (key)

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Research Project:

Burnout and Engagement in the Organisational Context

Ethics Approval Number: H 2207

I am a PhD student in Psychology at James Cook University. My supervisors for this research are Dr Deborah Graham (Senior Lecturer) and Dr David Cottrell (lecturer) in the School of Psychology, Cairns Campus.

The aim of my research is to develop an understanding of the context in which people develop burnout or engagement with their work. This understanding is beneficial to organisational planning and to relationships within the workplace. I am anticipating that my research will help workers and management by providing a clearer picture of workplace dynamics.

I am seeking men and women who are currently employed and who are willing to participate in a survey. It will take about 30 minutes of your time. Only my supervisors and I will have access to data from individual participants.

The raw data obtained in this study must be kept in secure conditions at the university for 5 years, but NO findings which could identify any individual participant will be kept, made available to any organization or published.

If you have any queries or would like to be informed of the aggregate research finding, you may contact me at: Carolyn.Timms@jcu.edu.au

Should you have any queries or concerns abut the manner in which this research is being conducted, please do not hesitate to contact the Human Ethics Sub-Committee at James Cook University. Contact details are:

Tina Langford, Ethics Administrator,
Research Office
James Cook University
TOWNSVILLE, QLD 4811. Phone: (07) 47814342 Fax: (07) 47815521.

Yours faithfully,

Carolyn Timms

PART A: About You

1. Gender

Male	Female
O	O

2. Age Group

20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45-49 years	50-54 years	55-59 years	60+ years
O	O	O	O	O	O	O	O	O

3. Occupation

_____

4. What sort of organization do you work in?

Small business (less than 10 employees)	Small business 11-50 employees	Medium sized business 50-100 employees	Large privately owned business 100+ employees	Government owned business
O	O	O	O	O

5. How long have you worked at the organization where you now work?

Less than one year	1-4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30+ years
O	O	O	O	O	O	O	O

6. How long have you worked *in your present job* for this organization?

Less than one year	1-4 years	5-9 years	10-14 years	15-19 years	20-24 years	25-29 years	30+ years
O	O	O	O	O	O	O	O

7. What is your employment status?

Permanent *(full-time)*	Permanent *(part-time)*	Contract	Casual	Other (please indicate below)
O	O	O	O	O

Other employment status_____

8. Please indicate the number of hours you would work in a typical working week

a. At work _____

b. Overtime _____

c. At home or after hours (unpaid) _____

9. **Please indicate the organizational level you are currently at.**

Frontline staff	Supervisor	Management (1st level)	Management (intermediate)	Management (senior)
O	O	O	O	O

Other organisation level

---

10. In general, would you say your health is:

Excellent	Very good	Good	Fair	Poor
O	O	O	O	O

11. The next 12 questions are about how you generally respond to challenges in your life.

			Strongly Disagree	*Disagree*	*Hard to Decide*	*Agree*	*Strongly Agree*
a	effort	When I make plans, I am certain I can make them work	①	②	③	④	⑤
b	Pers **R**	I feel insecure about my ability to do things	①	②	③	④	⑤
c	Initiat **R**	If something looks too complicated, I will not even bother to try it	①	②	③	④	⑤
d	effort	If I can't do a job the first time, I keep trying until I can	①	②	③	④	⑤
e	Initia **R**	I avoid trying to learn new things when they look difficult	①	②	③	④	⑤
f	Pers **R**	When unexpected problems occur, I don't handle them well	①	②	③	④	⑤
g	Pers	I am capable of handling most problems that come up in my life.	①	②	③	④	⑤
h	Initiat **R**	When trying something new, I soon give up if I am not initially successful	①	②	③	④	⑤
i	effort	When I have something unpleasant to do, I stick to it until I finish it	①	②	③	④	⑤
j	Pers **R**	When I set important goals for myself , I rarely achieve them	①	②	③	④	⑤
k	effort	When I decide to do something, I go right to work on it	①	②	③	④	⑤
l	effort	Failure just makes me try harder	①	②	③	④	⑤

PART B: This section asks you about your experience of working in your current job.

			Strongly Disagree	*Disagree*	*Hard to Decide*	*Agree*	*Strongly Agree*
1.	Con 3	I have professional autonomy/independence in my work	①	②	③	④	⑤
2.	Con 1	I have control over how I do my work	①	②	③	④	⑤
3.	Rew 3 **R**	My efforts usually go unnoticed	①	②	③	④	⑤
4.	WL 6	I leave my work behind when I go home at the end of the day	①	②	③	④	⑤
5.	WL 4 **R**	I have so much work to do on the job that it takes me away from my personal interests.	①	②	③	④	⑤
6.	Fai 4	Management treats all employees fairly	①	②	③	④	⑤
7.	Con 2	I can influence management to obtain the equipment and space I need for my work	①	②	③	④	⑤
8.	Val 5 **R**	Working here forces me to compromise my values	①	②	③	④	⑤
9.	Com 4	Members of my work group communicate openly	①	②	③	④	⑤
10.	WL 2 **R**	I work intensely for prolonged periods of time	①	②	③	④	⑤
11.	Fai 3	There are effective appeal procedures available when I question the fairness of a decision	①	②	③	④	⑤
12.	Fai 2	Opportunities are decided solely on merit	①	②	③	④	⑤
13.	Rew 4 **R**	I do not get recognized for all the things I contribute	①	②	③	④	⑤
14.	Val 1	My values and the organization's are alike	①	②	③	④	⑤
15.	Com 1	People trust one another to fulfill their roles	①	②	③	④	⑤
16.	Rew 2	My work is appreciated	①	②	③	④	⑤
17.	WL 1 **R**	I do not have time to do the work that must be done	①	②	③	④	⑤
18.	Com 3	Members of my work group cooperate with each other	①	②	③	④	⑤
19.	WL 3 **R**	After work I come home too tired to do the things I like to do	①	②	③	④	⑤
20.	Rew 1	I receive recognition from others for my work	①	②	③	④	⑤
21.	Fai 5 **R**	Favouritism determines how decisions are made at work	①	②	③	④	⑤
22.	Com 2	I am a member of a supportive work group	①	②	③	④	⑤
23.	Fai 6 **R**	Its not what you know, but who you know, that determines a career here	①	②	③	④	⑤
24.	Val 3	My personal career goals are consistent with the organisation's stated goals	①	②	③	④	⑤

PART B: *continued.*

			Strongly Disagree	Disagree	Hard to Decide	Agree	Strongly Agree
25.	Com 5 **R**	I don't feel close to my colleagues	①	②	③	④	⑤
26.	Fai 1	Resources are allocated fairly here	①	②	③	④	⑤
27.	Val 2	The organization's goals influence my day to day work activities	①	②	③	④	⑤
28.	Val 4	This organization is committed to quality	①	②	③	④	⑤
29.	WL 5	I have enough time to do what's important in my job	①	②	③	④	⑤

Part C.a: *The following section asks about some feelings you may have in response to the experience of working in your current job*

			Never	Almost never	Rarely	Some-times	Often	Very Often	Always
1	V 14	I can continue working for very long periods of time	⓪	①	②	③	④	⑤	⑥
2	V 12	At my job, I feel strong and vigorous	⓪	①	②	③	④	⑤	⑥
3	De 1	I find the work that I do full of meaning and purpose	⓪	①	②	③	④	⑤	⑥
4	AB 6	It is difficult to detach myself from my job	⓪	①	②	③	④	⑤	⑥
5	AB 5	I get carried away when I am working	⓪	①	②	③	④	⑤	⑥
6	Vi 1	At my work, I feel bursting with energy	⓪	①	②	③	④	⑤	⑥
7	De 4	I am proud of the work that I do	⓪	①	②	③	④	⑤	⑥
8	Vi 6	At my work I always persevere, even when things do not go well	⓪	①	②	③	④	⑤	⑥
9	Vi 5	At my job, I am very resilient, mentally	⓪	①	②	③	④	⑤	⑥
10	De 5	To me, my job is challenging	⓪	①	②	③	④	⑤	⑥
11	AB 3	I feel happy when I am working intensely	⓪	①	②	③	④	⑤	⑥
12	De 3	My job inspires me	⓪	①	②	③	④	⑤	⑥
13	De 2	I am enthusiastic about my job	⓪	①	②	③	④	⑤	⑥
14	AB 2	When I am working, I forget everything else around me	⓪	①	②	③	④	⑤	⑥
15	Vi 3	When I get up in the morning, I feel like going to work	⓪	①	②	③	④	⑤	⑥
16	AB 4	I am immersed in my work	⓪	①	②	③	④	⑤	⑥
17	AB 1	Time flies when I am working	⓪	①	②	③	④	⑤	⑥

Part C. b. This section continues to ask questions about feelings you may have in connection with your present job, however the answer scale is different to the previous section.

