

A comparative study of engagement within an academical institution

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Abstract

One of the most valuable assets in any organisation is the employees, although a small percent of employees in organisations are truly motivated and energised. It is essential for organisations to look into the engagement of its employees.

This mini-dissertation focuses on a comparative study of the occupational wellness between lecturers and the technical IT support staff of an academic institution of the North West province in South Africa. The objectives were to determine and compare the engagement of employees in the categories mentioned above. Thereafter a comparison was made with specific aspects of the work and work environment.

Literary research was done in order to discuss and conceptualise terms such as wellness and health, occupational stress and occupational wellness. Thereafter the burnout and engagement concepts were discussed.

Empirical research was done by using questionnaires that were disseminated among the two different employee groups identified for the study. Firstly, the Work and Well-being questionnaire was used to determine the work engagement levels of the different groups. This questionnaire focussed on the vigour, absorption and dedication dimensions of the study sample. In this survey the reliability indicated that all the dimensions of engagement were accepted and that employees of the IT support staff group have an overall higher level of work engagement than the lecturer group. Secondly, the Job Resources questionnaire was used to evaluate how specific aspects of the work and work environment are experienced by both IT personnel and lecturing personnel. Results gained from the Cronbach's alpha coefficient method indicated that the questionnaire regarding factors like emotional overload, achievement, collegiality, supervision, information regarding performance and satisfaction with pay were indicated as reliable and accurate. The results from the Job Resources questionnaire indicated that emotional overload and feelings of achievement in the work environment is higher in the IT group than for lecturers. The rest of the factors tested were significantly equal for both groups.

The final chapter takes the information from the previous chapters to reach a conclusion. The key finding was that the IT sample has a higher level of absorption and dedication of engagement than the lecturer sample. Secondly, the findings were that the emotional

overload and achievement for the sample population is higher for the IT staff than the lecturing staff. The collegiality, supervision, information regarding performance and satisfaction with pay were at the same level for both the IT group and lecturer group.

Limitations were identified along with recommendations to the organisation and future research possibilities.

Key Words:

Burnout, Engagement, Vigour, Absorption, Dedication

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LIST OF ABBREVIATIONS

GDP	Gross domestic product
HR	Human Resources
IT	Information Technology
R	Rand
SA	South Africa

CHAPTER 1

NATURE AND SCOPE OF THE STUDY

1.1 INTRODUCTION

One of the most valuable assets in any organisation is the employees. Organisations struggle worldwide to meet production and service demands, because these demands are directly dependent on the ability, commitment and skills of employees. Only a small percentage of employees in organisations are truly motivated and energised. It is very important for organisations to consider the engagement of its employees, because this can have a huge influence on the organisation's productivity, profitability, customer service, retention of staff and workplace safety. One of the best ways to get an engaged employee workforce is through job satisfaction (Kimball & Nink, 2006).

To be able to succeed in a globalised competitive business world the occupational wellness of employees must be of equal importance as to those of the operations of the organisation. According to Dornan (2010:9-15), organisations across the globe tend to see wellness in the workplace as a human resource issue with little business importance, but when wellness is promoted in organisations high level results can be seen. For example:

- Organisations are performing competitively.
- Organisations are more productive.
- Employees are more engaged.
- Organisations are encouraging more creativity and innovation.
- Organisations are losing fewer employees.

Wellness of employees is clearly of importance for organisations to be effective. But worldwide, organisations fail to address wellness and see it as a low or even last priority. Wellness presents a huge challenge for employees in many workplaces (Dornan, 2010:9-15). Negligence of attention to employee wellness could lead to burnout.

If one considers the increasing amount of research that has been done all over the world on employees that suffer from burnout and show symptoms of emotional exhaustion,

depersonalisation, cynicism and lack of self-efficiency one can see that it can become a major global problem for organisations.

According to Fink (2000:395-397), burnout is not a stress reaction, which a person develops in response to specific incidents. He recalls that burnout is a cumulative stress reaction that is developed by ongoing occupational stressors. Examples of occupational stressors are:

- Stressor 1: Work Relationship.
- Stressor 2: Job security.
- Stressor 3: Work life balance.
- Stressor 4: Work overload.
- Stressor 5: Job dissatisfaction.
- Stressor 6: Job relocation.

Burnout can lead to serious effects on the organisation and individual employees. For example: It can lead to absenteeism, turnover and low morale. Employees will start to show symptoms of personal distress that diminishes mental abilities and decrease professional performance. Burnout can cause employees to have poor relationships with their co-workers which lead to misunderstanding and conflict. Employees become less creative and innovative in the work environment (Schaufeli, Maslach & Marek, 1993:171-172).

A negative way of doing business will occur if employees and employers do not deal with the above symptoms in an effective way. According to Master (2005:265), most organisations rarely accept responsibility for the occupational stress of employees. They see burnout as a personal problem and that this will not have a financial or strategic impact on the organisation and its productivity. Most organisations do not get involved in the support of employees suffering from burnout.

According to Fink (2000:397), the opposite of burnout is engagement where the employee has a positive mental state within the occupational domain. Engagement in work is the state where an employee is productive and fulfilled in his or her work. The symptoms associated with engagement are the opposite of the burnout symptoms. Engagement consists of:

- A state with high energy rather than exhaustion.
- A state with strong involvement rather than cynicism.
- A sense of efficacy rather than inefficacy.

This mini-dissertation focuses on the comparative study of the occupational wellness between academic teaching staff and the technical support staff of an academic institution of the North-West province in South Africa. The academic teaching sample used was firstly a group of personal with a primary role of lecturing. This personal was randomly picked from different faculties such as natural sciences, engineering and arts. Secondly a group of personal with a role of technical support was chosen from the department of information technology.

1.2 PROBLEM STATEMENT

Recent development in burnout research has been to expand the focus to the positive antithesis of burnout, rather than just focussing on the negative state that it represents. This positive state is called job engagement. The significance of the focus on job engagement is not simply theoretical, but practical. To prevent or deal with burnout in organisations, it is important to frame interventions in terms of the positive goals to be achieved, and not just the negative problems to be fixed (Halpern & Murphy, 2005:103).

It is essential for organisations to implement strategies to promote engagement and to implement burnout strategies to reduce the risk of burnout among employees. Burnout can occur in occupations engaging with people (for instance, as a lecturer) and also in occupations such as Information Technology (IT), working with machines and technology. The two different occupational fields that are compared in this study will be conceptualised below:

- **Information Technology (IT)**

IT as occupation can be classified as technical work that consists of monitoring and maintaining of computer and network systems of an organisation. Organisations rely increasingly on computer systems for all operations and decision-making in the business (Wortham, 2009). According to Salanova and Scheufeli (2000:385-392),

burnout due to information technology can be associated with the experience one has with the technology.

- **Lecturer**

According to Boudon (1981:44), the role of a lecturer can be divided into two sub-roles: firstly, the role of a teacher and secondly, the role of a researcher. Lecturing as occupation entails the facilitation of learning and carrying out research on an array of topics in an institution of academic education. Lecturers facilitate subjects on undergraduate and post graduate level (Norcott, 2009).

The economy of South-Africa relies on lecturers to grow and develop people and give them an education to close the unemployment and unskilled gap among the citizens of the country. According to Gold and Roth(1993:40-41), burnout is a problem in the teaching profession; creative and talented teachers have left due to burnout due to the fact that they are faced with criticism, overcrowded classrooms, poor working conditions and lack of emotional rewards.

These two occupations with different job descriptions were used in this study to identify the different levels of engagement among the teaching staff that deals with a lot of human interaction such as students and research issues in their work compared to the technical staff (IT workers) that deals with monitoring, and maintaining network and computer systems. These two groups with different challenges and work environments can equally lead to burnout that includes the following dimensions:

- **Emotional exhaustion** refers to the feelings of being overextended and depleted of emotional and physical resources and being incapable of work performance due to all energy that have been drained (Rothmann & Joubert, 2007:50).
- **Depersonalisation** refers to a psychological state in which the perception or experience of the self feels detached and unreal. One feels as if one is an outside observer of one's mental processes or body, as if in a dream (Leigh & Streltzer, 2008:181).

- **Cynicism** refers to the attitude of an employee characterized by frustration, hopelessness and disillusionment as well as distrust towards the organisation and other objects in the workplace (Andersson, 2006:1395:1396).
- **Low self efficiency** refers to persons that do not believe in themselves and their capability to perform a specific task (Gist, 1987:472).

But these dimensions can be countered by job engagement that has the following dimensions:

- **Vigour** refers to an employee that is characterised in his work as a person with high energy levels and mental resilience while working. This person is willing to invest effort in his or her work and will face difficulties in a positive manner (Bakker & Leiter, 2010:180-184).
- **Dedication** refers to an employee that is characterised by doing his or her work with a sense of significance. The employee is always enthusiastic and inspired about all aspects in his or her job. Other characteristics are inspiration and pride (Bakker & Leiter, 2010:180-184).
- **Absorption** refers to a person that is characterised by being concentrated and happy in one's work activities (Bakker & Leiter, 2010: 180-184).

1.3 PURPOSE OF THE STUDY

The purpose of the study is to compare the occupational wellness of employees engaging in technology support against employees engaged in lecturing. Firstly, a comparison is made between the two groups of employees in terms of work engagement regarding the symptoms of vigour, dedication and absorption. Secondly, the different characteristics of the work and work environment are compared.

1.4 OBJECTIVES OF THE STUDY

The objectives of this study can be divided into primary and secondary objectives, which are outlined below.

1.4.1 Primary objective

The primary objective of this study was to determine and compare the engagement of employees in two different occupational fields of an academic institution in the North-West province of South Africa.

The study compared engagement of employees in technical support as occupation to employees in education teaching as occupation within an academic institution. These two occupations were compared in terms of work engagement regarding characteristics such as vigour, dedication and absorption.

Thereafter a comparison was made with specific aspects of the work and work environment such as contact with colleagues, progression, role (over/under) load, mental overload, emotional overload, variety/skill use, achievement, influence in work, collegiality, supervision, expectations, information regarding performance, communication from department, participation, job security and satisfaction with pay.

1.4.2 Secondary objectives

The secondary objectives of this study were to:

- Conceptualise the wellness and health, occupational stress and occupational wellness from the literature.
- Discuss occupational burnout with its dimensions of emotional exhaustion, depersonalisation, cynicism and low self efficiency from the literature.
- Discuss work engagement with its dimensions of vigour, dedication and absorption from the literature.
- Discuss lecturers and IT workers in regard to occupational wellness from the literature.
- Evaluate and compare the specific aspects of the academic and technical work environment from the literature.

1.5 RESEARCH METHODS

The research methods used in this study is mainly a literature review and an empirical study.

1.5.1 Literature/theoretical review (content and sources of references)

The literature review of this dissertation focuses on previous research on wellness and health, occupational stress and the effect it has on organisations. Occupational wellness entails physical, emotional, intellectual, spiritual, social, environmental and occupational dimensions. Burnout comprises emotional exhaustion, depersonalisation, cynicism and low self efficiency dimensions. Work engagement has vigour, dedication and absorption dimensions at its core. The above concepts are followed by a discussion from the literature on supporting staff in information technology (IT) at an academic institution and the effect that burnout has on these persons. Lastly, a discussion follows about the teaching staff at an academic institution namely lecturers and the effect that burnout has on them.

The following search engines, databases and secondary sources were used: Google Student, EbscoHost, academic text books and journal articles.

1.5.2 Empirical study

1.5.2.1 Questionnaire design

Two separate questionnaires were used in this study to determine the following:

- Work engagement of an employee.
- Job resources: Aspects of an employee's work and work environment.

1.5.2.1.1 *Work and Well-being questionnaire (UWES)*

The first questionnaire (Schaufeli & Baker, 2003:52) consists of 17 questions (Appendix A) regarding the perception of a person in his or her work. The questionnaire was designed to gather data regarding the vigour, dedication and absorption dimensions of work engagement.

1.5.2.1.2 *Job Resources questionnaire*

The second Job Resources questionnaire (Jackson, 2004) that was used consists of 48 questions (Appendix B) with the purpose to obtain an accurate depiction of the work and work environment of employees. This questionnaire focuses on the following aspects: Work, collegiality, supervision, expectations, information regarding performance, communication from the department, participation, job security and extrinsic job satisfaction (remuneration).

1.5.2.2 *Study sample*

Participants from two different occupational fields of an academic institution in the North-West province in South Africa were asked to participate in the survey. The convenience sampling method was used. The study sample (n = 66) aimed to involve employees on all job levels of the two departments. The department is classified as:

- Academic teaching staff with a sample of (n = 33).
- Technical support staff with a sample of (n = 33).

1.5.2.3 *Gathering of data*

The participants were requested to complete the questionnaires in order to collect as much information on their perceptions towards work, resources and work environment. The questionnaires were personally handed out by the researcher and collected again after completion.

Information gathered focused mainly on the dimensions of engagement (vigour, dedication and absorption) and the resource aspects of work and work environment (work, collegiality, supervision, expectations, information regarding performance, communication from the department, participation, job security and satisfaction).

The collected data were used for the comparative study between the technical support staff (IT workers) and academic teaching staff (Lecturers).

1.5.2.4 Statistical analysis

Statistics of work engagement in terms of vigour, dedication and absorption dimension, and different job resources in terms of work, collegiality, supervision, expectations, information regarding performance, communication from the department, participation, job security and satisfaction were compared to enable the researcher to categorise the different levels of wellness between departments.

1.6 LIMITATIONS OF THE STUDY

Limitations were identified in the study such as questionnaire distribution with a 50% response from the sample group. Responses were influenced due to the nature and culture of the institution. Lecturing staffs were more widely spread than the IT staff. Attention should be given to the home language of the individuals completing the questionnaires. Translating problems might contribute to misunderstanding of some of the questions due to the questionnaires only distributed in English.

1.7 LAYOUT OF THE STUDY

Chapter 1: Problem statement and research proposal

This chapter refers to the introduction of the study together with the problem statement. Thereafter a discussion follows regarding research objectives and research methods employed. Finally, the limitations of the study are discussed along with the layout of the chapters.

Chapter 2: Literature review

In this chapter wellness, health, occupational stress, burnout and job engagement, and the different staff groups are discussed in regard to previous research.

Chapter 3: Empirical study

The empirical research study contains the questionnaires to determine the components that need to be included in the comparison of two different staff groups in terms of job engagement and aspects of their job environment. Secondly, the method used to gather the data is described. Lastly, an analysis of the results of the survey is done.

Chapter 4: Conclusions and recommendations

In this chapter conclusions and recommendations are made from the results of the empirical study and literature review to draw a comparison of the different staff groups and their wellness. Finally, recommendations were made for future research.

1.8 SUMMARY

This chapter entailed the introduction, problem statement and research objectives. The measuring instruments and research methods that were used in this study were explained. Thereafter the limitations of the study and a brief overview of the layout of the chapters followed.

Chapter 2 is an extensive literature review as outlined in this chapter.

CHAPTER 2

LITERATURE REVIEW

2.1 INTRODUCTION

The objectives of this chapter are to report on the literary research in order to discuss and conceptualise the terms that are used within the realm of wellness of employees in an organisation.

Firstly, the wellness and health concept is discussed; then the wellness continuum tool is explained to illustrate how to improve the health perspective. Furthermore, the wellness concepts were divided into physical, emotional, intellectual, spiritual, social, environmental and occupational dimensions. Thereafter, a discussion follows on the effect of wellness on the economy of the world and more specifically South Africa. Secondly, occupational stress will be conceptualised with the effects it has on organisations. In addition, some of the causes of occupational stress are identified. Thirdly the burnout concepts are explained and divided into emotional exhaustion, depersonalisation, cynicism and low self efficiency dimensions where the positive of burnout, known as engagement will be discussed along with its vigour, dedication and absorption dimensions. These opposite dimensions are compared.

Lastly, the effect that burnout has on the supporting staff in the IT department of an academic institution is discussed where after discourse follows on the effect that burnout has on teaching staff (lecturers) at the same academic institution.

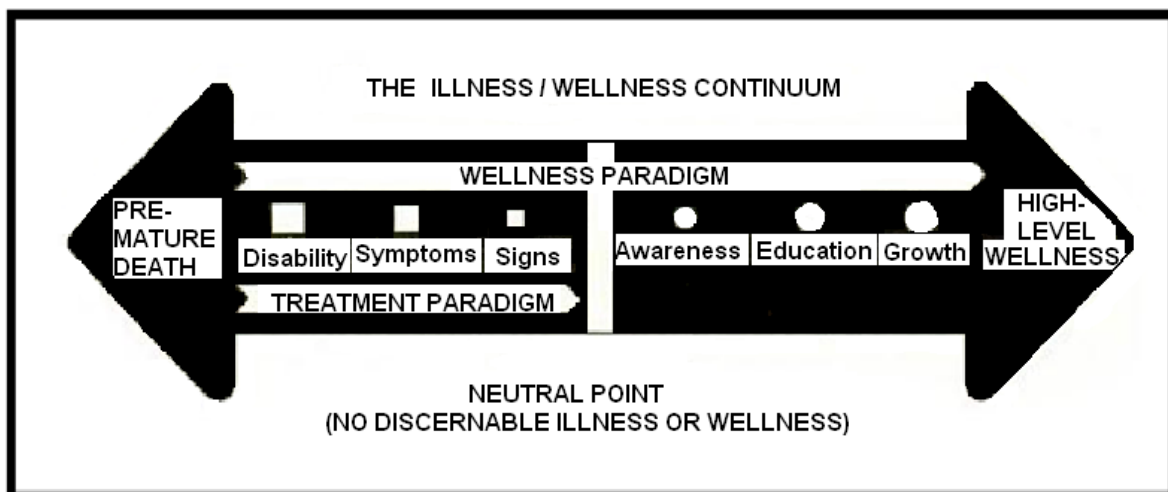
2.2 WELLNESS AND HEALTH

To understand the meaning of health one must know that health is not just the physical well-being of a person, but also the mental well-being. One needs to be aware that the mental well-being of a person can have a distinct influence on physical wellbeing.

The wellness continuum illustrated in Figure 2.1 is a tool, which is used to help people to embrace the perspective to create health. This tool consists of three areas (Forleo, 2008:27-28):

- **The Illness area** which illustrates the undesirable path to a premature death. The first thing that happens is that an individual gets pre-symptom signs of illness. After that the body will begin to show symptoms of illness. Finally, the individual will be in a disability continuum and will be separated from the ability to show health.
- **The Wellness area** which indicates the path to health. The starting point of wellness is to be aware of health. The next step is to be educated in one’s body, mind and spirit. Finally, the individual needs to grow – this is achieved by putting together the knowledge that has been learnt in the awareness and education stage.
- **The Neutral point area** which indicates the point where an individual is symptom-free. It is the point between wellness and illness. This is a state where there is no indications of illness.

Figure 2.1: Wellness continuum



Source: Forleo (2008:27)

It is essential for people to be aware of their wellness. According to Botha and Brand (2009:166), wellness is needed for any individual to maintain a continuum of balance and purposeful direction within the environment, which is needed to function on a daily basis. Wellness refers to a holistic approach in which mind, body and spirit are integrated in a

purposeful manner with the goal of living more fully within the human and natural community.

A decrease in wellness and health can lead to stress. According to Corpra (2002:928), almost everyone experiences stress on a daily basis. Stress is not a disease by itself although it can have an impact on the physical well-being. Stress can aggravate numerous conditions such as allergies, asthma, arthritis, colitis, gastritis, hypertension, diabetes, cancer and emphysema. Chronic stress results in a suppression of the immune system, which in turn creates increased susceptibility to illness.

According to Davis (2005:2-3), wellness can be split up in different segments known as wellness dimensions. These wellness dimensions need to be in balance, for an individual to have a productive and healthy life.

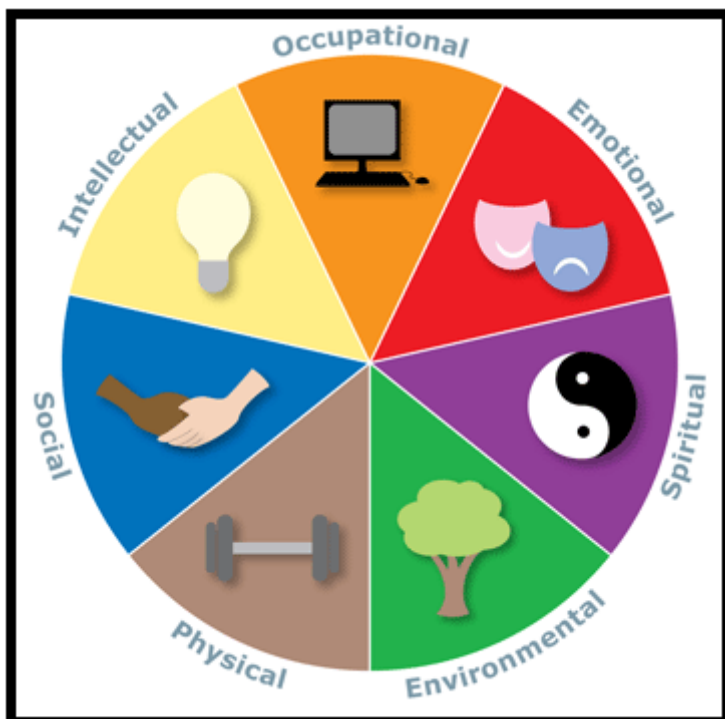
2.1.1 Wellness dimensions

Davis (2005:2-3) identifies seven dimensions of wellness, namely:

- Physical wellness.
- Emotional wellness.
- Intellectual wellness.
- Spiritual wellness.
- Social wellness.
- Environmental wellness.
- Occupational wellness.

The seven dimensions of wellness are illustrated in figure 2.2 and will be conceptualised below; these dimensions indicate how a person's wellness can be split up in different aspects.

Figure 2.2: Dimensions of wellness



Source: Davis (2005:3)

2.1.1.1 Physical wellness dimension

Physical wellness refers to the notion that a person has to maintain a healthy body and seek medical care when needed (Davis, 2005:2-3).

This area of wellness is the overall fitness of a person and the level of fitness describes how much the human body can take to complete physical tasks. Moreover, this dimension is more commonly associated with being healthy. Some of the components of physical wellness are muscular strengths, endurance, cardiovascular strengths and flexibility. Physically healthy individuals are physically active, exercise regularly, eat a well-balanced diet, maintain recommended body weight, get sufficient sleep, practice safe sex, minimise exposure to environmental contaminants and avoid drugs (including tobacco and alcohol). Physical wellness entails confidence and optimism in a person's ability to protect physical health and take care of existing health problems (Hoeger & Hoeger, 2009:13).

2.1.1.2 Emotional wellness dimension

Emotional wellness refers to the ability to deal with stress, one's ability to be flexible, and to have confidence towards the self and life in general. Aspects of wellness include self acceptance, self confidence, self control, and trust (Vallese, 2009:10).

Wellness further entails the emotional awareness of a wide range of feelings, not just in oneself but also in others. Furthermore, it implies the ability to express emotions appropriately, adjust to change, cope with stress in a healthy way, and enjoy life despite its occasional disappointments and frustrations. An emotionally well employee will accept any new challenges, take well calculated risks, and see conflict as being potentially healthy. Wellness gives a person the ability to accept change and to see failure in a positive way, and enables a person to move ahead with optimism and energy instead of worrying about the failures (Hoeger & Hoeger, 2009:13).

An emotionally well person is in control of his or her emotions. Being in control of your emotions puts you in charge of your destiny and increases the trust and respect you earn from others (Sanow, 2004:7).

2.1.1.3 Intellectual wellness dimension

Intellectual wellness refers to a person's ability to think and learn from life experiences, a person's openness to new ideas, and the capacity to question and evaluate information (Hales, 2007:4).

This dimension of wellness implies that a person can apply the knowledge that was learned, create opportunities to learn more, and engage their mind in lively interaction with the world around them. When an individual is intellectually well, they are not intimidated by facts and figures that they are not familiar with. Instead, they embrace the chance to learn something new. By having good intellectual wellness a person will have the power to deal with problems in a more effective way. Furthermore, this dimension also implies that a person has a sense of control to believe in their competence and confidence to achieve more in life (Hoegen & Hoegen, 2009:14).

In the end, it means that a person sees reality as it is, and not what he or she wants it to be.

2.1.1.4 Spiritual wellness dimension

Spiritual wellness does not mean belonging to a formal religion. It is an essential component to believe in some meaning or order in the universe. Spiritual wellness entails the development of help in the seeking of meaning and purpose (Hales, 2007:4).

This wellness dimension refers to a person that combines his or her beliefs and values with his or her own actions on a daily basis. Basic characteristics of spiritual people include a sense of meaning and direction in life and a relationship to a higher being. Pursuing this dimension of wellness may lead to personal freedom, faith, love, closeness to others, peace, joy and fulfilment. A person can develop his spiritual wellness by focussing on respect, honesty, religion and diversity. This dimension of wellness can help a person to respect himself and other people. If an individual has respect for himself and other people, he will be able to do the right thing at the right time. When a person is honest in every activity in life, people will trust and respect the decisions that have been made by them. Religion is an aspect in a person's life where an individual strives to achieve a bigger purpose. Diversity can develop more awareness of different views and aspects in the world. Spiritual wellness has a unifying power that integrates all the dimensions of wellness (Hoegen & Hoegen, 2009:14-15).

2.1.1.5 Social wellness dimension

Social wellness refers to the ability to interact effectively with other people and the social environment and to develop satisfying interpersonal relationship. This wellness dimension is associated with the performance of social roles effectively, comfortably and creates a support network (Hales, 2007:5).

It is essential for a person to have a positive relationship with other people. This relationship leads to friendship which is the basis of a support system that will help a person to overcome difficult situations that they may face. Moreover, this dimension of wellness can help to overcome many physical and mental obstructions in life. The basis of social wellness is to communicate with people, in a manner where a person can

understand the other person's viewpoint and vice versa. The social wellness dimension with its accompanying positive self-image, endows a person with the ease and confidence to be outgoing, friendly and affectionate towards others. Social wellness involves a concern for oneself and also an interest in humanity and the environment as a whole (Hoegen & Hoegen, 2009:14).

2.1.1.6 Environmental wellness dimension

Environmental wellness refers to the impact that a person's world has on his or her wellbeing. It means protecting oneself from dangers in the water, air and soil. This dimension is to respect the delicate balance between the environment and the self (Hales, 2007:5).

This dimension of wellness is the effect that a person's surroundings have on their wellbeing and plays a big role in the overall wellness. The planet is a delicate ecosystem, and its health depends on the continuous recycling of its elements. This wellness implies a lifestyle that maximises harmony with the earth and takes action to protect the world around them. A person's environment can have a huge impact on how a person feels overall. Environmental threats include air pollution, chemicals, ultraviolet radiation in the sunlight, water and food contamination, second-hand smoke, inadequate shelter, unsatisfactory work conditions, lack of personal safety and noise pollution. A person's health is affected in a negative way, when the environment is polluted, toxic, unkind and unsafe. A person must be in harmony with the environment and be responsible of the impact one's actions can have on the environment (Hoegen & Hoegen, 2009:15).

2.1.1.7 Occupational wellness dimension

Occupational wellness is being able to enjoy what you are doing to earn a living and contribute to society. Furthermore, this dimension refers to a person that enjoys his or her occupational endeavours and appreciates their contributions (Sanow, 2004:7).

This area of wellness leads to personal satisfaction at work. It is not tied to a high salary, prestigious position or extravagant working conditions. By having personal satisfaction an employee's attitude will change regarding feelings towards the work and they are more

willing to gain skills in the work environment. By doing this you will contribute to the organisation (Hoegen & Hoegen, 2009:15).

According to Anspaugh (2000:494), occupational wellness can be described as the balance between work and leisure time. Furthermore, this dimension of wellness refers to a person's ability to handle stress at work which they are dealing with every day. Work can be stressful due to all the things that are depending on an employee; this may cause a decrease in the employee's concentration and lead to a low level of occupational wellness. Ultimately, it is getting the work done and having fun while doing it. By having fun at work and not stressing about things can give employees a higher level of concentration and productivity.

The stress that a person experiences in the work environment can be classified as occupational stress.

2.1.2 Wellness of the world and South Africa

The wellness level of employees in the world in general and more specifically in South Africa is a major problem that employers have to face on a daily basis. The problem is when there is a decrease of wellness and health of employees. A decrease of wellness and health will lead to lower productivity in organisations. In the end there will be a decrease in the economy of the world, or closer to home, in South Africa, due to wellness and health decrease.