			Strongly Agree	*Agree*	*Disagree*	*Strongly Disagree*
1	Dis	I always find new and interesting aspects in my work.	①	②	③	④
2	Ex **R**	There are days when I feel tired before I arrive at work.	①	②	③	④
3	Dis **R**	It happens more and more often that I talk about my work in a negative way	①	②	③	④
4	Ex **R**	After work, I tend to need more time than in the past in order to relax and feel better.	①	②	③	④
5	Ex	I can tolerate the pressure of my work very well.	①	②	③	④
6	Dis **R**	Lately, I tend to think less at work and do my job almost mechanically	①	②	③	④
7	Dis	I find my work a positive challenge	①	②	③	④
8	Ex **R**	During my work, I often feel emotionally drained.	①	②	③	④
9	Dis **R**	Over time, one can become disconnected from this type of work.	①	②	③	④
10	Ex	After working, I have enough energy for my leisure activities	①	②	③	④
11	Dis **R**	Sometimes I feel sickened by my work tasks	①	②	③	④
12	Ex **R**	After my work, I usually feel worn out and weary	①	②	③	④
13	Dis	This is the only type of work that I can imagine myself doing	①	②	③	④
14	Ex	Usually, I can manage the amount of my work well	①	②	③	④
15	Dis	I feel more and more engaged in my work	①	②	③	④
16	Ex	When I work, I usually feel energized	①	②	③	④

Part C.c.

Three things I would expect from a job are:

_____

_____

_____

_____

PART D: ***The purpose of this section is to examine your perceptions about workplace equity. When answering the following questions, think about the day-to-day decisions made about worker responsibilities, schedules, rewards and general treatment.***

When decisions about ***other members of staff*** in general, or ***you*** in particular are made in this organisation…..

		Strongly Disagree	*Moderately Disagree*	*Slightly Disagree*	*Neither Agree or Disagree*	*Slightly Agree*	*Moderately Agree*	*Strongly Agree*
1.	..requests for clarification or additional information are allowed.	①	②	③	④	⑤	⑥	⑦
2.	..you are treated with respect and dignity.	①	②	③	④	⑤	⑥	⑦
3.	.. you are dealt with in a truthful manner.	①	②	③	④	⑤	⑥	⑦
4.	..all the sides affected by the decisions are represented.	①	②	③	④	⑤	⑥	⑦
5	..the decisions are applied with consistency to the parties affected.	①	②	③	④	⑤	⑥	⑦
6.	..you are offered adequate justification for the decisions.	①	②	③	④	⑤	⑥	⑦
7.	..accurate information upon which the decisions are based is collected.	①	②	③	④	⑤	⑥	⑦
8.	…complete information upon which the decisions are based is collected.	①	②	③	④	⑤	⑥	⑦
9.	…opportunities are provided to appeal or challenge the decisions.	①	②	③	④	⑤	⑥	⑦
10.	…you are treated with kindness and consideration.	①	②	③	④	⑤	⑥	⑦
11.	…you are shown concern for your rights as an employee.	①	②	③	④	⑤	⑥	⑦
12.	…you are helped to understand the reasons for the decision.	①	②	③	④	⑤	⑥	⑦

Feel free to make a comment your experience of equity processes within your organization.

_____

_____

PART E: ***The purpose of this section is to examine your perceptions of the relationship that exists between workers and management. In this section think of the management of your organization.*** **(DO NOT COMPLETE THIS SECTION IF YOU HAVE NO ONE WHO IS SENIOR TO YOU IN YOUR ORGANISATION).**

			Strongly Disagree	*Disagree*	*Hard to Decide*	*Agree*	*Strongly Agree*
1.	Ab2	Senior management has specialized capabilities that can increase our performance.	①	②	③	④	⑤
2.	Ab 3	I feel very confident about Senior management's skills	①	②	③	④	⑤
3.	Int 3	Sound principles seem to guide Senior management's behaviour	①	②	③	④	⑤
4.	Tr 2 **R**	If I had my way, I wouldn't let Senior management have any influence over issues that are important to me	①	②	③	④	⑤
5.	Ben 4	Senior management really looks out for what is important to me.	①	②	③	④	⑤
6.	Int 5	I like Senior management's values	①	②	③	④	⑤
7.	Int 2	Senior management has a strong sense of justice	①	②	③	④	⑤
8.	Ab 6	Senior management is very capable of performing its job	①	②	③	④	⑤
9.	Tr 3 ***R***	I wish I had a good way to keep an eye on Senior management	①	②	③	④	⑤
10.	Ben 2	My needs and desires are very important to Senior management	①	②	③	④	⑤
11.	Ben 1	Senior management would not knowingly do anything to hurt me	①	②	③	④	⑤
12.	Int 1	I never have to wonder whether Senior management will stick to its word	①	②	③	④	⑤
13.	Int 6	Senior management tries hard to be fair in its dealings with others	①	②	③	④	⑤
14.	Tr 1	I would be comfortable giving Senior management a task or problem which was critical to me, even if I could not monitor their actions.	①	②	③	④	⑤
15.	Tr 4	I would be willing to let Senior management have complete control over my future career.	①	②	③	④	⑤
16.	Ben 5	Senior management is very concerned about my welfare	①	②	③	④	⑤
17.	Ab 1	Senior management is known to be successful at the things it tries to do	①	②	③	④	⑤
18.	Ab 4	Senior management has much knowledge about the work that needs to be done	①	②	③	④	⑤
19.	In 4 **R**	Senior management's actions and behaviours are not very consistent	①	②	③	④	⑤

PART E: *continued..*

			Strongly Disagree	Disagree	Hard to Decide	Agree	Strongly Agree
20.	Ben 3	Senior management will go out of its way to help me	①	②	③	④	⑤
21.	Ab 5	Senior management is well qualified	①	②	③	④	⑤

PART F: Please feel free to comment on any aspect of your work environment which has been brought to mind during the process of completing this survey. (If there is not enough room in the space provided please continue to write on the back of this page or attach extra sheets – I am very interested in what you have to say).

_____

_____

_____

_____

_____

_____

_____

THANKYOU VERY MUCH FOR YOUR CONTRIBUTION TO THIS RESEARCH!

The 2007 phase of this research will involve individual interviews with a number of people who have interesting contributions to make to this research. If you would be interested in participating in an interview with me about issues raised in this survey please indicate details by which I can contact you below:

First name (or nickname)_____

Phone or Email Address_____

Appendix B: 'I'm just a cog in the wheel'

Worker engagement and burnout in relation to workplace justice, management trustworthiness and areas of worklife.

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Abstract

Previous studies have indicated that burnout and engagement are more associated with the work milieu than individual characteristics of employees. The current study extended this theme and addressed perspectives of 561 respondents to a workplace dynamics survey. It was hypothesized that burnout, as measured by the Oldenburg Burnout Inventory (OLBI) and engagement with work, as ascertained by the Utrecht Work Engagement Survey (UWES) could be predicted by respondents' perceptions of their work environments. These were measured by responses to the Areas of Worklife Survey (AWS) and Procedural Justice measures, and also by Management Trustworthiness and Trust scales. Observed consistencies between two phases of the research, a pen and paper survey for teachers in non government schools in Queensland (n =297) and an online national (Australian) survey targeting workers in a range of industries (n =264) supported their amalgamation in the current study. K-means cluster analysis identified five distinct respondent profiles on the OLBI and the UWES. Subsequent Kruskal-Wallis analyses found significant differences between cluster groups on all other study variables. Patterns of variable distribution indicated clear support for all hypothesized relationships. In addition, support was found for Schaufeli and Bakkers' (2004) premise that Burnout and Engagement are not opposite poles of one construct.

Research into job burnout has recognized that it has more to do with its workplace context than with personal attributes of the individuals (Maslach, Schaufeli & Leiter, 2001). Job burnout is characterised by exhaustion, a feeling of being overwhelmed, over extended, emotionally and physically, so that a person feels chronically drained; and cynicism (called disengagement by Demerouti, Bakker, Vardakou & Kantas, 2002). Disengagement/cynicism is easily recognized in workplaces, people develop a cold distant attitude towards work, give up on their ideals, minimise their involvement and become negative (Maslach et al., 2001).

Sonnentag (2005) suggested that disengagement may be a coping mechanism, as individuals are prevented from obtaining 'down time' from their work. Similarly, Maslach et al. (2001) described cynicism flowing from the exhaustion experience, also suggesting a sequential progression of the burnout syndrome. On the other hand, others have seen its development as an emotional reaction to workers' doubts of organizational integrity (Abraham, 2000).

Worker engagement was thought by some (e.g. Leiter & Maslach, 2004) to be the polar opposite of worker burnout; whereas Schaufeli and Bakker (2004) saw engagement as a separate construct, negatively related to worker burnout. Worker engagement is characterised by three signature attributes: (1) dedication, a sense of pride in one's job; (2) vigour, high levels of resilience, energy and willingness to persevere; (3) absorption, being fully occupied and unreservedly engrossed in one's work (Schaufeli & Bakker).

Leiter and Maslach (2004) proposed that burnout and engagement be studied within a framework of matches or mismatches between

individuals and their work environment on six areas of worklife. These were: (1) workload, the amount of work one has to do within a given timeframe; (2), control, the amount of autonomy the worker has; (3), reward, recognition and affirmation; (4), community, a feeling of social belonging and support; (5) fairness, a spirit of mutual trust with the workplace; and finally (6) values, congruence of motivations and ideals.

Harvey, Kelloway and Duncan-Leiper (2003) found trust in management to be a vital 'buffer' helping prevent burnout among employees of a large accounting firm. Mayer and Davis (1999) described trust as a 'willingness to be vulnerable to the actions of another party' (p. 124), and described the situation where workers contracted to be vulnerable to the actions of employers. However an important component of the employment contract is the perception on the part of each party that the other is trustworthy. This is analogous to Rousseau's (1995) construct of the psychological contract as understandings which evolve as people develop working relationships which eventually become mental schemas that powerfully influence behaviour in the workplace. Mayer and Davis' (1999) descriptions of management trustworthiness included three factors: (1) ability, worker perceptions that management has the necessary strong competence to handle challenges of the job; (2) benevolence, worker perceptions that management is concerned about their welfare; and (3) integrity, worker perceptions that actions and rhetoric of management are congruent..