Worldwide, over two million lives are claimed annually, due to work related accidents and illnesses. In the same period of time 160 million illnesses and 270 million accidents were reported. These accidents and illnesses that have been reported, have led to 4% of the cost of the global economy of Gross Domestic Product (GDP) annually. In South Africa the amount of cost to GDP is in the region of 3.5% (Sieberhagen, Rothmann & Pienaar, 2009).

By looking at this number of accidents and illnesses that occurred in jobs all over the world and in South Africa, one can understand the effect that wellness has on an economy.

2.2 OCCUPATIONAL STRESS

Occupational stress is known as the harmful physical and emotional responses that occur when requirement of the job does not match the capabilities, resources or needs of workers. This stress is chronic conditions caused by situations in the workplace that may have a negative effect on the individual when a person experiences ongoing stress at the workplace (Yahaya, Arshad, Ismail & Zakariya, 2009:391-392). Occupational stress in organisations has become a source of interest for the last six decades, due to the fact that so many employees all over in the world suffer from it.

It can lead to negative effects such as health problems, lower productivity, diminishing levels of customer service and misuse of alcohol (Van der Colff & Rothmann, 2009). Blix, Cruise and Mitchell (1994) claim that occupational stress is one of the ten leading work-related health problems, and the economic impact that stress has on organisations has lead to the loss of millions of Rands(R) due to lower levels of productivity and the increase of absenteeism among employees.

According to Cooper and Antoniou (2005:544-545), job stress has been recognised as a significant occupational hazard which can impair both health and work performance. The employee's internal experience of stress is assumed to play a mediating role between impact of the job stressors and the work-related outcomes such as absenteeism or illness.

Stress can have the following effects on an organisation (Stranks, 2005:13):

- There is an increase in the amount of complaints from clients.
- Employees are losing their commitment to the success of the organisation.
- Accidents in the organisation increase.
- Staff turnover in the organisation increases.
- Levels of absenteeism increase in the organisation.
- There is a reduced performance by the employees in the organisation.

All of these effects are not just bad for the employees but also lead to bad organisational performance. This can become a major problem if employers and managers do not react in a proactive manner (Stranks, 2005:13).

Occupational stress can be caused by a number of stressors that an employee experiences in the work environment.

2.2.1 Causes of occupational stress

Occupational stress can be caused by stress factors in the work environment. Furthermore, this kind of stress is recognised globally as a major challenge to workers' health and the wellness of their organisations. These work related stress factors can lead to health problems, low productivity and low services. Organisations with stressed workers are less likely to be successful in a competitive market (Leka, 2003:3).

Events or conditions that cause stress in the workplace are called stressors. Some of the stressors that can occur in a work environment are as follow:

Stressor 1: Work relationship

Relationships with colleagues and managers are an essential part of a person's work environment due to the fact that a person spends a lot of time at work surrounded by these people.

According to Doyle, Hanks and Calman (2005:995), support from colleagues has been found to be very important for dealing with work related stress. This stressor is caused by pressure of relationships as well as the lack of social support in certain situations.

If a person cannot communicate to his colleagues in a healthy way and there is mistrust in the communication, it could lead to the decrease of physical health of a person (Cooper & Cartwright, 1994:469). It is essential for employees to get support from their co-workers and supervisors, because these supports relationships act as a protective buffer between work stress and burnout (Lingard & Francis, 2006:186-187).

Stressor 2: Job security

Job security is another factor that can cause stress and thus can be seen as a stressor. Someone in a relatively secure job is not likely to worry unduly about losing that position.

Threats to job security can increase stress dramatically. Stress generally increases throughout an organisation during a period of layoffs or immediately after a merger with another firm (Griffin & Moorhead, 2010:171).

According to Bakke (2005:62), we need to design organisations that encourage people to look beyond job security and seek psychological rewards that come with creative, enterprising approaches to work. Many of the world's largest organisations are filled with people trapped in the dead-end goal of seeking security. It is the enemy of joy at work.

Stressor 3: Work-life balance

Balancing your work-life with your family life has become a major issue in today's workforce. The problem is that employers want more work to be done in lesser time with fewer employees. This scenario increases employees' stress to cope with the demands of professional careers, child rearing and home management. While work-home strain is experienced by both female and male employees (as men assume more family-care responsibilities), it is often felt most strongly by women. Work-family strains have become a special concern for organisations with large numbers of professional and managerial women in their mid-thirties who have achieved positions of considerable responsibilities and are considering or just starting a family (Hall & Richter.1989:213).

Reducing work-life conflict and increasing work-life interaction is currently a priority for many companies, whereas for others it will become increasingly important for establishing competitive advantage and for ensuring a productive workforce. Many of the challenges surrounding work-family and work-life interaction imply that organisations will need to define more broad-reaching methods for accommodating individual needs for employees to achieve effectiveness in both their work and personal life (Halpern & Murphy, 2005:30).

According to Allen, Bruck and Sunon (2000:278), the work-life conflict that employees experience can lead to burnout, sleep deprivation, general psychological strain and physical consequences such as headache, backache and an upset stomach.

Stressor 4: Work overload

Employees suffer from work overload when the demand of a job exceeds the human limits; this usually occurs when individuals have to do too much in too little time with too few resources (Rothmann, 2003:20).

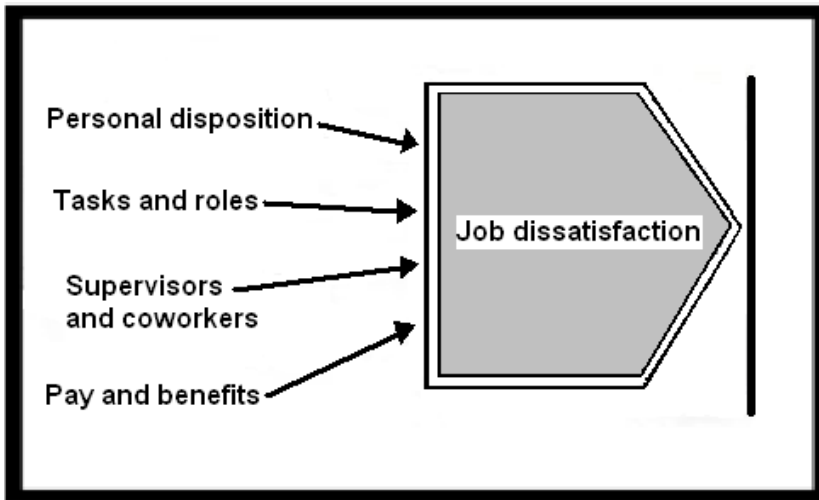
There clearly is an imbalance, or disparity, between the demands of the job and the individual's capacity to meet those demands. Work overload is the single best predictor of the exhaustion dimension of burnout. People experiencing work overload are often experiencing an imbalance in the load between their job and their social life as well (Halpern & Murphy, 2005:107).

South Africa is experiencing a situation where the country has high levels of "brain drain". Referring to the abovementioned phenomenon, this is when people with skills leave South Africa and the country is left with a large number of unskilled people to do the work. Work overload can occur if an individual does not have the necessary skills, abilities and support to meet these demands (Rothmann & Jorgensen, 2007:75).

Stressor 5: Job dissatisfaction

High levels of stress are associated with low levels of job satisfaction (Fairbrother & Warn, 2003:29). Job dissatisfaction contributes to higher turnover rates and decreased productivity; this dissatisfaction has been shown to be correlated with absenteeism and turnover (Tomey, 2004:104). In figure 2.3 the four categories of job dissatisfaction are illustrated (Noe, Hollenbeck & Wright, 2004:323-324):

Figure 2.3: Job withdrawal process



Source: Noe, Hollenbeck & Wright (2004:324).

- **Personal disposition category:** This is when a type of person is more disposed to be dissatisfied in their jobs than others. Thus some people are more negative about their jobs than others, due to their personal levels of satisfaction.
- **Task and roles category:** Tasks has been linked to dissatisfaction, due to the complexity of the task, the degree of physical strain and exertion required.
- **Pay and benefits category:** An occupation is a source of income, financial security and for some a symbol of status. Thus pay is an essential factor in the work environment to be satisfied.
- **Supervisors and co-workers category:** A healthy relationship with co-workers can lead to satisfaction in a job.

Stressor 6: Job relocation

Relocation stress is associated with the move from one job to another. Relocation stress typically occurs before and after the move. It has been compared to a separation anxiety, where the employee is separated from the work environment and is disrupted from daily routines which he or she is used to. These feelings of anxiety, uncertainty and loss of control are experienced with this stressor (Lewis & Lewis, 2004:94).

Occupational stress experienced over a period of time could lead to burnout. Burnout is an occupational stress syndrome occurring in the context of people and work, characterised

by varying degrees of exhaustion, detachment and reduced accomplishment (Manion, 2005).

2.3 BURNOUT

The concept of burnout has been known for more than 30 years. In the 1970s Herbert Freudenburger (1974) was the first person to introduce the term known as burnout. Freudenburger used this term to describe the volunteers that he was working with at the time, to have symptoms such as emotional depletion, loss of commitment and motivation. Burnout has first emerged as a social problem and not a scholarly construct (Schaufeli & Enzmann, 1998:6). Burnout is also the result of emotional pressure due to involvement with people in the work environment and lead to emotional exhaustion and depersonalisation (Maslach, 1978:111).

According to Rothmann and Coetzee (2004:31), burnout can be enhanced by demographical factors such as gender, age and work experience. They observed that younger employees tend to burnout more than employees older than 30 years of age. This means that burnout is negatively related to work experience. Thus the older and more experienced a person is in their work, the less their chances for burnout. The above scholars also found that more employees with a higher degree of education tend to have a higher level of burnout; this is because there are higher expectations on the individual by the organisation to perform.

Today, burnout employees are characterised by the dimensions that are conceptualised in the following section.

2.3.1 Dimensions of burnout

Burnout is constructed out of four dimensions. The dimensions are known as:

- Emotional exhaustion
- Depersonalisation
- Cynicism
- Low self efficiency

2.3.1.1 Emotional exhaustion

Emotional exhaustion refers to the feelings of being overextended and depleted of one's emotional resources. The major sources of this exhaustion are work overload and personal conflict at work. Workers feel drained and used up, without any source of replenishment. They lack enough energy to face another day or another person in need (Cooper, 2002:69).

When employees are in the stage of emotional exhaustion it leads to a negative attitude towards his or her colleagues and the organisation he or she is working for. According to Maslach (2002), exhaustion tends to emerge from one of the stressors mentioned in the causes of occupational stress namely work overload. Women score a higher level in emotional exhaustion than men (Rothmann & Coetzee, 2004:32).

According to Kok-Yee (2007:1-8), the job demand would be related to the exhaustion component of burnout. He suggests emotional exhaustion is the most proximal outcome of a stressful work environment and is the key triggering of depersonalisation and reduced personal accomplishments.

2.3.1.2 Depersonalisation

Depersonalisation refers to a negative or excessively detached response to other people, which often includes a loss of idealism. It usually develops in response to overload of emotional exhaustion, and is self-protective at first – an emotional buffer of detached concern. But the risk is that the detachment can turn into dehumanisation (Cooper, 2002:69). According to Rothmann and Coetzee (2004:32), men tend to score higher in depersonalisation than women.

One way to improve the depersonalisation is to improve one of the stressors mentioned in the causes of occupational stress namely the relationship with co-workers (Narayanan & Moynihan, 2006). Employees must focus on the job resources to decrease his or her burnout.

According to Kok-Yee (2007:1-8), the job resources would be related to the depersonalisation component of burnout. Depersonalisation acts as a trigger for other

burnout components, but if an organisation increases the actual amount of resources needed to complete the job, the organisation will then be able to improve the low levels of depersonalisation.

2.3.1.3 Cynicism

Cynicism refers to the attitude of an employee characterised by frustration, hopelessness and disillusionment. This attitude leads to the feeling of distrust toward the organisation and other objects in the workplace (Andersson, 2006:1975).

According to Maslach (2002), cynicism tends to emerge from one of the stressors mentioned in the causes of occupational stress namely work overload. By improving this work relationship stressor, one can lower one's level of cynicism in terms of job demand (Narayanan & Moynihan, 2006). Thus by decreasing the demand of the job one can lower the feelings of frustration and hopelessness, and this can improve the attitude towards the organisation.

2.3.1.4 Low self efficiency

Self efficiency refers to the individual's estimate of his or her own ability to perform a specific task in a particular situation. The greater the employee's perceived ability to perform the task, the higher will be the employee's self-efficacy. If employees have low-self efficacy, they believe that no matter how hard they try, something will prevent them from reaching the desired level of performance (Hellriegel & Slocum, 2007:113-114).

According to Maslach (2002), inefficiency arises from when there is a lack of resources to get the work done; for example, the lack of crucial information, lack of necessary tools or insufficient time. These symptoms lead to low productivity of organisations.

2.4 WORK ENGAGEMENT

Work engagement takes place when a person is committed to work, interested and excited in what they do at work. When people feel that they are more empowered in their work, they are more likely to be engaging in their work (Armstrong, 2004:127).

According to Rothmann and Van der Colff (2009:3), work engagement is defined as a positive, fulfilling, work related state of mind that is characterised by three dimensions namely:

- Vigour
- Dedication
- Absorption

Work engagement focuses on energy, involvement and efficacy, which are in complete contrast with the dimension of burnout. Burnout can be rephrased as an erosion of engagement with the job. This means when an employee started his work, he saw the work as important, meaningful and challenging but over time his work became more unpleasant, unfulfilling and meaningless (Rothmann , 2003).

Work engagement is characterised by the following dimensions that are conceptualised in the next section.

2.4.1 Dimensions of engagement

2.4.1.1 Vigour engagement dimension

Vigour refers to a person having high energy levels, resilience regarding work activities, investing effort in one's work and persistence in difficult circumstances (Rothmann & Van der Colff, 2009:3). Vigour is the direct positive opposite of exhaustion (Schaufeli & Bakker, 2004:295).

2.4.1.2 Dedication engagement dimension

Dedication refers to when a person has a sense of significance, enthusiasm, inspiration, pride and challenge in which he or she completes their work (Rothmann & Van der Colff, 2009:3).

Dedication is the direct positive opposite of cynicism (Schaufeli & Bakker, 2004:295).