Parallel research into workplace justice (see Kim & Mauborgne, 1998) sought to provide information as to how management could achieve voluntary cooperation in the execution of major decisions. It was argued that individuals would demonstrate a high level of cooperation when they believed that the decision making processes within the organization were fair. Furthermore it was advanced that people, regardless of position on an organizational hierarchy, care a great deal about the justice of dealings by which decisions have been made in the workplace.

The current study seeks to combine these distinct insights into the workplace milieu and examine their possible relationships to worker engagement or burnout. It is therefore hypothesized that there will be significant positive relationships between perceptions of management trustworthiness, procedural justice and worker engagement. An additional aim of the current research is to further explore the current dialogue between researchers (e.g. Leiter & Maslach, 2004; Schaufeli & Bakker, 2004) as to possible polarity of burnout and engagement.

Method

Participants

The present study analyses responses from two phases of the same workplace dynamics survey. First phase respondents were teachers in independent schools (n=297) who completed a pen and paper survey randomly distributed through the Queensland Independent Education Union (QIEU) to 1000 members. There were 83 (28%) men, and 214 (72%) women respondents. Respondents' mean age fell within the 45-49 year age group.

Unlike the teachers' survey, the online version of the survey targeted responses from workers in a range of industries from all states of Australia. The online survey was active for six months, participants were sought by request in a number of ways including university press release. There were 264 responses to the online survey, 107 (40.5%) were from men and 157 (59.5%) were from women. The mean age of respondents fell within the 35-39 year age group. All states and territories within Australia were represented, however most respondents came from three states: Victoria (45%); Queensland (22%) and New South Wales (20.5%). In addition, online respondents represented 28 of the 35 major subgroups in the Australian Standard Classification of Occupations (ASCO) coding system (McLennan, 2006).

Materials

Information about measures used in the survey is summarized in table 1. Likert scales measured from 1 (strongly disagree) to the highest number (strongly agree) with the exceptions of the Oldenburg Burnout Inventory (OLBI), which went the opposite way (strongly agree to strongly disagree), and the Utrecht Work Engagement Scale (UWES) which measured from 0 (never) to 6 (always).

Table 1. Measures used in survey

Name of Measure and Variables	*Scale*	*No of Items*	*Source*
Areas of Worklife Survey (AWS)	5pt		Leiter & Maslach (2006)
Workload		6	
Control		3	
Reward		4	
Community		5	
Fairness		6	
Values		5	
Utrecht Work Engagement Scale (UWES)	7pt		Schaufeli & Bakker (2003)
Dedication		5	
Vigour		6	
Absorption		6	
Oldenburg Burnout Inventory (OLBI)			Demerouti, Bakker, Vardakou & Kantas (2002)
Exhaustion		8	
Disengagement		8	
Workplace Justice	7pt		Moorman, Blakely & Niehoff (1998)
Interactional Justice		6	
Procedural Justice		6	
Management Trustworthiness	5pt		Mayer & Davis (1999)
Ability		6	
Benevolence		5	
Integrity		5	
Trust in Management		4	

Results

K-means cluster Analysis

In order to capture the widest array of distinct profiles for the burnout and engagement dimensions, scores for exhaustion and disengagement (OLBI), and for dedication, vigour and absorption (UWES) were standardized and submitted to K-means cluster analysis. This was done to achieve a sense of what is common in the experience of those experiencing burnout or engagement.

The technique for K-means involves partitioning cases into n = k clusters, maximizing the differences between clusters and minimizing variance within clusters using euclidean distance between cluster centres (see Cortina & Wasti, 2005). It was deemed that the five cluster solution captured a wide array of distinct profiles. Convergence into five clusters was achieved in 20 iterations. Final numbers in clusters were 144 (25.6%) in cluster one, 143 (25.4%) in cluster two, 102 (18.1%) in cluster three, 116 (20.6%) in cluster four and 56 (10%) in cluster five. Table 2 provides information as to distances between final cluster centres.

Table 2. Euclidean distances between final cluster centres

Cluster	*1*	*2*	*3*	*4*
1				
2	2.70			
3	1.37	1.36		
4	2.09	1.33	1.27	
5	4.18	1.66	2.92	2.33

The distinctive nature of the clusters is plotted in Figure 1, where symbolic representations have been assigned to the variables. Because variable scales ranged from a four point scale (OLBI) to seven point scale (UWES), scores were standardized for purposes of visual comparison. Figure 1 demonstrates that individuals in cluster one (n= 144) and cluster two (n=143) indicated higher agreement with UWES variables than the OLBI variables, these groups were called En1 and En 2. Clusters four (n=116), five (n=56), and to a lesser extent, cluster three (n=102), revealed a clear burnout pattern with the OLBI dimensions of exhaustion and disengagement demonstrably higher than the UWES dimensions of dedication, vigour and exhaustion, these clusters were called Bu1, Bu2 and Bu3.

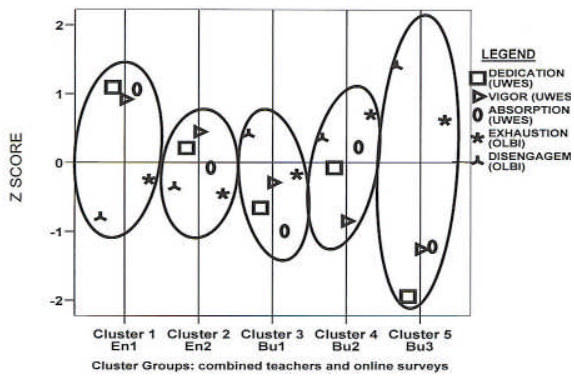

Figure 1. Cluster distribution of standardized engagement (UWES) and burnout (OLBI) variables

Management Trustworthiness and Procedural Justice within Cluster Groupings

The creation of cluster groups provided researchers with a categorical variable with which to further test variables supposed by the researchers to be related to the development of workplace engagement and burnout. Cluster distribution of the trustworthiness, trust and workplace justice measures were further examined using a sequence of Kruskal Wallis tests. Details of these tests are found in table 3.

Table 3. Kruskal Wallis tests between cluster groups for management trustworthiness, trust and workplace justice

Variables	*df*	χ^2
Management Ability	4	106.22***
Management Benevolence	4	136.69***
Management Integrity	4	117.57***
Trust in Management	4	96.98***
Interactional Justice	4	158.21***
Procedural Justice	4	138.57***

Note. *** $p < .001$

Areas of Worklife and Cluster Groups

In the same way, AWS variables were examined within the clusters using a sequence of Kruskal Wallis tests, these are found in table 4.

Table 4. Kruskal Wallis tests between cluster groups AWS variables

Variables	*df*	χ^2
Workload	4	93.16***
Control	4	141.93***
Reward	4	138.29***
Community	4	107.22***
Fairness	4	152.26***
Values	4	196.60***

Note. *** $p < .001$

Figures 2 and 3 provide visual comparisons of cluster patterns in the distribution of Management Trustworthiness, Procedural Justice and AWS variables.

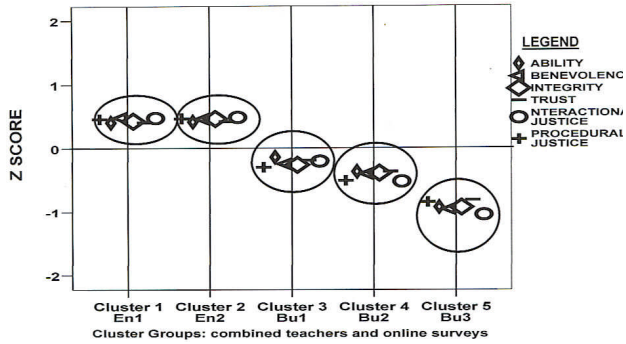

Figure 2. Distribution of Trustworthiness and Workplace Justice variables within Cluster Groups

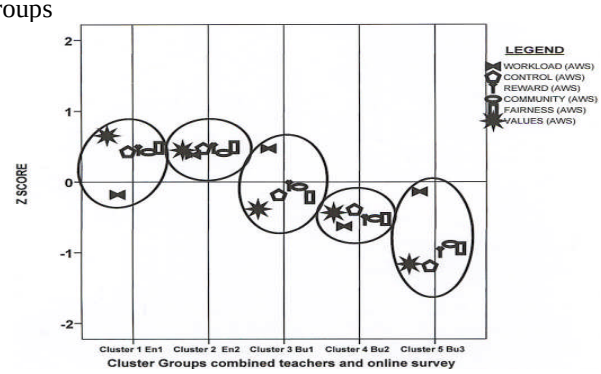

Figure 3. Distribution of AWS variables within Cluster Groups

Discussion

Hypothesized positive relationships between management trustworthiness (Mayer & Davis, 1999), procedural justice (Moorman et al., 1998) and engagement (Schaufeli & Bakker, 2003), and negative relationships between the variables and burnout (Demerouti et al., 2002) were supported by the distribution of the variables within cluster groups in the current study. Furthermore, the AWS (Leiter & Maslach, 2006) provided researchers with more contextual information as to conditions within the workplace environment. In addition, the cluster analysis process identified groups of individuals with particular response patterns in regard to the UWES and the OLBI and noted co variation of other study variables within the clusters.

Responses to management trustworthiness, trust and workplace justice measures were more positive within the first two clusters (En1 and En2) demonstrating higher responses on the UWES variables of dedication, vigour and absorption. This pattern was repeated in the AWS variables of control, reward, community, fairness and values, although En1

did not endorse workload. The three clusters, (Bu1, Bu2 and Bu3) which indicated higher responses to the OLBI variables of exhaustion and disengagement, revealed a consistent pattern of response to other variables.

En1 (cluster one) "the empowered ones"

En1 participants (n=144) indicated an engagement pattern. Examination of the management trustworthiness (Mayer & Davis, 1999) and procedural justice (Moorman et al., 1998) patterns shown by the clusters indicated that En1 respondents tended to agree that their management was trustworthy and that workplace justice procedures were in place. Further examination of the AWS (Leiter & Maslach, 2006) variables indicated that respondents in this cluster reported matches on all areas of worklife with the exception of workload.

En2 (cluster two) 'at risk'

The pattern of response for En2 (n= 143) was not as clear as that of En1. While scores for UWES and OLBI variables were in the same direction as En1 respondents, they hovered around the mean. This indicated less than enthusiastic endorsement or dis-endorsement of these variables. Comments from En2 respondents were along the lines of: "It's interesting to assess yourself and your boss. It seems I may be a bit jaded; and him too" *(male, journalist, En2).*

Bu1 (cluster three) "the unengaged'

While Bu1 respondents (n = 102) did not indicate agreement with the OLBI dimension of exhaustion, they did indicate agreement with disengagement. This is consistent with the views of Abraham (2000) that cynicism (called disengagement in the OLBI) rises as an emotional reaction to workers' doubts of management integrity. Certainly, comments from participants were along the lines of: "complete frustration with the games management plays with it's employees" *(female, nurse, Bu1).*

Bu2 and Bu3 (clusters four and five) 'the burnout experience'

Bu2 (n = 116) and Bu3 (n = 56) respondents indicated that they were experiencing burnout, with those in Bu3 suffering a more extreme experience. Those respondents who commented referred to their lack of reward and control, for example: "management is a top down process. I'm just a cog in the wheel for making money, no recognition and no thanks for extra efforts" (*female, teacher respondent to online survey, Bu2*). While it is impossible within cross sectional research to suggest a progression of experience it is interesting to note that Bu2 respondents reported higher means for exhaustion than disengagement and Bu3 respondents (who reported a more severe burnout experience) reported higher disengagement. This is supportive of previous indications from Leiter and Maslach (2004) and Sonnentag (2005) that disengagement (cynicism) develops in response to serious exhaustion and is a coping mechanism as the individual seeks to extract some meaning from the distress in their worklife.

Burnout and Engagement, 'Polar Opposites'?

Leiter and Maslach (2004) suggested that burnout and engagement were polar opposites (Maslach et al., 2001). However, it is interesting to note that Bu1 respondents indicated lack of agreement with both vigour (UWES) and exhaustion (OLBI), indicating that these people did not feel energised by their jobs, yet they were also not exhausted by them. In addition, Bu2 respondents reported similar means for absorption as they did for disengagement, indicating the possibility that people can find their job absorbing while feeling disengaged and cynical about aspects of it. This is consistent with Schaufeli and Bakker's (2004) view that engagement is not a polar opposite of burnout (Leiter & Maslach, 2004; Maslach et al., 2001), but rather a separate construct that is negatively correlated with it.

Limitations

The cross sectional nature of the present study has meant that while support can be advanced for previous studies, it is only possible to observe relationships between variables, rather than determine causal direction of those variables.

Conclusion

The workplace context in the current study was defined through the AWS (Leiter & Maslach, 2006) and management contributions were measured by perceptions of management trustworthiness (Mayer & Davis, 1999) and procedural justice (Moorman et al., 1998). Hypothesized relationships between the variables were supported, indicating that trustworthy management and procedural

justice, as well as matches on the AWS correlate positively with engagement of workers and negatively with worker burnout. Future directions of this research will focus on developing more detailed understandings of the workplace contexts in which burnout and engagement occur.

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Appendix C: Maximum Likelihood Factor Analyses of AWS, OLBI and UWES items

Explains 62.79% of variance

Extraction Method: Maximum Likelihood.

Rotation Method: Oblimin with Kaiser Normalization.

Rotation converged in 15 iterations.

Table C.1. Measures of Factorability

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.929
Bartlett's Test of Sphericity	Approx. Chi-Square	7662.280
	df	406
	Sig.	.000

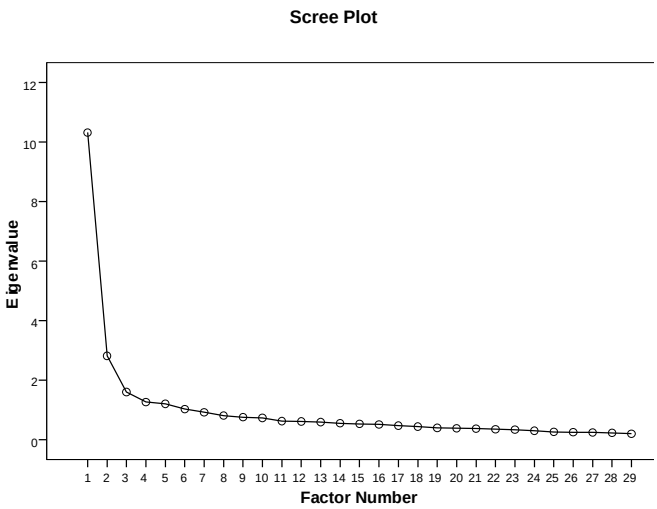

Figure C.1. Scree plot of AWS items

Table C.2. Factor Correlation Matrix AWS items

Factor	1	2	3	4	5	6
1	1.000	-.012	-.345	.290	-.380	-.496
2	-.012	1.000	-.205	.158	-.223	-.151
3	-.345	-.205	1.000	-.384	.441	.467
4	.290	.158	-.384	1.000	-.492	-.479
5	-.380	-.223	.441	-.492	1.000	.604
6	-.496	-.151	.467	-.479	.604	1.000

Extraction Method: Maximum Likelihood.
Rotation Method: Oblimin with Kaiser Normalization.

Table C.3. Pattern Matrix, factor loadings AWS items

Sn	Scale		Factor					
			1	2	3	4	5	6
B14	Val1	My values and the organisation's are alike.	***.525***	-.046	-.156	.194	-.003	-.186
B28	Val4	This organisation is committed to quality.	***.480***	-.002	-.071	.092	-.120	-.172
B15	Com1	*People trust one another to fulfill their roles.*	***.423***	.013	-.015	.401	-.045	-.018
B26	F1	*Resources are allocated fairly around here.*	***.408***	.094	-.060	.057	-.064	-.291
B24	Val3	My personal career goals are consistent with the organisation's stated goals.	***.354***	.014	-.242	.126	-.088	-.007
B8	Val5	Working here forces me to compromise my values (RS).	***.300***	.135	-.176	.276	-.018	-.097
B7	Cn2	*I can influence management to obtain the equipment and space I need for my work.*	***.245***	.015	-.198	.083	-.160	-.145
B27	Val2	The organisation's goals influence my day to day work activities.	***.220***	-.143	.022	-.023	-.127	-.061
B17	W1	I do not have time to do the work that must be done.	.069	***.806***	-8.19E	-.147	-.011	-.050
B29	W5	B29workload 5: I have enough time to do what's important in my job.	.281	***.696***	-.085	-.094	-.138	.094
B5	W4	B5workload 4 (reverse scored) I have so much work to do on the job that it takes me away from my personal interests.	-.122	***.651***	-.017	.089	-.007	-.002
B19	W3	After work I come home too tired to do the things I like to do (RS).	-.038	***.594***	-.077	-.029	-.044	-.123
B4	W6	I leave my work behind when I go home at the end of the day.	-.022	***.472***	.023	.033	.071	-.022
B10	W2	I work intensely for prolonged periods of time (RS).	-.049	***.441***	.048	.076	-.066	.046
B2	Cn1	I have control over how I do my work.	-.079	.008	***-.944***	.012	.007	.061
B1	Cn3	I have professional autonomy in my work.	-.014	-.024	***-.772***	-.050	-.020	-.057
B18	Com3	Members of my work group cooperate with each other.	.055	-.016	-.038	***.756***	.005	-.043
B9	Com4	Members of my work group communicate openly.	.048	.022	-.040	***.748***	.045	-.083
B25	Com5	I don't feel close to my colleagues (RS).	-.129	.004	.017	***.674***	-.135	-.004
B22	Com2	I am a member of a supportive work group.	.121	.008	-.018	***.664***	-.159	-.035
B3	Rew3	My efforts usually go unnoticed (RS).	-.012	.042	-.063	.001	***-.701***	-.129
B16	Rew2	My work is appreciated.	.132	.038	-.143	.070	***-.683***	-.001
B20	Rew1	I receive recognition from others for my work.	-.145	.002	-.068	.209	***-.668***	-.002
B13	Rew4	I do not get recognized for all the things I contribute.	.059	.146	.048	-.004	***-.579***	-.170
B23	F6	Its not what you know but who you know that determines a career here (RS).	-.078	-.005	-.041	.039	-.059	***-.807***
B21	F5	Favouritism determines how decisions are made at work.	-.066	.037	-.032	.077	-.082	***-.806***
B6	F4	Management treats all employees fairly.	.373	.049	-.035	.102	.002	***-.460***
B12	F2	Opportunities are decided solely on merit.	.134	.009	-.049	-.029	-.159	***-.399***
B11	F3	There are effective appeal procedures available when I question the fairness of a decision.	.229	.059	-.090	.196	-.003	***-.311***