2.4.1.3 Absorption engagement dimension

Absorption is characterised by full concentration on and engrossment in one's work, and finding it difficult to detach oneself from work. Absorption come close to the concept of "flow", which is characterised by an optimal state in which focused attention, a clear mind, unison of body and mind, effortless concentration, complete control, loss of self-consciousness, time distortion and intrinsic enjoyment are experienced (Rothmann & Van der Colff, 2009:3).

2.5 RELATIONSHIP OF BURNOUT AND ENGAGEMENT

Burnout results in a negative relationship that a person establishes with his or her work, in terms of exhaustion, cynicism and ineffectiveness which is in stark contrast with work engagement, which is a positive relationship that a person has with his or her work by being energetic, involved and effective (Cooper, 1998:75).

According to Schaufeli and Bakker (2004:293-297), engagement is also seen as a positive antipode to burnout. These characteristics of engagement are the direct opposite of the burnout characteristics. These opposites are indicated in table 2.1:

Table 2.1: Engagement characteristics versus burnout characteristics

Engagement characteristics	Burnout characteristics
Energy	Exhaustion
Involvement	Cynicism
Efficacy	Low efficiency

Burnout is seen as the erosion of engagement, where over time changes will occur as indicated below (Schaufeli & Bakker, 2004:294):

- A person with high levels of energy in his work turns into a person that is continuously exhausted in his or her work.

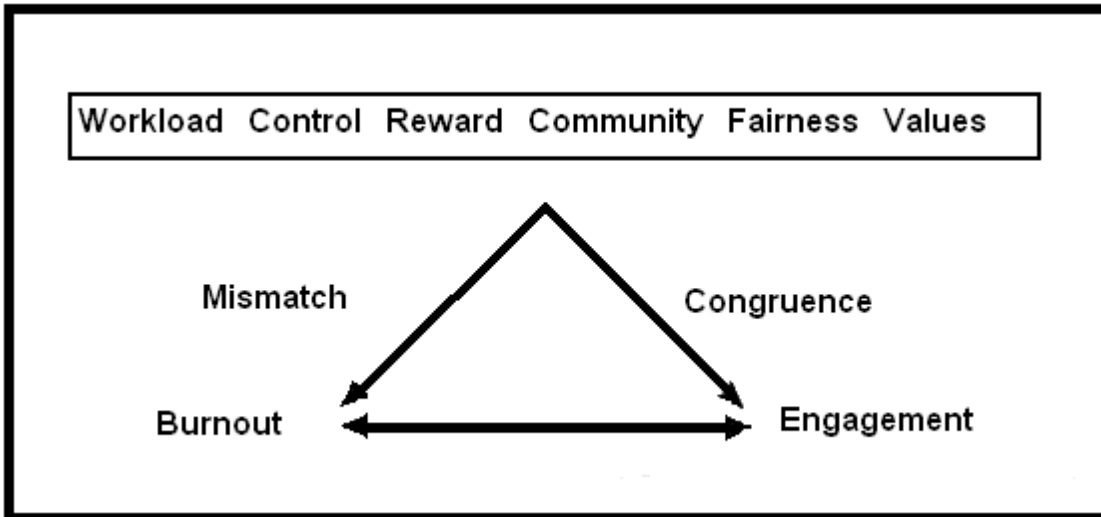
- A person that has a lot of involvement in the work turns into a person which exerts cynicism; he or she feels hopeless and distrusts the organisation.
- A person that is efficient in his or her work turns into a person that is inefficient in the job.

Developing job engagement starts with the development of an employee's job or role at an organisation. The organisation must focus on the provision of (Armstrong, 2004:124-127):

- **Interest and challenges:** Entails the degree in which the job is interesting and creates demanding and challenging goals for an employee.
- **Variety:** Describes the number of activities in one's job that need skills and special abilities.
- **Autonomy:** Describes the freedom and independence a person has in his or her work; for example, the freedom to make decisions, exercise choice and decide on the procedure to carry it out.
- **Task identity:** Entails a visible outcome at the end of a completed task
- **Task significance:** Indicates whether the end result of the job is significant and that it has an impact on the lives of other people.

2.5.1 Job areas that lead to engagement or burnout

Figure 2.4: The six areas of job-person fit



Source: Cooper (1998:75)

In the work environment, there are areas in which a person needs to focus on. These areas in the work environment are as follow (Cooper, 1998:75):

- **Work overload** manifests when the demand of the job exceeds the limits of a person. The person has too little resources and not much time to complete this job.
- **Lack of control** is experienced when a person does not have control over the work that he or she does. This lack of control can be because of rigid policies, tight monitoring or chaotic job conditions. Lack of control can lead to lower problem solving and the employee will not be able to make the correct choices in his or her job environment.
- **Insufficient reward** refers to an employee that does not get the appropriate reward for the work that he or she has done. These rewards can be extrinsic such as salary and benefits. Or the rewards can be intrinsic, for example, when an employee is satisfied in himself for doing his work well.

- **Breakdown of community** manifests when the employees of an organisation do not have a positive connection with the people that he or she is working with. For example, when there is too much unresolved conflict in the workplace. This unresolved conflict leads to negative feelings of frustration and hostility.
- **Absence of fairness** occurs when the work environment does not have justice and fair procedures to maintain mutual respect among employees. For example, unfairness occurs when there is inequity of workload, pay or when evaluations and promotions are not handled in a proper way.
- **Values conflict** occurs when the requirements of the job and the employee's personal principles are not the same. The employee can feel that things in his or her job are not ethical and not according to his or her values.

If these six areas of work overload, lack of control, insufficient rewards, breakdown of community, absence of fairness and values as mentioned above are mismatched with a person in the workplace, it will lead to burnout. But if these areas are in congruence with the person in the workplace it will lead to job engagement (Cooper, 1998:75).

2.6 SUPPORTING STAFF AND TEACHING STAFF

2.6.1 Information Technology department as supporting staff

Information Technology (hereinafter referred to as IT) is an example of a “non-human service” occupation. In the last three decades IT has emerged as one of the most essential sectors of the global economy. IT workers are typically known as information system professionals, programmers, developers, data processing professionals or software engineers (Maudgalya, Wallace, Daraiseh & Salem, 2005:286-290).

Business operations have increasingly become intertwined with IT, due to the fast moving global world (Applegate, Austen & Mcfarlan, 2005:104). In organisations the IT systems need to be supported not only in the development phase, but also when the systems are in use. The support of IT helps the non supporting employees to use the information technology as effectively as possible (Eason, 1998).

2.6.2 Burnout of IT staff

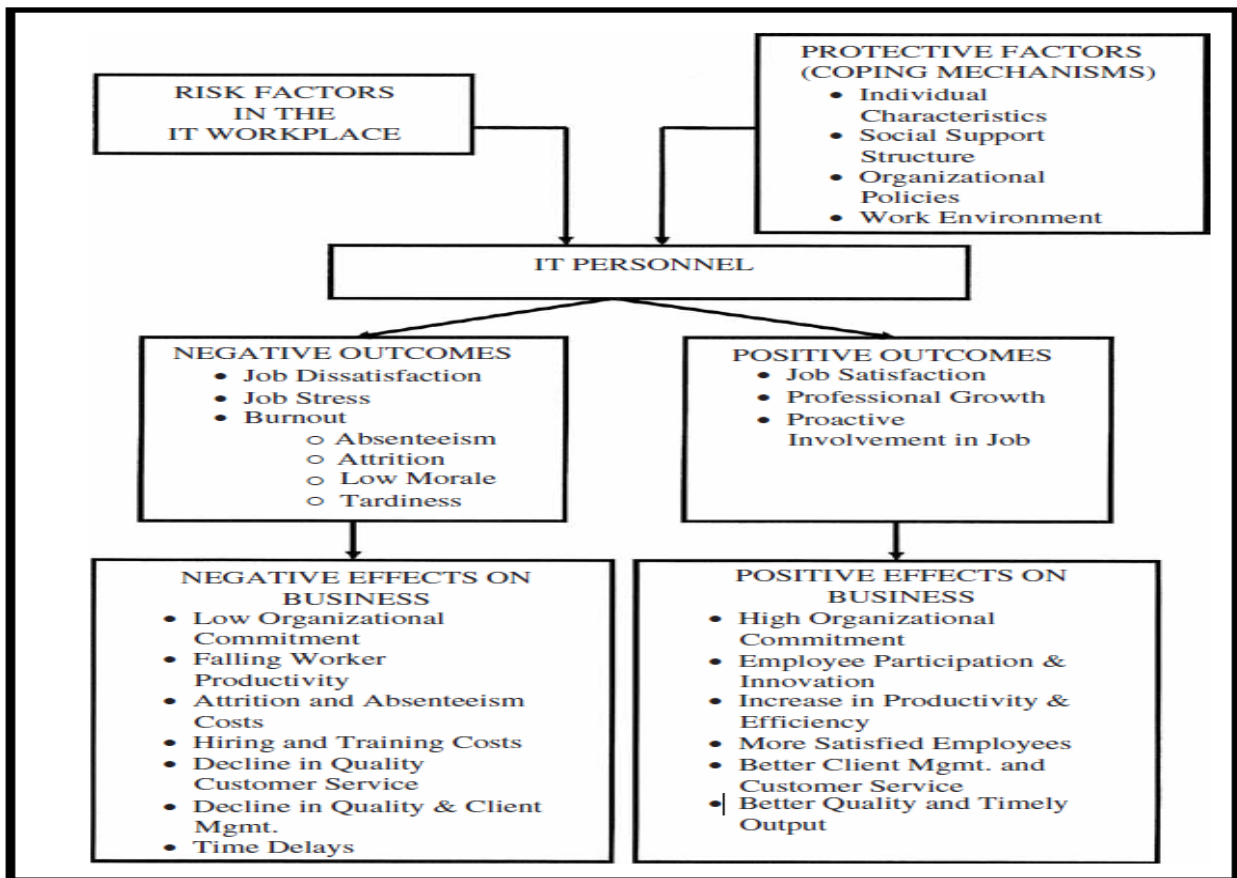
In today's IT work environment some of the stress factors that can lead to burnout are (Maudgalya *et al.*, 2005:103):

- The increasing market pressures.
- Long and indeterminate hours of work.
- Lack of distinction between work and home life.
- Tight work deadlines.
- Budgetary constraints that lead to understaffing.
- Consequently over-working.
- Management policies that often lack the understanding of IT operations.

Because of burnout in IT, organisations have lost billions of dollars in Canada. The relationship between burnout and its impact on the IT workplace in terms of turnover, absenteeism and decreased productivity can be seen in figure 2.5 (Maudgalya *et al.*, 2005:287).

Figure 2.5 follows on next page

Figure 2.5: Burnout and its impact on IT businesses



Source: Maudgalya *et al.* (2005:287)

According to Shafer (2003:6), the global economic meltdown with all its budget and staff cuts in organisations has left IT employees with a great deal of work stress. To overcome these stressors, managers need to implement internal career-advancements incentives such as skills development and retention programs. These measures need to be implemented proactively to minimise the loss of productivity in the long term.

2.6.3 Lecturers as teaching staff

Lecturers as teaching staff are seen as a ‘human service’ occupation or a caring profession (Maudgalya *et al.*, 2005:285). According to Fry, Ketteridge & Marshall (2009:463), university lecturers have to deliver theory based teaching to students that can be related to practice. The lecturer’s role is to support the students, act as mentor for the students and act as personal tutors to students. Teaching staff can be split up into levels known as junior lecturer, senior lecturer and professors.

2.6.4 Burnout of teaching staff

According to Hartney (2006:30) burnout is a condition that primarily affects lecturers because of their relationship with large number of students. Burnout affects lecturers less, when they are in the system for 10 years and more. Stress factors in the teaching environment that can lead to burnout are:

- Lack of hours in a day to prepare lectures
- Balancing time between new tasks and research.
- Inadequate communication from managers.
- Lack of support and recognition.

The emotional exhaustion dimension of burnout is higher among female lecturers than among male lecturers. But the depersonalisation burnout dimension is higher among men lecturers than among women lecturers (Lackritz, 2004:725).

Engagement of academics such as lecturers can be increased if people focus on the following areas (Barkhuizen & Rothmann, 2006:44-45):

- It is essential for a lecturer to have enough resources to complete the work. Thus they need to have a challenging task and they need to have assistants to help them with their tasks.
- Academic leaders play an essential role to increase the work engagement. The leaders need to reward and acknowledge good performance, be fair to individuals, help their staff in setting goals and interview staff on a regular basis on their personal and career development.
- Increase self efficiency by improving their beliefs through mastery experience, vicarious experience and positive states of emotion.

2.7 SUMMARY

Wellness and health is not just the physical wellness of a person, but also the mental wellbeing. It is essential for people to be aware of their wellness, because a decrease in wellness can lead to stress. By using the wellness continuum tool, one can embrace the perspective to create health. Wellness can be split up in different segments known as wellness dimensions namely physical, emotional, intellectual, spiritual, social, environmental and occupational. In the world and more specific in South Africa wellness has a huge effect on the economy.

Occupational stress is known as the harmful physical and emotional responses that occur when requirement of the job do not match the capabilities, resources or needs of workers. It can lead to negative effects such as health problems, lower productivity, and diminishing levels of customer service. The stress experienced can play a mediating role between the impact of the job stressors and the work-related outcomes. Stress can be caused by a lot of stress factors in the work environment namely relationships, security, overload, life-balance, dissatisfaction and relocation.

Burnout is an occupational stress syndrome occurring in the context of people and work that can be characterised by four dimensions known as emotional exhaustion, depersonalisation, cynicism and low self efficiency.

Work engagement takes place when one is committed, interested and excited in their work environment. Engagement can be characterised by three dimensions namely vigour, dedication and absorption.

Burnout has a negative relationship with work and engagement a positive relationship with work. Engagement is also known as a positive antipode to burnout. These characteristics of engagement are the direct opposite of the burnout characteristics. Employees experience energy that turns into exhaustion, involvement that turns into cynicism and efficiency that turns into inefficiency. Developing job engagement starts with the development of an employee's job or role at an organisation. The organisation must focus on role development by making provision for interest and challenges, variety, autonomy, task identity and task significance. Areas in the work environment that can lead to burnout or engagement are work overload, lack of control, breakdown of community, absence of fairness and values conflict.

Supporting staff in Information Technology is an example of a 'non-human service' occupation. IT workers are typically known as information system professionals, programmers, developers, data processing professionals or software engineers. Business operations have increasingly become intertwined with Information Technology. In today's IT work environment some of the stress factors that can lead to burnout is market pressures, long hours of work, lack of distinction between work and home life, work deadlines, understaffing, over-working and management policies that lack the understanding of IT operations.