Table C.4. Structure Matrix, item factor correlations AWS items

Sn	Scale		Factor 1	2	3	4	5	6
B14	Val 1	My values and the organisation's are alike	***.729***	.039	-.490	.489	-.468	-.607
B28	Val4	This organisation is committed to quality	***.662***	.073	-.404	.399	-.482	-.559
B26	F1	*Resources are allocated fairly around here*	***.613***	.168	-.405	.384	-.470	-.601
B15	Com1	*People trust one another to fulfill their roles*	***.571***	.087	-.345	.562	-.423	-.456
B24	Va3	My personal career goals are consistent with the organisation's stated goals	***.510***	.099	-.457	.369	-.398	-.410
B27	Va2	The organisation's goals influence my day to day work activities	***.286***	-.116	-.100	.102	-.195	-.204
B17	W1	I do not have time to do the work that must be done	.046	***.792***	-.161	.030	-.175	-.142
B29	W5	I have enough time to do what's important in my job	.280	***.712***	-.305	.153	-.334	-.228
B5	W4	I have so much work to do on the job that it takes me away from my personal interests (RS).	-.095	***.672***	-.147	.168	-.158	-.095
B19	W3	After work I come home too tired to do the things I like to do (RS).	.050	***.634***	-.251	.163	-.255	-.241
B	W	I leave my work behind when I go home at the end of the day.	-.042	***.460***	-.058	.068	-.046	-.045
B10	W2	I work intensely for prolonged periods of time (RS).	-.047	***.452***	-.062	.123	-.134	-.050
B2	Cn1	I have control over how I do my work.	.217	.193	***-.891***	.319	-.350	-.343
B1	Cn3	I have professional autonomy in my work.	.274	.140	***-.778***	.276	-.360	-.395
B22	Cm2	I am a member of a supportive work group	.397	.156	-.403	***.802***	-.562	-.519
B18	Com 3	Members of my work group cooperate with each other	.306	.116	-.361	***.802***	-.426	-.444
B9	Com 3	Members of my work group communicate openly	.302	.150	-.366	***.798***	-.413	-.460
B25	Com 5	I don't feel close to my colleagues(RS).	.114	.139	-.259	***.699***	-.413	-.337
B8	Val5	*Working here forces me to compromise my values (RS).*	.494	.230	-.466	***.507***	-.434	-.491
B16	Rew 2	My work is appreciated	.461	.229	-.525	.505	***-.839***	-.585
B3	Rew 3	My efforts usually go unnoticed (RS).	.340	.231	-.438	.435	***-.812***	-.583
B20	Rew` 1	I receive recognition from others for my work	.194	.199	-.395	.523	***-.748***	-.466
B13	Rew 4	I do not get recognized for all the things I contribute.	.344	.290	-.335	.384	***-.714***	-.547
B21	F5	Favouritism determines how decisions are made at work	.398	.196	-.458	.502	-.604	***-.880***
B23	F6	Its not what you know but who you know that determines a career here (RS).	.370	.145	-.431	.448	-.553	***-.842***
B6	F4	Management treats all employees fairly	.642	.136	-.427	.451	-.494	***-.717***
B12	F2	Opportunities are decided solely on merit	.401	.108	-.343	.300	-.460	***-.572***
B11	F3	There are effective appeal procedures available when I question the fairness of a decision	.472	.153	-.403	.456	-.427	***-.571***
B7	Cn2	*I can influence management to obtain the equipment and space I need for my work*	.470	.124	-.456	.381	-.473	-.498

Extraction Method: Maximum Likelihood.

Rotation Method: Oblimin with Kaiser Normalization.

UWES items

Explain 58.43% of variance

Table C.5. Measures of Factorability

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.904
Bartlett's Test of Sphericity	Approx. Chi-Square	4425.695
	df	136
	Sig.	.000

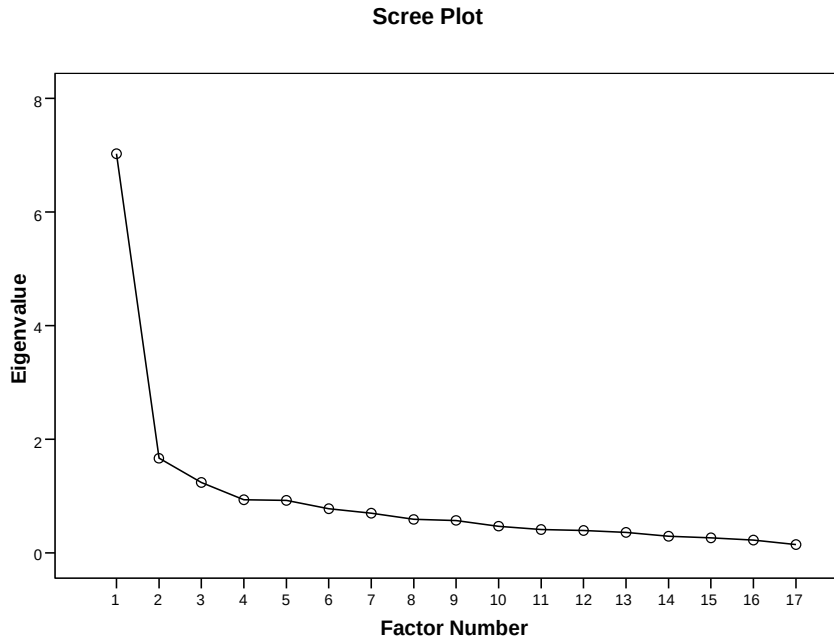

Figure C.2. Scree plot of UWES items

TableC.6. Factor Correlation Matrix

Factor	1	2	3
1	1.000	.592	.172
2	.592	1.000	.395
3	.172	.395	1.000

Extraction Method: Maximum Likelihood.

Rotation Method: Oblimin with Kaiser Normalization.

Table C.7. Pattern Matrix, factor loadings UWES items

Sn	Scale		Factor 1	Factor 2	Factor 3
Ca2	Vig2	At my job, I feel strong and vigorous	***.999***	.026	-.121
Ca6	Vig1	At my work, I feel bursting with energy	***.536***	.331	.018
Ca1	Vig3	I can continue working for very long periods of time	***.309***	-.002	.220
Ca13	Ded2	I am enthusiastic about my job	-.028	***.957***	-.049
Ca12	Ded3	My job inspires me	-.039	***.933***	-.035
Ca15	Vig3	When I get up in the morning I feel like going to work	.171	***.682***	-.073
Ca3	Ded1	I find the work that I do full of meaning and purpose	.180	***.616***	.049
Ca11	Ab3	I feel happy when I am working intensely	-.013	***.578***	-.074
Ca17	Ab1	Time flies when I am working	8.33E-005	***.539***	.171
Ca7	Ded4	I am proud of the work that I do	.028	***.531***	.090
Ca16	Ab4	I am immersed in my work	-.003	***.512***	.405
Ca10	Ded5	To me, my job is challenge	.015	***.502***	.227
Ca9	Vig5	At my job, I am very resilient mentally	.114	***.444***	-.157
Ca8	Vig6	At my work I always persevere, even when things do not go well	-.018	***.377***	.091
Ca4	Ab6	It is difficult to detach myself from my job	-.010	-.059	***.796***
Ca5	Ab5	I get carried away when I am working	.076	.155	***.622***
Ca14	Ab2	When I am working, I forget everything else around me	.033	.261	***.347***

Extraction Method: Maximum Likelihood.
Rotation Method: Oblimin with Kaiser Normalization.
a Rotation converged in 9 iterations.

Table C.8. Structure Matrix, item factor correlations

Sn	Scale		Factor 1	Factor 2	Factor 3
Ca2	Vig2	At my job, I feel strong and vigorous	***.993***	.569	.061
Ca6	Vig1	At my work, I feel bursting with energy	***.736***	.656	.241
Ca1	Vig4	I can continue working for very long periods of time	***.346***	.268	.272
Ca13	Ded2	I am enthusiastic about my job	.530	***.921***	.324
Ca12	Ded3	My job inspires me	.507	***.896***	.327
Ca15	Vig3	When I get up in the morning I feel like going to work	.562	***.754***	.226
Ca3	Ded1	I find the work that I do full of meaning and purpose	.553	***.742***	.323
Ca16	Ab4	I am immersed in my work	.370	***.670***	.607
Ca17	Ab1	Time flies when I am working	.349	***.607***	.384
Ca10	Ded5	To me, my job is challenge	.351	***.600***	.428
Ca7	Ded4	I am proud of the work that I do	.358	***.584***	.305
Ca11	Ab3	I feel happy when I am working intensely	.316	***.541***	.152
Ca9	Vig5	At my job, I am very resilient mentally	.351	***.450***	.038
Ca8	Vig6	At my work I always persevere, even when things do not go well	.221	***.403***	.237
Ca4	Ab6	It is difficult to detach myself from my job	.091	.248	***.770***
Ca5	Ab5	I get carried away when I am working	.274	.445	***.696***
Ca14	Ab2	When I am working, I forget everything else around me	.246	.417	***.456***

Extraction Method: Maximum Likelihood.
Rotation Method: Oblimin with Kaiser Normalization.

Burnout Variables

Explain 52.62% of variance

Table C.9. Measures of Factorability

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.894
Bartlett's Test of Sphericity	Approx. Chi-Square	2661.065
	df	120
	Sig.	.000

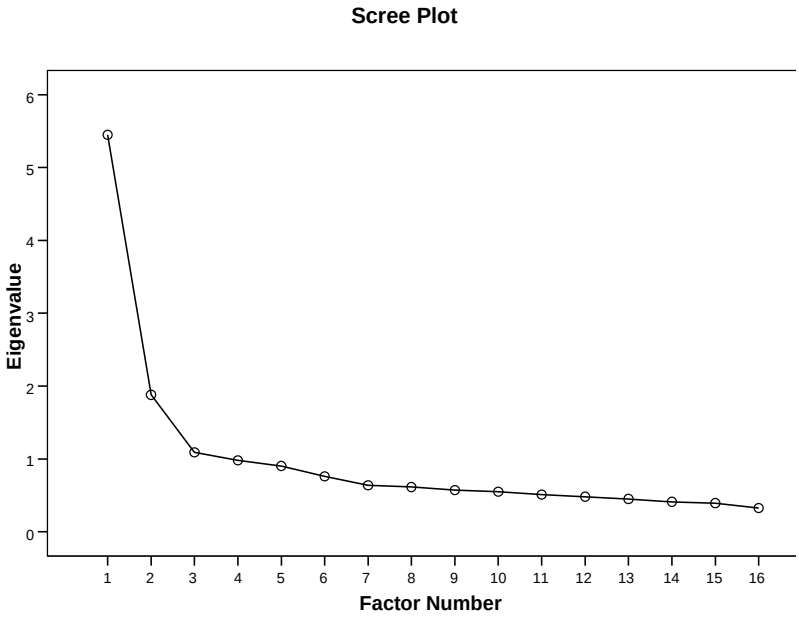

Figure C.3. Scree plot of OLBI items

Table C.10. Factor Correlation Matrix

Factor	1	2	3
1	1.000	-.346	-.358
2	-.346	1.000	.096
3	-.358	.096	1.000

Extraction Method: Maximum Likelihood.

Rotation Method: Oblimin with Kaiser Normalization.

Table C.11. Pattern Matrix, factor loadings OLBI items

Sn	Scale		Factor 1	2	3
Cb4	Ex2	After work, I tend to need more time than in the past in order to relax and feel better (RS).	***.720***	-.035	-.015
Cb8	Ex4	During my work, I often feel emotionally drained (RS).	***.667***	-.012	.052
Cb10	Ex5	After working I have enough time for my leisure activities.	***.646***	.150	-.200
Cb12	Ex6	After my work, I usually feel worn out and weary (RS).	***.623***	.112	-.083
Cb3	Dis2	*It happens more and more often that I talk about work in a negative way (RS).*	***.563***	-.367	.063
Cb2	Ex1	There are days when I feel tired before I arrive at work (RS).	***.549***	-.065	.039
Cb11	Dis6	*Sometimes I feel sickened by my work tasks (RS).*	***.416***	-.194	-.083
Cb5	Ex3	I can tolerate the pressure of my work very well.	***.411***	-.083	-.217
Cb15	Dis7	I feel more and more engaged by my work.	-.025	***-.636***	-.409
Cb7	Dis4	I find my work a positive challenge.	.242	***-.623***	1.79E-005
Cb1	Dis1	I always find new and interesting aspects in my work.	.051	***-.615***	-.080
Cb6	Dis3	Lately, I tend to think less at work and do my job almost mechanically (RS).	.179	***-.567***	.181
Cb9	Dis5	Over time, one can become disconnected from this type of work (RS).	.237	***-.474***	.115
Cb16	Ex8	*When I work, I usually feel energized.*	.222	***-.453***	-.297
Cb13	Dis7	This is the only type of work that I can imagine myself doing.	-.140	***-.353***	.010
Cb14	Ex7	*Usually, I can manage the amount of my work well.*	.178	.022	***-.608***

Extraction Method: Maximum Likelihood.
Rotation Method: Oblimin with Kaiser Normalization.
a Rotation converged in 9 iterations.

Table C.12. Structure Matrix, item factor loadings OLBI items

			Factor		
Sn	Scale		1	2	3
Cb4	Ex2	After work, I tend to need more time than in the past in order to relax and feel better (RS).	***.738***	-.286	-.276
Cb3	Dis2	It happens more and more often that I talk about work in a negative way (RS).	***.668***	-.556	-.174
Cb10	Ex5	After working I have enough time for my leisure activities.	***.666***	-.093	-.417
Cb8	Ex4	During my work, I often feel emotionally drained (RS).	***.653***	-.238	-.188
Cb12	Ex6	After my work, I usually feel worn out and weary (RS).	***.614***	-.112	-.296
Cb2	Ex1	There are days when I feel tired before I arrive at work (RS).	***.557***	-.251	-.163
Cb5	Ex3	I can tolerate the pressure of my work very well.	***.517***	-.247	-.372
Cb11	Dis6	Sometimes I feel sickened by my work tasks (RS).	***.513***	-.346	-.251
Cb7	Dis4	I find my work a positive challenge.	.457	***-.706***	-.146
Cb15	Dis7	I feel more and more engaged by my work.	.342	***-.666***	-.462
Cb1	Dis1	I always find new and interesting aspects in my work.	.293	***-.641***	-.157
Cb6	Dis3	Lately, I tend to think less at work and do my job almost mechanically (RS).	.310	***-.611***	.062
Cb16	Ex8	When I work, I usually feel energized.	.485	***-.558***	-.420
Cb9	Dis5	Over time, one can become disconnected from this type of work.	.360	***-.545***	-.016
Cb13	Dis7	This is the only type of work that I can imagine myself doing	-.021	***-.304***	.026
Cb14	Ex7	Usually, I can manage the amount of my work well	.389	-.099	***-.670***

Extraction Method: Maximum Likelihood.
Rotation Method: Oblimin with Kaiser Normalization.

Appendix D: Path Analyses - Tables

Table D.1. Regression weights, Standard Errors, Critical Ratios and probabilities of pathways in combined data set (n=515) (non significant pathways in italics).

From	*To*	*β*	*beta*	*S.E.*	*t*	*p*
Absorption	*Exhaustion*	*.07*	*.04*	*.02*	*1.74*	*ns*
Absorption	Vigour	.25	.23	.04	6.03	***
Community	Values	.23	.20	.03	5.92	***
Control	Community	.20	.21	.04	4.78	***
Control	Fairness	.25	.27	.04	7.18	***
Control	Reward	.55	.62	.04	14.72	***
Control	*Workload*	*.08*	*.08*	*.05*	*1.63*	*ns*
Dedication	Absorption	.64	.52	.03	17.97	***
Dedication	Disengagement	-.37	-.18	.02	-9.65	***
Dedication	Vigour	.47	.36	.03	11.06	***
Exhaustion	Disengagement	.31	.31	.03	10.46	***
Fairness	Values	.43	.37	.04	9.83	***
Reward	Community	.49	.46	.04	12.01	***
Reward	*Values*	*.07*	*.05*	*.03*	*1.56*	*ns*
Values	*Absorption*	*.03*	*.03*	*.04*	*.83*	*ns*
Values	Dedication	.44	.59	.06	9.80	***
Values	Disengagement	-.14	-.09	.02	-4.08	***
Values	Exhaustion	-.17	-.11	.02	-4.97	***
Values	Vigour	.08	.08	.04	2.06	.039
Vigour	Exhaustion	-.40	-.24	.02	-10.14	***
Workload	Exhaustion	-.51	-.31	.02	-15.44	***
Additional pathways to the model						
Absorption	Disengagement	-.20	-.12	.02	-5.81	***
Community	Fairness	.29	.30	.04	7.83	***
Control	Dedication	.21	.27	.06	4.72	***
Control	Values	.17	.16	.03	4.75	***
Control	Vigour	.14	.13	.03	3.97	***
Reward	Disengagement	-.14	-.07	.02	-4.34	***
Reward	Fairness	.38	.36	.04	9.85	***
Reward	Workload	.27	.23	.04	5.40	***
Workload	Absorption	-.34	-.36	.03	-10.93	***
Workload	Dedication	-.15	-.19	.05	-3.93	***
Workload	Vigour	.16	.15	.03	4.85	***

Note 1. *** p<.001
Note 2. β= standardised estimates, beta= un-standardised estimates, S.E. = Standard error.

Table D.2. Regression weights, Standard Errors, Critical Ratios and probabilities of pathways in new cluster one 'the empowered ones" (*non significant pathways in italics*).