Lecturers as teaching staff are seen as a 'human service' occupation. Their role is to support the students, act as mentors for the students and act as personal tutors to students. Teaching staff can be split up into levels known as junior lecturers, senior lecturers, associate professors and full professors. Burnout is a condition that affects lecturers due to their relationship with large numbers of students. Stress factors in the teaching environment are a lack of hours, balancing time between new tasks and research, inadequate communication, lack of support and recognition.

Chapter 3 entails the empirical study as outlined in Chapter 1.

CHAPTER 3

EMPIRICAL STUDY

3.1 INTRODUCTION

The purpose of the empirical study is firstly to achieve the primary objectives and secondary objectives of the study as mentioned in Chapter 1.

The empirical research was done by using two questionnaires that were disseminated to employees that work at an academic institution in the North-West province of South Africa. The employees that received questionnaires were divided into two groups, namely academic teaching (Lecturer) staff and technical support (IT) staff.

Firstly, the structure of the questionnaires that were used for this study is discussed. Secondly, the method used to gather the data is described. Lastly, an analysis of the results of the survey is done.

3.2 STRUCTURE OF QUESTIONNAIRES

Two different questionnaires were used in this study namely:

- Work and well-being questionnaire (UWES) (Schaufeli & Baker, 2003:52).
- Job resources questionnaire (Jackson, 2004).

3.2.1 Work and well-being questionnaire (UWES)

In this study, the Schaufeli and Baker (2003:52) questionnaire that was used is known as the Work & Well-being questionnaire that consists of 17 questions regarding the perception of a person in his or her work. The questionnaire was designed to gather data on work engagement.

The Work & Well-being questionnaire is divided into the following sections:

Section A

Section A's purpose was to obtain specific information regarding the vigour dimension of the respondents. The vigour dimension refers to the information that focuses on high levels of energy, motivation to invest effort at work and resilience; that being withstanding difficulties and persisting despite obstacles (Perrewe & Gangster, 2004:141).

Section B

Section B's purpose was to obtain specific information about the dedication dimension of the respondents. The dedication dimension refers to strong involvement in one's work, accompanied by feelings of enthusiasm and significance (Perrewe & Gangster, 2004:141).

Section C

Section C's purpose was to obtain specific information regarding the absorption dimension of the respondents. The absorption dimension refers to a pleasant state of total immersion to detach oneself from the job (Perrewe & Gangster 2004:141).

Table 3.1 shows the number of questions per section of the Work & Well-being questionnaire.

Table 3.1: Work and Well-being questionnaire: Number of questions per section

Work and Well-being questionnaire (UWES)	
<u>Number of questions</u>	<u>Section</u>
6	Section A
6	Section B
5	Section C
<u>17</u>	<u>Total survey</u>

3.2.2 Job resources questionnaire

The second questionnaire from Jackson (2004) that was used consists of 48 questions with the purpose to obtain an accurate picture of the work and work environment of a person. This questionnaire focuses on the job resources.

The job resources questionnaire was divided into the following sections:

Section A

The purpose of section A was to attain information pertaining to contact with colleagues.

Section B

The purpose of section B was to attain information pertaining to progression.

Section C

The purpose of section C was to attain information pertaining to role (over/under) load.

Section D

The purpose of section D was to attain information pertaining to mental overload.

Section E

The purpose of section E was to attain information pertaining to emotional overload.

Section F

The purpose of section F was to attain information pertaining to variety/skill use.

Section G

The purpose of section G was to attain information pertaining to achievement.

Section H

The purpose of section H was to attain information pertaining to influence in work.

Section I

The purpose of section I was to attain information pertaining to collegiality.

Section J

The purpose of section J was to attain information pertaining to supervision.

Section K

The purpose of section K was to attain information pertaining to expectations.

Section L

The purpose of section L was to attain information pertaining to information regarding performance.

Section M

The purpose of section M was to attain information pertaining to communication from a department.

Section N

The purpose of section N was to attain information pertaining to participation.

Section O

The purpose of section O was to attain information pertaining to job security.

Section P

The purpose of section P was to attain information pertaining to satisfaction with pay.

Table 3.2 shows the amount of questions per section of the job resources questionnaire.

Table 3.2: Job Resources questionnaire: Number of questions per section

<u>Number of questions</u>	<u>Section</u>
3	Section A
3	Section B
3	Section C
3	Section D
3	Section E
3	Section F
3	Section G
3	Section H
3	Section I
3	Section J
3	Section K
3	Section L
3	Section M
3	Section N
3	Section O
3	Section P
<u>48</u>	<u>Total survey</u>

3.3 BASIS OF DESIGN

The Work and Well-being questionnaire (UWES) was designed on a basis of a seven-point Likert scale ranging from Always to Almost Never and Never to Every day. This scale was used in all 17 questions. **Table 3.3** shows the seven-point Likert scale.

Table 3.3: Seven-point Likert scale

Never	Almost never	Rarely	Sometimes	Often	Very Often	Always
0	1	2	3	4	5	6
Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

Each of the questions could be answered by selecting the relevant option.

Appendix A contains an example of the questionnaire.

The second questionnaire (job resources) was designed on a basis of a four-point Likert scale ranging from Always to Never. This scale was used in all 48 questions. **Table 3.4** shows the four-point Likert scale.

Table 3.4: Four-point Likert scale

Always	Often	Sometimes	Never
1	2	3	4

Each of the questions could be answered by selecting the relevant option.

Appendix B contains an example of the questionnaire.

- **Likert scale**

The Likert scale refers to a widely used questionnaire format named after its developer, Renis Likert. Respondents of questionnaires are asked to choose from several responses in a range such as 'strongly agree', 'agree', 'disagree' and 'strongly disagree'. Each response receives a number rating for example from 0 to 3, which is added up, either weighed or not weighed (Peters, 2008:170).

According to Kumar (2008:108), the Likert scale has the following advantages:

- It is simple to construct.
- The Likert scale can be used in many cases; for example, multidimensional domains in which Thurston or Guttman scales cannot be created.
- It is more reliable than other scales.
- The range of agreement-disagreement responses permitted with Likert items may make subjects more comfortable in indicating their position than the simple agree versus disagree choice forced by Thurston items. The graded responses may also give more reliable information about the subject's opinion.

According to Grossnikle and Raskin (2001:181), the Likert scale has the following disadvantages:

- Respondents may not all place the same value on each point in the scale, or distance between one point and the next.
- In scales with fewer rating points (5-point), there is a reasonable possibility that the increase represented by a jump from 4 to 5 is significantly more than the jump from 3 to 4.

3.4 GATHERING OF DATA

3.4.1 Research process

Two different staff types were identified at an academic institution in the North-West province. The first was academic teaching staff (lecturers) and the second technical support staff (IT personnel). In these different staff types, every employee was informed of the purpose of the survey. Permission was then asked of each of the employees to complete the survey. A total of 120 questionnaires were handed out to staff members to fill in, and post it back via internal mail and a total of 66 were received back, giving a total response rate of 55%.

3.4.2 Statistical and data analysis

The statistical analysis was done by the Statistical Consultation Service of the North-West University in Potchefstroom by making use of two different programmes:

- SAS Institute Inc. (2003). The SAS System for Windows Release 9.1 TS Level 1M3 Copyright© by SAS Institute Inc., Cary, NC, USA
- StatSoft, Inc. (2009). STATISTICA (data analysis software system), version 9.0. www.statsoft.com.

The statistical analysis that was employed in this study was the following:

- ***Cronbach's Alpha Coefficient***

If each item on the test has multiple choices, such as the Likert scale, then Cronbach's alpha is the method of choice to determine inter-item reliability (Gliner & Morgan, 2009:315-316). To complete Cronbach's alpha the following equation is applied (Figure 3.1):

Figure 3.1: Cronbach's alpha Coefficient

$$\alpha = \left(\frac{I}{I-1} \right) \left(\frac{s^2 - \sum s^2}{s^2} \right)$$

Where I = total number of items on the test, s^2 = total variance of the test scores and $\sum s^2$ = sum of the variances for each item.

- ***Descriptive statistics***

According to Friedman and An (1999:28), descriptive statistics is a number which is intended to summarise some characteristic of a larger source of data. Examples of commonly used descriptive statistical terms include measures of central tendency (mean, median and mode) and measures of variability (minimum, maximum, standard, range, standard deviation and coefficient of variation).

- **T-test**

The *t*-test compares the actual difference between two means in relation to the variation in the data (expressed as the standard deviation of the difference between the means). A summary of the *t*-test formula is as follows in Figure 3.2 (Anderson, Sweeney & Williams, 2009:161-162):

Figure 3.2: T-test

$$T = \frac{\bar{x}_1 - \bar{x}_2}{SE(\bar{x}_1 - \bar{x}_2)}$$

Where \bar{x}_1 = the mean of the first sample,

\bar{x}_2 = the mean of the second sample, and

SE ($\bar{x}_1 - \bar{x}_2$) = the estimate of the standard error of the difference between means.

Data analysis was done on the data received from the responses of the different staff members. Thus the following section will cover these responses in more detail.

3.5 RESULTS AND DISCUSSION

In this section, the results of the empirical study are reported and discussed. First Cronbach's Alpha Reliability Coefficient was used to determine the reliability of the tools used for this study. Secondly, the results are reported for the descriptive statistics of the sample population (N = 66). Lastly, a comparison is made between sample group IT (N = 33) and sample group Lecturer (N = 33) by using the *t*-test with a p-value to determine the means of the groups.

3.5.1 Reliability of the questionnaire results

Cronbach's Alpha Coefficient was applied to examine internal consistency within the Work and Well-being questionnaire (UWES) and Job Resources questionnaire. According to Thietart (2001:203), the value of alpha varies between 0 and 1. The closer it is to 1, the stronger the internal cohesion of the scale (that is, its reliability). Values equal to 0.7 or above it are generally accepted. The Deleted Variable figures tell a person how each item is correlated with the entire test and what the Alpha would be if that variable is deleted.

3.5.1.1 Work and Well-being questionnaire (UWES)

- ***Cronbach's Alpha reliability for Vigour***

Cronbach's Alpha for the vigour dimension is 0.76. Due to the fact that the alpha > 0.70 indicates that it is generally accepted as reliable. Question 15 (compare Appendix A) has the strongest relationship with the vigour test. If this item is removed, the alpha will be dropped to 0.69. This indicates that if this question is removed from the test the reliability will deteriorate.

- ***Cronbach's Alpha reliability for Dedication***

Cronbach's Alpha for the dedication dimension is 0.88. Due to the fact that the alpha > 0.80 indicates that the reliability is very good. Question 5 (compare Appendix A) has the strongest relationship with the dedication test. If this item is removed, the alpha will be dropped to 0.83 and are still very reliable.

- ***Cronbach's Alpha reliability for Absorption***

Cronbach's Alpha for the absorption dimension is 0.80. Due to the fact that the alpha > 0.80 indicates that the reliability is very good. Question 14 (compare Appendix A) has the strongest relationship with the dedication test. If this item is removed, the alpha will be dropped to 0.73. This indicates that if this question is removed from the test the reliability will deteriorate.

3.5.1.2 Job resources questionnaire

- ***Cronbach's Alpha reliability for Contact with Colleagues***

Cronbach's Alpha for contact with colleagues is 0.57. Due to the fact that the alpha < 0.60 indicates that this test has a low reliability, thus the test needs a revision on questions 13, 29, 45. This test will be left out of the study, due to the revision on the questions as mentioned above.

- ***Cronbach's Alpha reliability for Progression***

Cronbach's Alpha for progression is 0.60. Due to the fact that the alpha < 0.70 indicates that the reliability is too low. Due to this low alpha this test should not contribute to the study.

- ***Cronbach's Alpha reliability for Role (over/under) Load***

Cronbach's Alpha for role (over/under) load is 0.29. Due to the fact that the alpha < 0.3 indicates that this test should not contribute to the study.

- ***Cronbach's Alpha reliability for Mental overload***

Cronbach's Alpha for mental overload is 0.68. Due to the fact that the alpha < 0.7 indicates that the reliability is somewhat low. Question 34 has the strongest relationship with the mental overload test. If this item is removed, the alpha will be dropped to 0.46. This indicates that if this question is removed from the test the reliability will deteriorate. Due to alpha < 0.7 indicate that test will not contribute to the study.

- ***Cronbach's Alpha reliability for Emotional overload***

Cronbach's Alpha for emotional overload is 0.71. Due to the fact that the alpha > 0.7 indicates that the reliability is generally accepted. Question 35 has the strongest relationship with the emotional overload test. If this item is removed, the alpha will be dropped to 0.57. This indicates that if this question is removed from the test the reliability will deteriorate.

- ***Cronbach's Alpha reliability for Variety/Skills use***

Cronbach's Alpha for variety/skills use is 0.02. Due to the fact that the alpha < 0.3 indicates that this test should not contribute to the study.

- ***Cronbach's Alpha reliability for Achievement***

Cronbach's Alpha for achievement is 0.80. Due to the fact that the alpha > 0.7 indicates that the reliability is generally accepted. Question 5 has the strongest relationship with the achievement test. If this item is removed, the alpha will be dropped to 0.67. This indicates that if this question is removed from the test the reliability will deteriorate.

- ***Cronbach's Alpha reliability for Influence in Work***

Cronbach's Alpha for influence in work is 0.64. Due to the fact that the alpha < 0.7 indicates that the reliability is somewhat low. Due to this low alpha this test should not contribute to the study.

- ***Cronbach's Alpha reliability for Collegiality***

Cronbach's Alpha for collegiality is 0.71. Due to the fact that the alpha > 0.7 indicates that the reliability is generally accepted. Question 23 has the strongest relationship with the collegiality test. If this item is removed, the alpha will be dropped to 0.44. This indicates that if this question is removed from the test the reliability will deteriorate.

- ***Cronbach's Alpha reliability for Supervision***

Cronbach's Alpha for supervision is 0.75. Due to the fact that the alpha > 0.7 indicates that the reliability is generally accepted. Question 8 has the strongest relationship with the supervision test. If this item is removed, the alpha will be dropped to 0.62. This indicates that if this question is removed from the test the reliability will deteriorate.

- ***Cronbach's Alpha reliability for Expectations***

Cronbach's Alpha for expectations is 0.68. Due to the fact that the alpha < 0.7 indicates that the reliability is somewhat low and this test will not contribute to the study.

- ***Cronbach's Alpha reliability for Information regarding performance***
 Cronbach's Alpha for information regarding performance is 0.75. Due to the fact that the alpha > 0.7 indicates that the reliability is generally accepted. Question 26 has the strongest relationship with the information regarding performance test. If this item is removed, the alpha will be dropped to 0.64. This indicates that if this question is removed from the test the reliability will deteriorate.
- ***Cronbach's Alpha reliability for Communication from a Department***
 Cronbach's Alpha for communication from a department is 0.59. Due to the fact that alpha < 0.7 indicates that the reliability is somewhat low and this test will not contribute to the study.
- ***Cronbach's Alpha reliability for Participation***
 Cronbach's Alpha for participation is 0.35. Due to the fact that the alpha < 0.4 indicates that this test should not contribute to the study.
- ***Cronbach's Alpha reliability for Job security***
 Cronbach's Alpha for job security is 0.90. Due to the fact that the alpha > 0.8 indicates that the reliability is very good. Question 30 has the strongest relationship with the job security test. If this item is removed, the alpha will be dropped to 0.78. This indicates that if this question is removed from the test the reliability will deteriorate.
- ***Cronbach's Alpha reliability for Satisfaction with pay***
 Cronbach's Alpha for satisfaction with pay is 0.80. Due to the fact that the alpha > 0.7 indicates that the reliability is very good.

3.5.2 Descriptive statistics of the sample

3.5.2.1 The level of Work-Wellness for the sample (N = 66)

The mean, median, minimum (MIN), maximum (MAX) and standard deviation (SD.) for the Work and Well-being questionnaire (UWES) including its sub scales of vigour, dedication

and absorption are illustrated in **Graph 3.1** with a discussion of the findings following. Table 3.3 shows the scale indications.

Graph 3.1: Descriptive statistics of work engagement dimensions

Test	Mean	Standard deviation (SD)	Median	Minimum (MIN)	Maximum (MAX)
<i>Vigour</i>	3.94	0.79	3.83	1.67	5.67
<i>Dedication</i>	4.22	1.04	4.6	0.8	5.83
<i>Absorption</i>	4.05	0.86	4.17	0.67	5.83

Vigour

According to the descriptive statistics the vigour dimension has a mean of 3.94 and a median of 3.83; this indicates to the perception of **often** or **once a week**. Minimum was at 1.67 and maximum at 5.67. The data gathered are positive, or right-skewed; most of the values are in the lower portion of the distribution. The sample (N = 66) feels **often** or **once a week**:

- Bursting with energy at work.
- Strong and vigorous about work.
- That they want to go to work.
- Can continue working for very long periods at a time.
- Very resilient mentally.

Dedication

The Dedication dimension has a mean of 4.22 and a median of 4.6; this indicates to the feeling of **very often** or **few times a week**. Minimum was at 0.8 and maximum at 5.83. The data gathered are negative, or left-skewed; most of the values are in the upper portion of the distribution. The sample (N = 66) feels **very often** or a **few times a week**:

- The work that is done is full of meaning and purpose.
- Enthusiastic about the job.

- The job is inspiring.
- Proud of the work that was done.
- That the job is challenging.

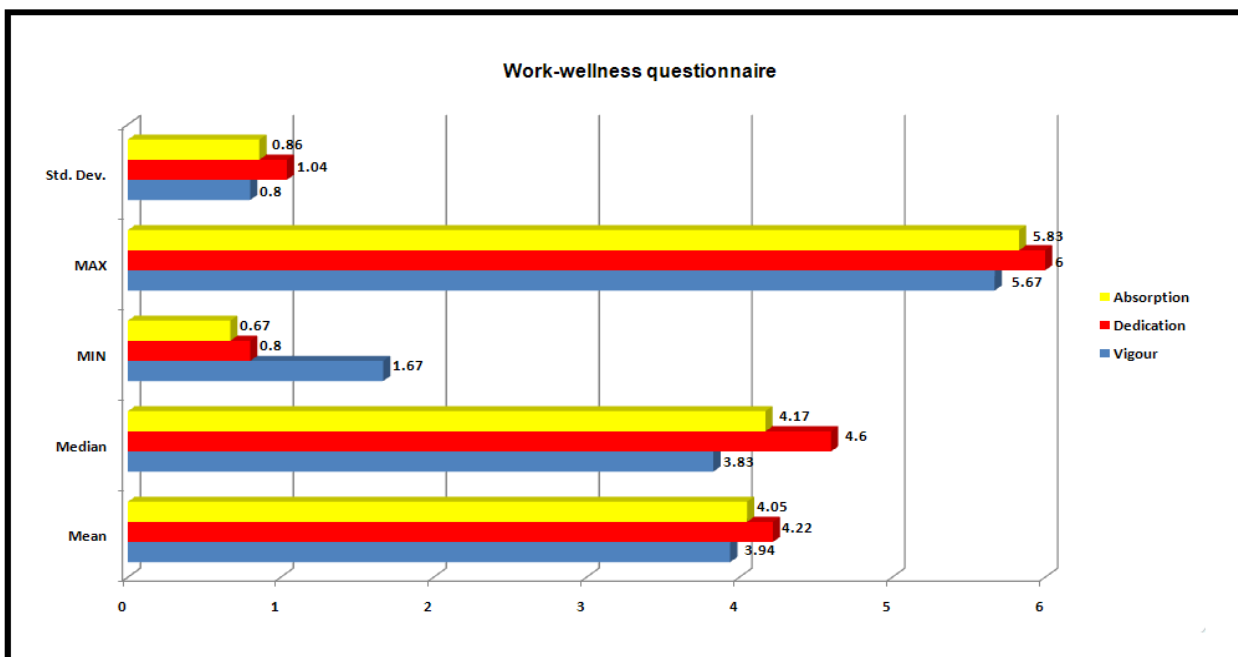
Absorption

The Absorption dimension has a mean of 4.05 and a median of 4.17; this indicates to the feeling of **often** or **once a week**. Minimum was at 0.67 and maximum at 5.83. The data gathered are negative, or left-skewed; most of the values are in the upper portion of the distribution. The sample (N = 66) **feels often** or a **once a week**:

- Time flies when working.
- When working they forget about everything around them.
- Happy when working intensively.
- Get carried away when working.
- Difficult to detach from work.

The mean of the dedication dimension of 4.22 is higher than absorption of 4.05 and vigour of 3.94. This indicates that the group feels more significance, enthusiasm, inspiration, pride and challenge in the way they complete their work (Rothmann & Van der Colff, 2009:3). From **Graph 3.1** it can be seen that maximum for all the engagement dimensions is between 5.67 and 6. The minimum level for vigour is 0.87 higher than dedication and 1 higher than absorption. Thus the sample group has more energy levels compared to their absorption and dedication levels.

Graph 3.1: Descriptive statistics of Work-Wellness questionnaire (N = 66)



3.5.2.2 The level of perception of work environment and job resources for the sample (N = 66)

Table 3.6: Descriptive statistics of job resources

Test	Mean	Standard deviation(SD)	Median	Minimum (MIN)	Maximum (MAX)
Contact with colleagues	1.71	0.53	1.67	1.00	3.00
Progression	2.63	0.60	2.67	1.33	4.00
Role (Over/Under) Load	2.72	0.41	2.67	1.67	3.67
Mental overload	1.72	0.56	1.67	1.00	3.00
Emotional overload	2.99	0.62	3.00	1.00	4.00
Variety/Skills use	2.22	0.41	2.33	1.00	3.00
Achievement	2.16	0.67	2.00	1.00	4.00
Influence in Work	2.10	0.54	2.00	1.00	3.33
Collegiality	1.78	0.56	1.67	1.00	3.33
Supervision	1.83	0.63	1.67	1.00	3.33
Expectations	2.04	0.60	2.00	1.00	3.67
Information regarding performance	2.19	0.64	2.33	1.00	3.67
Communication from department	2.69	0.59	2.67	1.33	4.00
Participation	2.36	0.52	2.33	1.33	3.67
Job security	2.89	0.96	3.00	1.00	4.00
Satisfaction with pay	3.18	0.62	3.00	2.00	4.00

The mean, median, minimum (MIN), maximum (MAX) and standard deviation (Std. Dev.) for the job resources questionnaire including its sub scales of Mental overload, Emotional overload, Variety/Skills use, Achievement, Influence in Work, Collegiality, Supervision, Expectations, Information regarding performance, Communication from a Department, Participation, Job security and Satisfaction with pay are illustrated in **Graph 3.2** with a discussion of the reliable findings following. In Table 3.4 the scale indications are shown.

Emotional overload

Progression in the work environment has a mean of 2.62 and a median of 2.67. This indicates a perception of sometimes. The sample (N = 66) Sometimes feels:

Emotional overload in the work environment has a mean of 2.99 and a median of 3. This indicates a perception of sometimes. The data gathered are negative, or left-skewed; most of the values are in the upper portion of the distribution. The sample (N = 66) Sometimes:

- Are confronted at work with things that affect a person personally.
- In contact with difficult people at work.
- In emotional upsetting situations at work.

Achievement

Achievement in the work environment has a mean of 2.16 and a median of 2. This indicates a perception of often. The data gathered are positive, or right-skewed; most of the values are in the lower portion of the distribution. The sample (N = 66) Often:

- Feels that their job offers opportunities for personal growth and development.
- Feels that they achieve something at work.
- Feels that their job offers the possibility of independent thought and action.

Collegiality

Collegiality in the work environment has a mean of 1.78 and a median of 1.67. This indicates a perception of often. The data gathered are positive, or right-skewed; most of the values are in the lower portion of the distribution. The sample (N = 66) Often:

- Said that they can count on their colleagues when they come across difficulties at work.
- Can ask their colleagues for help.
- Get on well with their colleagues.

Supervision

Supervision in the work environment has a mean of 1.82 and a median of 1.67. This indicates a perception of often. The data gathered are positive, or right-skewed; most of the values are in the lower portion of the distribution. The sample (N = 66) Often:

- Can count on colleagues when experiencing difficulties in the work.
- Can ask colleagues for help.
- Get along with the colleagues at work.

Information regarding performance

Information regarding performance in the work environment has a mean of 2.19 and a median of 2.33. This indicates a perception of often. The data gathered are negative, or left-skewed; most of the values are in the upper portion of the distribution. The sample (N = 66) Often:

- Receive sufficient information on the purpose of the work.
- Receive sufficient information on the results of your work
- The supervisor inform on how you are performing at work.

Job security

Job security in the work environment has a mean of 2.89 and a median of 3. This indicates a perception of sometimes. The data gathered are negative, or left-skewed; most of the values are in the upper portion of the distribution. The sample (N = 66) Sometimes:

- Need to be more secure that you will still be working in one year's time.
- Need to be more secure about keeping the job for the next year.

Satisfaction with pay

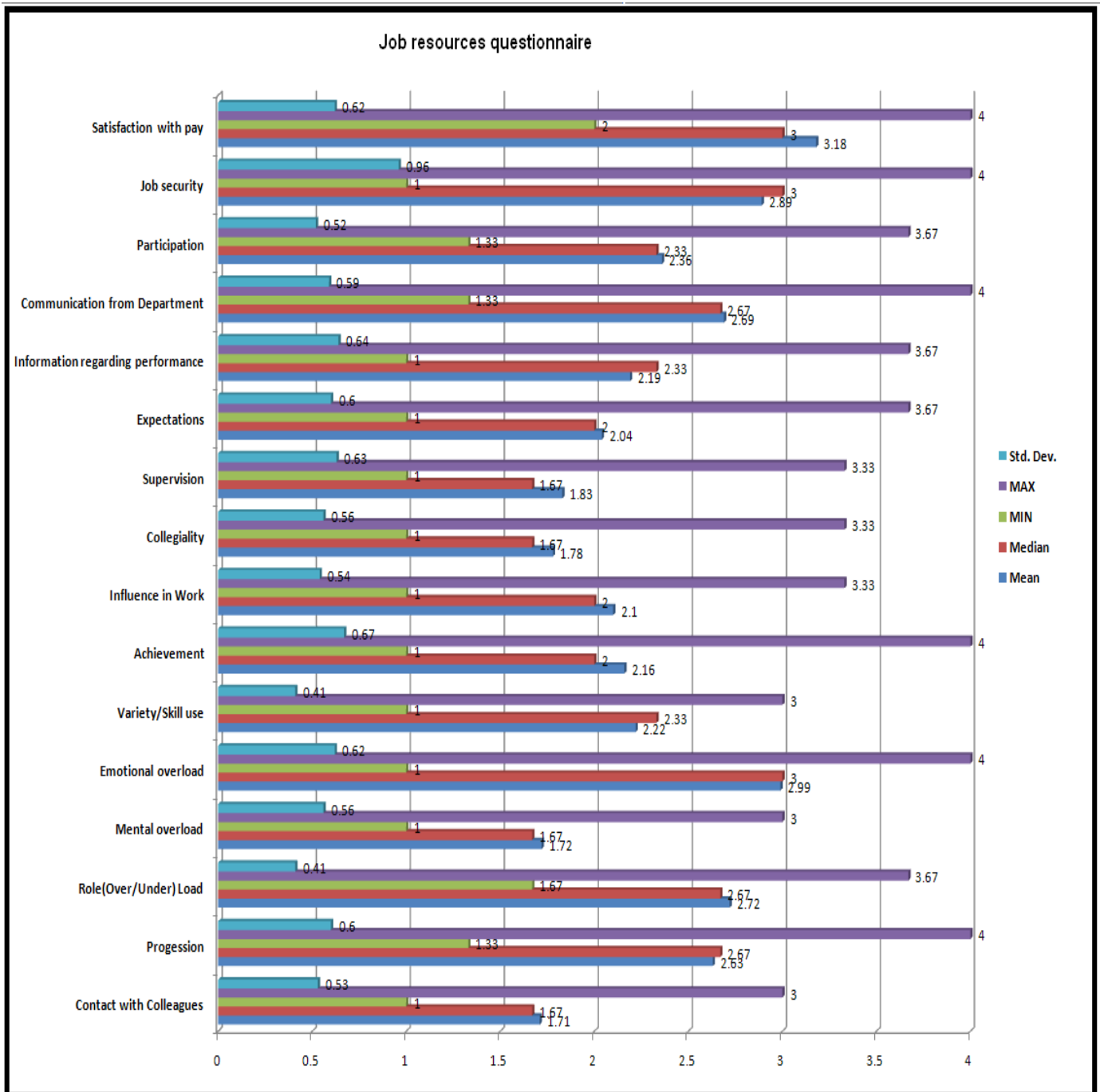
Satisfaction with pay in the work environment has a mean of 3.18 and a median of 3. This indicates a perception of sometimes. The data gathered are positive, or right-skewed; most of the values are in the lower portion of the distribution. The sample (N = 66) Sometimes:

- Think that organisation pays good salaries.
- Can live comfortably on the pay received.