From	*To*	*β*	*beta*	*S.E.*	*t*	*p*
Absorption	*Exhaustion*	*.08*	*.04*	*.06*	*.70*	*ns*
Absorption	*Vigour*	*.17*	*.14*	*.08*	*1.74*	*ns*
Community	Values	.23	.22	.09	2.45	.014
Control	*Community*	*.15*	*.13*	*.10*	*1.28*	*ns*
Control	Fairness	.30	.35	.12	2.98	.003
Control	Reward	.49	.56	.12	4.77	***
Control	*Workload*	*.10*	*.10*	*.10*	*.98*	*ns (removed)*
Dedication	Absorption	.31	.40	.14	2.88	.004
Dedication	Disengagement	-.32	-.23	.08	-2.985	.003
Dedication	Vigour	.46	.49	.12	4.21	***
Exhaustion	*Disengagement*	*.17*	*.20*	*.11*	*1.75*	*ns*
Fairness	Values	.62	.43	.07	6.04	***
Reward	*Values*	*.02*	*.01*	*.08*	*.16*	*ns*
Values	*Absorption*	*.04*	*.04*	*.13*	*.33*	*ns*
Values	Dedication	.46	.45	.10	4.37	***
Values	Disengagement	-.21	-.14	.07	-2.05	.041
Values	*Exhaustion*	*-.04*	*-.03*	*.06*	*-.41*	*ns*
Values	*Vigour*	*.05*	*.05*	*.12*	*.39*	*.ns*
Vigour	Exhaustion	-.31	-.17	.06	-2.80	.005
Workload	Exhaustion	-.44	-.20	.05	-3.74	***
Added Pathways						
Absorption	Disengagement	-.31	-.17	.05	3.16	***
Community	Vigour	.26	.25	.10	2.43	.015
Reward	Community	.43	.33	.09	3.73	***
Reward	Fairness	.46	.47	.11	4.17	***
Workload	Absorption	-.51	-.51	.10	-5.38	***
Joint predictor variables (correlation)						
Control	*Workload*	*.05*	*.02*	*.05*	*.42*	*ns*

Note 1. *** p<.001
Note 2. β= standardised estimates, beta= un-standardised estimates, S.E. = Standard error.

Table D.3. Regression weights, Standard Errors, Critical Ratios and probabilities of pathways in new cluster two 'under pressure' (n=110) (*non significant pathways in italics*).

From	*To*	*β*	*beta*	*S.E.*	*t*	*p*
Absorption	Exhaustion	.17	.10	.05	1.99	.047
Absorption	Vigour	.27	.23	.07	3.10	.002
Community	Values	.42	.34	.06	5.58	***
Control	*Community*	*.17*	*.18*	*.11*	*1.58*	*ns*
Control	Fairness	.24	.29	.11	2.61	.009
Control	Reward	.60	.70	.09	7.86	***
Control	*Workload*	*.16*	*.13*	*.08*	*1.64*	*ns (removed)*
Dedication	*Absorption*	*.16*	*.16*	*.10*	*1.68*	*ns*
Dedication	*Disengagement*	*-.11*	*-.07*	*.06*	*-1.25*	*ns*
Dedication	Vigour	.27	.23	.08	3.06	.002
Exhaustion	Disengagement	.21	.22	.10	2.28	.023
Fairness	Values	.45	.32	.06	5.80	***
Reward	*Values*	*.03*	*.02*	*.05*	*.39*	*ns*
Values	*Absorption*	*.01*	*.01*	*.08*	*.14*	*ns*
Values	*Dedication*	*.15*	*.12*	*.07*	*1.58*	*ns*
Values	Disengagement	-.27	-.13	.04	-3.00	.003
Values	Exhaustion	-.27	-.12	.04	-3.22	.001
Values	*Vigour*	*.10*	*.07*	*.06*	*1.18*	*ns*
Vigour	*Exhaustion*	*-.13*	*-.09*	*.06*	*-1.46*	*ns*
Workload	Exhaustion	-.39	-.19	.04	-4.77	***
Additional pathways						
Absorption	Disengagement	-.20	-.13	.05	-2.32	.020
Community	Fairness	.35	.40	.09	4.22	***
Reward	Community	.35	.33	.10	3.28	.001
Reward	Fairness	.19	.20	.10	1.95	.052
Joint predictor variables (correlation)						
Control	*Workload*	*.16*	*.07*	*.04*	*1.60*	*ns*

Note 1. *** $p<.001$
Note 2. β= standardised estimates, beta= un-standardised estimates, S.E. = Standard error

Table D.4. Regression weights, Standard Errors, Critical Ratios and probabilities of pathways in new cluster three 'the unengaged' *match subgroup* (n=95) (*non significant pathways in italics*).

From	*To*	*β*	*beta*	*S.E.*	*t*	*p*
Absorption	*Exhaustion*	*.09*	*.05*	*.05*	*1.02*	*ns*
Absorption	Vigour	.27	.25	.09	2.86	.004
Community	Values	.18	.18	.09	1.97	.049
Control	*Community*	*.07*	*.06*	*.09*	*.67*	*ns*
Control	*Fairness*	*.16*	*.13*	*.08*	*1.69*	*ns*
Control	Reward	.31	.30	.10	3.13	.002
Control	*Workload*	*-.01*	*-.01*	*.14*	*-.06*	*ns (removed)*
Dedication	Absorption	.30	.28	.09	3.20	.001
Dedication	Disengagement	-.34	-.18	.05	-3.55	***
Dedication	*Vigour*	*.08*	*.07*	*.08*	*.85*	
Exhaustion	Disengagement	.18	.19	.10	1.95	.051
Fairness	Values	.35	.38	.11	3.55	***
Reward	*Values*	*-.05*	*-.04*	*.08*	*-.48*	*ns*
Values	*Absorption*	*.06*	*.07*	*.10*	*.65*	*ns*
Values	*Dedication*	*.08*	*.10*	*.12*	*.80*	*ns*
Values	*Disengagement*	*-.07*	*-.04*	*.06*	*-.74*	*ns*
Values	*Exhaustion*	*-.01*	*-.01*	*.05*	*-.11*	*ns*
Values	*Vigour*	*-.04*	*-.04*	*.11*	*-.40*	*ns*
Vigour	Exhaustion	-.26	-.15	.05	-3.05	.002
Workload	Exhaustion	-.51	-.19	.03	-5.87	***
Additional Pathways						
Community	Fairness	.30	.27	.08	3.28	.001
Control	Dedication	.30	.30	.10	2.89	.004
Control	Exhaustion	-.22	-.11	.05	-2.49	.013
Control	Values	.25	.22	.08	2.76	.006
Fairness	Vigour	.43	.47	.12	4.05	***
Reward	Community	.21	.20	.10	2.03	.042
Reward	Fairness	.26	.22	.08	2.77	.006
Reward	Vigour	-.22	-.20	.09	-2.32	.020
Workload	Absorption	-.34	-.23	.06	-3.69	***
Joint predictor variables correlations						
Control	*Workload*	*-.01*	*-.00*	*.03*	*-.06*	*ns*

Note 1. *** p<.001 Note 2. β= standardised estimates, beta= un-standardised estimates, S.E. = Standard error.

Table D.5. Regression weights, Standard Errors, Critical Ratios and probabilities of pathways in new cluster three 'the unengaged mismatch subgroup (n=63) (*non significant pathways in italics*).

From	*To*	*β*	*beta*	*S.E.*	*t*	*p*
Absorption	*Exhaustion*	*-.12*	*-.06*	*.06*	*-1.03*	*ns*
Absorption	*Vigour*	*.12*	*.14*	*.12*	*1.11*	*ns*
Community	*Values*	*.03*	*.02*	*.11*	*.18*	*ns*
Control	*Community*	*.00*	*.01*	*.14*	*.04*	*ns*
Control	*Fairness*	*.15*	*.14*	*.10*	*1.35*	*ns*
Control	*Reward*	*.11*	*.13*	*.15*	*.86*	*ns*
Control	*Workload*	*-.13*	*-.13*	*.12*	*-1.03*	*ns (removed)*
Dedication	*Absorption*	*.12*	*.11*	*.11*	*1.03*	*ns*
Dedication	Disengagement	-.40	-.19	.05	-3.45	***
Dedication	Vigour	.37	.36	.11	3.31	***
Exhaustion	*Disengagement*	*.15*	*.15*	*.11*	*1.38*	*ns*
Fairness	*Values*	*.09*	*.09*	*.13*	*.63*	*ns*
Reward	*Values*	*.06*	*.04*	*.10*	*.42*	*ns*
Values	Absorption	.25	.23	.12	2.10	.036
Values	*Dedication*	*.23*	*.25*	*.13*	*1.91*	*ns*
Values	*Disengagement*	*.05*	*.02*	*.06*	*.42*	*ns*
Values	*Exhaustion*	*-.02*	*-.01*	*.06*	*-.21*	*ns*
Values	*Vigour*	*.13*	*.14*	*.12*	*1.13*	*ns*
Vigour	Exhaustion	-.23	-.11	.05	-2.12	.034
Workload	Exhaustion	-.53	-.24	.05	-4.93	***
Additional pathways						
Community	Dedication	-.26	-.22	.10	-2.18	.029
Community	Disengagement	-.40	-.15	.04	-3.52	***
Community	Fairness	.35	.28	.10	2.93	.003
Fairness	Vigour	-.27	-.28	.11	-2.49	.013
Reward	Community	.32	.31	.12	2.66	.008
Workload	Absorption	-.26	-.22	.10	-2.19	.029
Joint predictor variables (correlation)						
Control	*Workload*	*.13*	*-.04*	*.04*	*-1..01*	*.312*

Note 1. *** p<.001
Note 2. β= standardised estimates, beta= un-standardised estimates, S.E. = Standard error.

Table D.6. Regression weights, Standard Errors, Critical Ratios and probabilities of pathways in the burnout experience 1 (NC4, n=95) (*non significant pathways in italics*).

From	*To*	*β*	*beta*	*S.E.*	*t*	*p*
Absorption	*Exhaustion*	*.17*	*.09*	*.05*	*1.79*	*ns*
Absorption	*Vigour*	*-.02*	*-.02*	*.08*	*-.20*	*ns*
Community	Values	.34	.28	.07	3.84	***
Control	*Community*	*.17*	*.20*	*.11*	*1.88*	*ns*
Control	Fairness	.24	.24	.07	3.22	.001
Control	Reward	.26	.27	.11	2.56	.010
Control	Workload	.37	.30	.08	3.89	***
Dedication	Absorption	.25	.27	.10	2.66	.008
Dedication	Disengagement	-.24	-.13	.05	-2.62	.009
Dedication	*Vigour*	*.05*	*.04*	*.09*	*.44*	*ns*
Exhaustion	Disengagement	.20	.20	.09	2.22	.027
Fairness	Values	.43	.42	.09	4.49	***
Reward	*Values*	*.08*	*.07*	*.08*	*.87*	*ns*
Values	*Absorption*	*-.13*	*-.10*	*.08*	*-1.37*	*ns*
Values	*Dedication*	*.05*	*.04*	*.08*	*.49*	*ns*
Values	*Disengagement*	*-.05*	*-.02*	*.04*	*-.47*	*ns*
Values	*Exhaustion*	*-.03*	*-.01*	*.04*	*-.35*	*ns*
Values	*Vigour*	*-.03*	*-.02*	*.06*	*-.28*	*ns*
Vigour	*Exhaustion*	*-.11*	*-.08*	*.06*	*-1.23*	*ns*
Workload	Exhaustion	-.37	-.19	.05	-3.89	***
Additional pathways						
Community	Fairness	.31	.25	.07	3.61	***
Reward	Community	.47	.53	.10	5.20	***
Reward	Disengagement	-.32	-.12	.04	-3.04	.002
Reward	Fairness	.39	.36	.08	4.60	***
Workload	Absorption	-.24	-.23	.09	-2.53	.011

Note 1. *** p<.001
Note 2. β= standardised estimates, beta= un-standardised estimates, S.E. = Standard error.

Table D.7. Regression weights, Standard Errors, Critical Ratios and probabilities of pathways in the severe burnout group (NC5, n=79) (*non significant pathways in italics*).

From	*To*	*β*	*beta*	*S.E.*	*t*	*p*
Absorption	*Exhaustion*	*-.10*	*-.07*	*.07*	*-.90*	*ns*
Absorption	*Vigour*	*.11*	*.10*	*.09*	*1.10*	*ns*
Community	*Values*	*-.14*	*-.09*	*.07*	*-1.26*	*ns*
Control	Community	.24	.23	.10	2.39	.017
Control	Fairness	.38	.27	.06	4.35	***
Control	Reward	.31	.27	.09	2.88	.004
Control	Workload	.27	.23	.09	2.51	.012
Dedication	Absorption	.22	.19	.08	2.33	ns
Dedication	Disengagement	-.19	-.08	.04	-2.10	.036
Dedication	Vigour	.27	.19	.08	2.55	.011
Exhaustion	Disengagement	.25	.17	.07	2.60	.009
Fairness	Values	.35	.32	.11	2.97	.003
Values	*Absorption*	*-.11*	*-.12*	*.11*	*-1.11*	*ns*
Values	Dedication	.21	.28	.14	1.96	.050
Values	Disengagement	-.31	-.16	.05	-3.15	.002
Values	Exhaustion	-.19	-.14	.07	-2.03	.042
Values	*Vigour*	*-.02*	*-.02*	*.11*	*-.13*	*ns*
Vigour	*Exhaustion*	*-.17*	*-.14*	*.07*	*-1.88*	*ns*
Workload	Exhaustion	-.54	-.31	.06	-5.05	***
Additional pathways						
Community	Fairness	.18	.14	.07	1.99	.048
Control	Values	.32	.21	.07	2.82	.005
Control	Vigour	.38	.23	.07	3.26	.001
Reward	Fairness	.43	.36	.08	4.68	***
Reward	Community	.42	.46	.11	4.11	***
Reward	Disengagement	-.21	-.08	.04	-2.28	.023
Workload	Absorption	-.52	-.43	.08	-5.46	***
Workload	Fairness	-.26	-.22	.07	-3.14	.002
Workload	Reward	.22	.22	.11	2.07	.039
Workload	Values	.22	.17	.07	2.25	.025

Note 1. *** $p<.001$
Note 2. β= standardised estimates, beta= un-standardised estimates, S.E. = Standard error.

Table D.8. Correlation Table with recalibrated variables.

		Min	*Max*	*M*	*SD*	*1*	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*	*11*
1	*Exhaustion*	.85	2.84	2.00	.41	-										
2	*Disengagement*	1.00	4.00	2.33	.52	.48**	-									
3	*Vigour*	.00	5.59	2.96	.96	-.49**	-.64**	-								
4	*Dedication*	.00	6.00	3.84	1.18	-.31**	-.75**	.68**	-							
5	*Absorption*	.80	6.00	3.76	.94	.04(ns)	-.50**	.45**	.63**	-						
6	*Control*	1.00	5.00	3.76	.86	-.30**	-.44**	.41**	.38**	.18**	-					
7	*Workload*	.94	4.44	2.36	.92	-.54**	-.21**	.23**	.07(ns)	-.29**	.22**	-				
8	*Reward*	1.00	5.00	3.15	.92	-.46**	-.54**	.42**	.44**	.15**	.46**	.30**	-			
9	*Community*	1.00	5.00	3.54	.86	-.37**	-.46**	.36**	.36**	.17**	.37**	.14**	.60**	-		
10	*Fairness*	1.00	5.00	2.91	1.02	-.42**	-.49**	.38**	.38**	.18**	.42**	.24**	.67**	.59**	-	
11	*Values*	1.00	5.00	3.36	.91	-.40**	-.59**	.45**	.51**	.32**	.47**	.18**	.60**	.62**	.66**	-
12	*CJMT*	1.00	5.00	3.06	1.09	-.36**	-.51**	.37**	.42**	.24**	.38**	.15**	.59**	.56**	.73**	.75**

** Correlation is significant at the 0.01 level (2-tailed).

Appendix F:

Respondents' expectations of their work

Respondents were invited to provide information as to three expectations they had of a job. Responses to this section of the survey were qualitative as the researcher wished to establish a sense of participants' own expectations within the work environment. When these responses were analysed it was thought that they fitted within the parameters of the AWS, with some overflow into expectations of management. Information on the responses as coded is provided in the Table Sixty six people did not respond to this item, 34 of these were from the Teachers' survey and 36 were from the Online survey. Most responses took the form of a three word answer, for example, "equality, resources and friendships" seen by the researcher and an independent coder as aspects of fairness, control and community. However other respondents wrote three separate sentence answers that often spanned all six areas of worklife or multiple aspects of one area of worklife. When multiple aspects of one area of worklife were covered, first one mentioned by a respondent was recorded in SPSS. A breakdown on these responses can be found in Table E.

Table E. Coded responses from survey respondents on the question regarding their expectations of a job

Expectations of Workload (number of responses = 274)		
	Frequency	Percent
Time	75	27.4
Challenge	61	22.3
Professional Development	56	20.4
Variety/Interest/Enjoy job	49	17.9
Accomplishment/Career path/ Responsibility	33	12.0
Total	274	100.0
Expectations of Control (number of responses = 100)		
	Frequency	Percent
Resources (general)	65	65.0
Resources (personnel)	8	8.0
Autonomy	27	27.0
Total	100	100.0
Expectations of Fairness (number of responses = 161)		
	Frequency	Percent
Respect	97	60.2
Consistent and equitable rules	42	26.1
Clear communication	14	8.7
Clear structure	6	3.7
Fair distribution of work	2	1.2
Total	161	100.0

Table E (continued)

Expectation of Reward (number of responses = 212)		
	Frequency	Percent
Recognition	80	37.7
Appreciation	46	21.7
Acknowledgement	8	3.8
Reward (gen)	13	6.1
Remuneration	53	25.0
Personal Growth	12	5.7
Total	212	100.0

Expectation of Community (number of responses = 231)		
	Frequency	Percent
Collaboration (e.g. feedback)	55	23.8
Support	127	55.0
Fun, Enjoyment of Collegiality	7	3.0
Positive Relationships	42	18.2
Total	231	100.0

Expectation of Values (number of responses = 136)		
	Frequency	Percent
Meaningful work	34	25.0
Fulfillment/Job Satisfaction	81	59.6
Common Goals	10	7.4
Common Values	11	8.1
Total	136	100.0

Direct Expectations of Management (number of responses = 154)		
	Frequency	Percent
Integrity (management support)	128	83.1
Benevolence (approachable)	11	7.1
Benevolence (listening)	7	4.5
Ability (leadership)	8	5.2
Total	154	100.0