The mean of Satisfaction with pay is the highest at 3.18, which indicates that the group feels strong about not getting paid enough for their work. Mental overload of mean 1.72 indicates that the sample has high levels of mental overload. According to Hattingh and Acutt (2008:412), mental overload can influence the work behaviour and physical and mental health of workers. This can be true for many jobs, but particularly true in people-oriented career groups.

Graph 3.2 follows on next page

Graph 3.2: Descriptive statistics of Job Resources questionnaire (N = 66)



3.6 COMPARISON BETWEEN IT STAFF AND LECTURER STAFF

In this section a comparison was made in terms of how the two sample groups tested on the engagement dimensions. Secondly, the groups were compared by aspects of the work, work environment and job resources. The *t*-test with the *p*-value was used to make the comparison.

Table 3.7: Grouping and T-Test for sample population

Test	Lecturer Mean	Lecturer SD	IT Mean	IT SD	p-value	t-value	Effect Size
<i>Vigour</i>	3.78	0.71	4.11	0.86	0.1006	-1.666	-0.38
<i>Dedication</i>	3.92	1.04	4.53	0.95	1.0153	-2.493	-0.59
<i>Absorption</i>	3.95	0.95	4.15	0.77	0.3441	-0.953	-0.21
<i>Contact with colleagues</i>	1.66	0.54	1.77	0.52	0.3978	-0.851	-0.21
<i>Progression</i>	2.61	0.58	2.65	0.63	0.7880	-0.270	-0.06
<i>Role(Over/Under) Load</i>	2.75	0.43	2.71	0.39	0.6914	-0.399	0.09
<i>Mental overload</i>	1.82	0.62	1.63	0.48	0.1676	1.396	0.31
<i>Emotional overload</i>	2.77	0.54	3.21	0.62	0.0031	-3.080	-0.71
<i>Variety/Skills use</i>	2.27	0.38	2.17	0.44	0.2950	1.056	0.24
<i>Achievement</i>	2.32	0.66	1.99	0.65	0.0423	2.072	0.51
<i>Influence in Work</i>	2.15	0.51	2.05	0.58	0.4534	0.754	0.17
<i>Collegiality</i>	1.88	0.66	1.69	0.50	0.1856	1.338	0.29
<i>Supervision</i>	1.95	0.67	1.71	0.57	0.1191	1.580	0.36
<i>Expectations</i>	1.96	0.63	2.11	0.58	0.3261	-0.990	-0.23
<i>Information regarding performance</i>	2.21	0.61	2.17	0.68	0.8001	0.254	0.06
<i>Communication from department</i>	2.68	0.58	2.71	0.62	0.8378	-0.206	-0.05
<i>Participation</i>	2.44	0.52	2.27	0.52	0.1852	1.339	0.33
<i>Job security</i>	2.98	1.01	2.80	0.92	0.4609	0.741	0.17
<i>Satisfaction with pay</i>	3.09	0.64	3.26	0.59	0.2633	-1.128	-0.27

3.6.1 Job engagement dimensions

The means for the Work and Well-being questionnaire (UWES) including its sub scales of vigour, dedication and absorption are illustrated in **Graph 3.3 to 3.5** with the comparison of the IT sample group (N= 33) and lecture sample group (N = 33). From the results as

indicated in the following graphs, the engagement dimensions of the typical respondent of the survey are as follows.

Vigour

Comparison of the vigour dimensions is illustrated in **Graph 3.3**. The sample mean for the IT group is 4.106 and the sample mean for the Lecturer group is 3.784. The sample size for both groups is 33. From Table 3.7 one can see the t-statistic and a p-value, the $t = -1.666$ with 64 degrees of freedom, and a p-value of 0.1006.

Null hypothesis: means of two groups are equal.

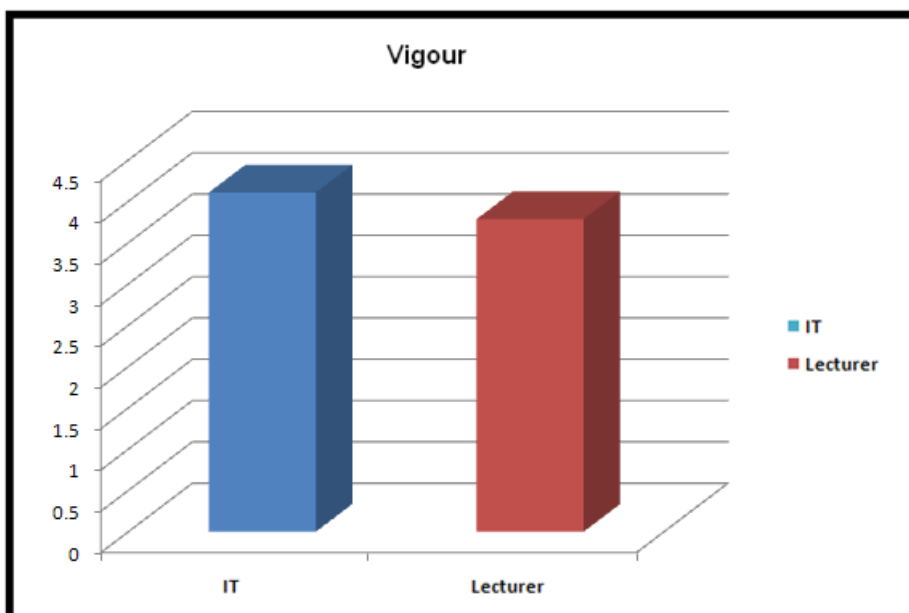
$$H_0: u_1 = u_2$$

Alternative: means of the two groups are not equal.

$$H_a: u_1 \neq u_2$$

The significance level is set at 0.1 and the test resulted in p-value above 0.1. The alternative hypothesis will be rejected in favour of the null hypothesis. The conclusion is that the mean vigour dimension for group IT is significantly equal to group Lecturer.

Graph 3.3: Vigour dimension mean of respondents



Dedication

Comparison of the dedication dimensions is illustrated in **Graph 3.4**. The sample mean for the IT group is 4.53 and the sample mean for the Lecturer group is 3.92. The sample size for both groups is 33. From Table 3.7 one can see the t-statistic and a p-value, the $t = -2.492$ with 64 degrees of freedom, and a p-value of 0.0153.

Null hypothesis: means of two groups are equal.

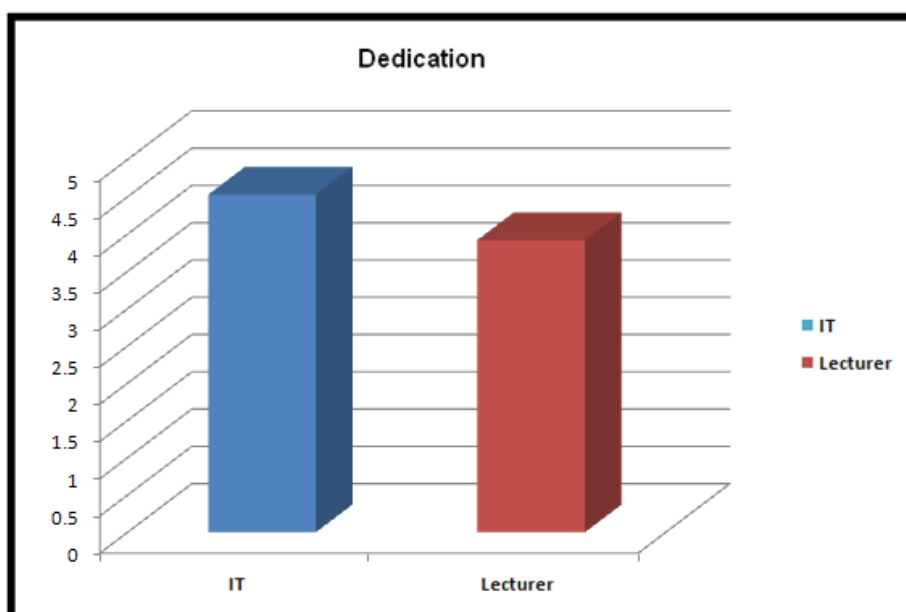
$$H_0: u_1 = u_2$$

Alternative: means of the two groups are not equal.

$$H_a: u_1 \neq u_2$$

The significance level is set at 0.1 and the test resulted in p-value under 0.1 is significant. The null hypothesis will be rejected in favour of the alternative hypothesis. The conclusion is that the mean dedication dimension for group Lecturer is smallest. Thus the dedication dimension of engagement is higher for the IT group than the Lecturer group. The mean dedication dimension for the Lecturer group was significantly smaller than for the IT group.

Graph 3.4: Dedication dimension mean of respondents



Absorption

Comparison of the absorption dimensions is illustrated in **Graph 3.4**. The sample mean for the IT group is 4.15 and the sample mean for the Lecturer group is 3.95. The sample size for both groups is 33. From Table 3.7 one can see the t-statistic and a p-value, the $t = -0.953$ with 64 degrees of freedom, and a p-value of 0.3441.

Null hypothesis: means of two groups are equal.

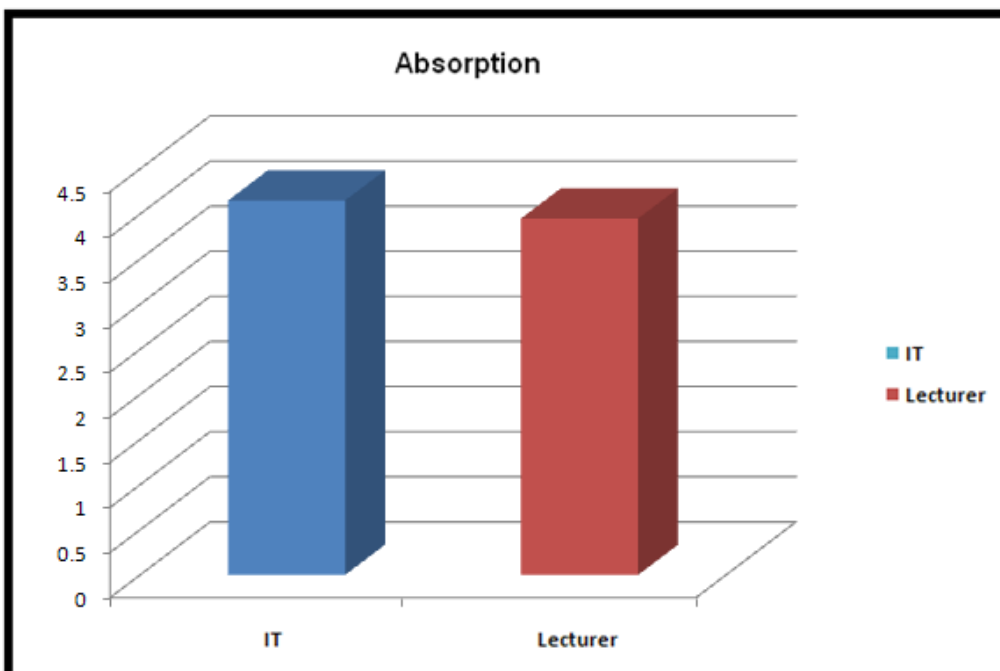
$$H_0: u_1 = u_2$$

Alternative: means of the two groups are not equal.

$$H_a: u_1 \neq u_2$$

The significance level is set at 0.1 and the test resulted in p-value above 0.1. The alternative hypothesis will be rejected in favour of the null hypothesis. The conclusion is that the mean absorption dimension for group IT is significantly equal to group Lecturer.

Graph 3.5: Absorption dimension mean of respondents



3.6.2 Aspects of the work and work environment

The mean for the Job resources questionnaire including its sub scales of contact with colleagues, progression, role (over/under) load, mental overload, emotional overload, variety/skills use, achievement, influence in work, collegiality, supervision, expectations, information regarding performance, communication from department, participation, job security and satisfaction with pay are illustrated in **Graph 3.6** with the comparison of the IT sample group (N= 33) and the lecture sample group (N = 33). From the results as indicated in the following graph, the responses of the survey are as follows.

Emotional overload

Comparison of the emotional overload is illustrated in Graph 3.6. The sample mean for the IT group is 3.21 and the sample mean for the Lecturer group is 2.77. The sample size for both groups is 33. From Table 3.7 one can see the t-statistic and a p-value, the $t = -3.080$ with 64 degrees of freedom, and a p-value of 0.0031.

Null hypothesis: means of two groups are equal.

$$H_0: u_1 = u_2$$

Alternative: means of the two groups are not equal.

$$H_a: u_1 \neq u_2$$

The significance level is set at 0.1 and the test resulted in p-value under 0.1 is significant. The null hypothesis will be rejected in favour of the alternative hypothesis. The conclusion is that the mean emotional overload for group Lecturer is smallest. Thus the emotional overload is higher for the IT group than the Lecturer group. The mean emotional overload for the Lecturer group was significantly smaller than for the IT group.

Achievement

Comparison of the achievement is illustrated in Graph 3.6. The sample mean for the IT group is 3.21 and the sample mean for the Lecturer group is 2.77. The sample size for both groups is 33. From Table 3.7 one can see the t-statistic and a p-value, the $t = -3.080$ with 64 degrees of freedom, and a p-value of 0.0031.

Null hypothesis: means of two groups are equal

$$H_0: \mu_1 = \mu_2$$

Alternative: means of the two groups are not equal

$$H_a: \mu_1 \neq \mu_2$$

The significance level is set at 0.1 and the test resulted in p-value under 0.1 is significant. The null hypothesis will be rejected in favor of the alternative hypothesis. The conclusion is that the mean achievement for group Lecturer is smallest. Thus the achievement is higher for the IT group than the Lecturer group. The mean emotional overload for the Lecturer group was significantly smaller than for the IT group.

Collegiality

Comparison of the *Collegiality* is illustrated in Graph 3.6. The sample mean for the IT group is 1.69 and the sample mean for the Lecturer group is 1.88. The sample size for both groups is 33. From Table 3.7 one can see the t-statistic and a p-value, the $t = 1.338$ with 64 degrees of freedom, and a p-value of 0.1856.

Null hypothesis: means of two groups are equal.

$$H_0: \mu_1 = \mu_2$$

Alternative: means of the two groups are not equal.

$$H_a: \mu_1 \neq \mu_2$$

The significance level is set at 0.1 and the test resulted in p-value above 0.1. The alternative hypothesis will be rejected in favour of the null hypothesis. The conclusion is that the mean *Collegiality* for group IT is significantly equal to group Lecturer.

Supervision

Comparison of the *Supervision* is illustrated in Graph 3.6. The sample mean for the IT group is 1.71 and the sample mean for the Lecturer group is 1.95. The sample size for both groups is 33. From Table 3.7 one can see the t-statistic and a p-value, the $t = 1.580$ with 64 degrees of freedom, and a p-value of 0.1191.

Null hypothesis: means of two groups are equal.

$$H_0: u_1 = u_2$$

Alternative: means of the two groups are not equal.

$$H_a: u_1 \neq u_2$$

The significance level is set at 0.1 and the test resulted in p-value above 0.1. The alternative hypothesis will be rejected in favour of the null hypothesis. The conclusion is that the mean *Supervision* for group IT is significantly equal to group Lecturer.

Information regarding performance

Comparison of the *Information regarding performance* is illustrated in Graph 3.6. The sample mean for the IT group is 2.17 and the sample mean for the Lecturer group is 2.21. The sample size for both groups is 33. From Table 3.7 one can see the t-statistic and a p-value, the $t = 0.254$ with 64 degrees of freedom, and a p-value of 0.8001.

Null hypothesis: means of two groups are equal.

$$H_0: u_1 = u_2$$

Alternative: means of the two groups are not equal.

$$H_a: u_1 \neq u_2$$

The significance level is set at 0.1 and the test resulted in p-value above 0.1. The alternative hypothesis will be rejected in favour of the null hypothesis. The conclusion is that the mean *Information regarding performance* for group IT is significantly equal to group Lecturer.

Job security

Comparison of the *Job security* is illustrated in Graph 3.6. The sample mean for the IT group is 2.80 and the sample mean for the Lecturer group is 2.98. The sample size for both groups is 33. From Table 3.7 one can see the t-statistic and a p-value, the $t = 0.742$ with 64 degrees of freedom, and a p-value of 0.4609.

Null hypothesis: means of two groups are equal.

$$H_0: u_1 = u_2$$

Alternative: means of the two groups are not equal.

$$H_a: u_1 \neq u_2$$

The significance level is set at 0.1 and the test resulted in p-value above 0.1. The alternative hypothesis will be rejected in favour of the null hypothesis. The conclusion is that the *Job security* for group IT is significantly equal to group Lecturer.

Satisfaction with pay

Comparison of the *Satisfaction with pay* is illustrated in Graph 3.6. The sample mean for the IT group is 3.26 and the sample mean for the Lecturer group is 3.09. The sample size for both groups is 33. From Table 3.7 one can see the t-statistic and a p-value, the $t = -1.128$ with 64 degrees of freedom, and a p-value of 0.2633.

Null hypothesis: means of two groups are equal.

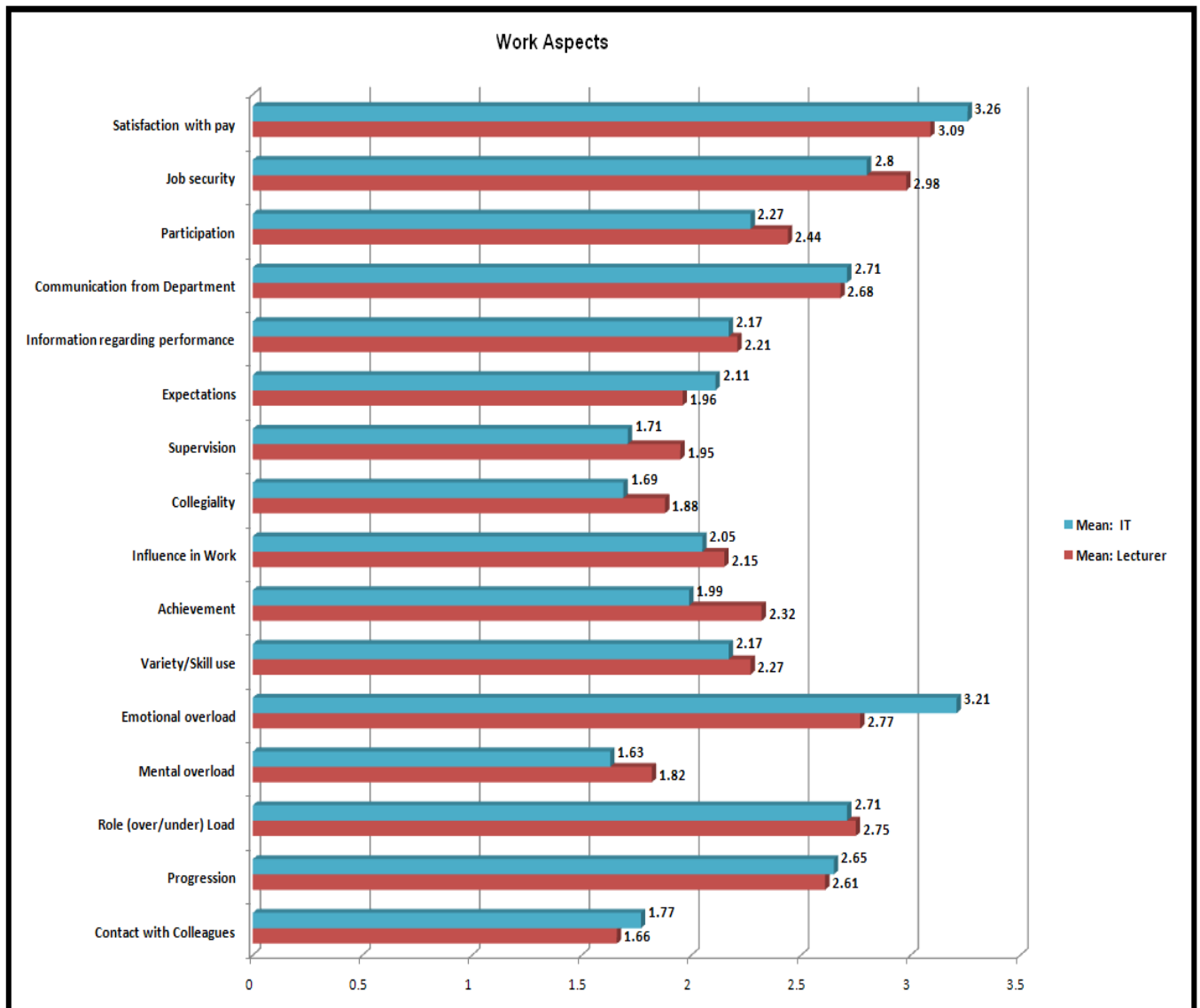
$$H_0: u_1 = u_2$$

Alternative: means of the two groups are not equal.

$$H_a: u_1 \neq u_2$$

The significance level is set at 0.1 and the test resulted in p-value above 0.1. The alternative hypothesis will be rejected in favour of the null hypothesis. The conclusion is that the mean *Satisfaction with pay* for group IT is significantly equal to group Lecturer.

Graph 3.6: Different aspects of the work environment of respondents



3.7 SUMMARY

This chapter analysed the data collected via the questionnaires that were handed out. A comparison was made of employees engaging in technical support work (IT) against employees that are engaged in educational teaching work (Lecturer). These two occupations were compared in terms of work engagement regarding characteristics such as vigour, dedication and absorption.

Thereafter a comparison was made with specific aspects of the work and work environment such as contact with colleagues, progression, role (over/under) load, mental overload, emotional overload, variety/skills use, achievement, influence in work, collegiality, supervision, expectations, information regarding performance, communication from a department, participation, job security and satisfaction with pay.

The following important issues were identified:

Engagement test:

- The Vigour dimension test is reliable and generally accepted with the alpha 0.76. The resilient mentally question has the strongest relationship to the test. The overall mean is 3.94 and the median is 3.83. This test revealed that often or once a week both lecturers and IT personnel feel bursting with energy at work, strong and vigorous about work, want to go to work, can continue working for very long periods at a time and is very resilient mentally. The hypothesis test indicated that the vigour dimension for group IT is significantly equal to group Lecturer.
- Dedication dimension has a very good reliability with alpha 0.88. The question about enthusiastic about work has the strongest relationship with the test. The mean of 4.22 and a median of 4.6 indicate the feeling of very often or a few times a week that work is done with full of meaning and purpose. Both lecturers and IT personnel feel enthusiastic about their job, the job is inspiring, proud of the work that was done and that the job is challenging. The hypothesis test indicated that the dedication dimension for group IT is higher than the Lecturer group.
- The test on Absorption indicated that this test is reliable with alpha 0.8. The question with the strongest relationship to absorption is the question about getting carried away by working. The group mean of 4.05 and median of 4.17 indicates that both lecturer and IT personnel feel that time flies when working, forget about everything around him, happy when working intensively, get carried away when working and find it difficult to detach from work. The hypothesis test indicated that the dedication dimension for the lecturer group was significantly smaller than for the IT group.

Work and work environment test:

- Emotional overload with an alpha of 0.71 indicates it is a reliable test. The question with the strongest relationship to this test is the question about work putting an employee in an upsetting situation. With a mean of 2.99 and a median of 3 indicates that the emotional overload aspect in the work environment let both lecturers and IT personnel feel sometimes confronted at work with things that affect a person personally, in contact with difficult people at work and emotional upsetting situations. The hypothesis test indicates emotional overload is higher for the IT group than the Lecturer group.
- The test for achievement has an alpha of 0.80 that indicates the test is reliable. The question about work offering opportunities for personal growth and development has the strongest relationship with the achievement test. A mean of 2.16 and a median of 2 indicate that both lecturers and IT personnel see often that their job offers opportunities for personal growth and development, work gives the feeling of achieving something and that their job offers the possibility of independent thought and action. The hypothesis test indicates the IT group has a higher level of achievement in the work environment than the Lecturer group.
- The collegiality test with an alpha of 0.71 indicates that the reliability is generally accepted. The question with the strongest relationship to this test is about employees that can ask their colleagues for help. With a mean of 1.78 and median of 1.67 it indicates that both lecturers and IT personnel evaluate that often their job offers the possibility to progress financially, the organisation gives them the opportunities to follow training courses and that their job offers the opportunity to be promoted. The hypothesis test indicates that the collegiality dimension for group IT is significantly equal to group Lecturer.
- An alpha of 0.75 indicates that the supervision test is reliable. Questions about 'can personally count on supervisor when experiencing difficulties in the work' have the strongest relationship with the supervision test. A mean of 1.82 and a median of 1.67 indicate that both lecturers and IT personnel feel often in the work environment that they can count on colleagues when experiencing difficulties in the work, can ask colleagues for help and get along with colleagues at work. The hypothesis test

indicates that the supervision aspect in the work environment for group IT is significantly equal to group Lecturer.

- Information regarding performance with an alpha of 0.75 indicates it is a reliable test. The question with the strongest relationship to this test is the question about receiving sufficient information on the purpose of the work. With a mean of 2.19 and a median of 2.33 it indicates that information regarding this aspect in the work environment let both lecturers and IT personnel feel often that they receive sufficient information on the purpose of the work, receive sufficient information on the results of their work and that their supervisor informs them on their work performance. The hypothesis test indicate that the performance aspect in the work environment for group IT is significantly equal to group Lecturer.
- Satisfaction with pay has an alpha of 0.80, which indicates that the reliability is very good. The question of 'do you feel you are getting paid enough for your work' has the strongest relationship with the satisfied with pay test. The mean of 3.18 and median of 3 indicate that both lecturers and IT personnel feel sometimes that the organisation pays good salaries and that they can live comfortably on the pay received. The hypothesis test indicates that the satisfaction with pay aspect in the work environment for group IT is significantly equal to group Lecturer.

Chapter 4 addresses the conclusions and recommendations as outlined in Chapter 1.

CHAPTER 4

CONCLUSIONS AND RECOMMENDATIONS

4.1 INTRODUCTION

This chapter will take the information from the previous chapters to draw conclusions and make recommendations about the occupational wellness of employees.

In this study, the primary objective was to compare the different occupational groups of an academic institution in the North-West province in South Africa in terms of engagement. The secondary objectives were to conceptualise the wellness and health, occupational stress, occupational wellness, burnout and work engagement.

In pursuit of these objectives, the study focused on the wellness of employees in the work environment. Firstly, the purpose of the study was provided in Chapter 1 by means of a problem statement that showed the importance of the wellness of employees in organisations. Research methods and basic concepts were explained and clarified. Secondly, a literature review was done in Chapter 2, discussing the health and wellness in terms of burnout and engagement. Thirdly, in Chapter 3 the results of the empirical research were interpreted to compare the sample groups, and see if there is a difference in the levels of job engagement and aspects of their work environment.

4.2 CONCLUSIONS

4.2.1 Problem statement

The most valuable assets in any organisation are the employees. Organisations struggle worldwide to meet production and service demands, because these demands are directly dependent on the ability, commitment and skills of their employees (Kimball & Nink, 2006).

Wellness of employees is of clear importance for organisations to be effective. But globally organisations fail to address wellness and see it as a low priority. Wellness presents a huge challenge for employees in many workplaces (Dornan, 2010:9-15).

The increasing amount of research on burnout indicates how this phenomenon has become a major factor in organisations. To prevent or deal with burnout in organisations, it is important to frame interventions in terms of the positive goals to be achieved, and not just the negative problems to be fixed (Halpern & Murpy, 2005:103). It is very important for organisations to implement strategies to promote engagement in order to prevent burnout among their employees.

4.2.2 Literature key findings

Wellness and health is not just the physical wellness of a person, but also the mental wellbeing. It is essential for people to be aware of their wellness, because a decrease in wellness can lead to stress. By using the wellness continuum tool, one can embrace the perspective to create health.

Occupational stress is known as the harmful physical and emotional responses that occur when the requirements of the job do not match the capabilities, resources or needs of workers. The stress experienced can play a mediating role between impact of the job stressors and the work-related outcomes.

Burnout has a negative and engagement a positive relationship with work. Engagement is also known as a positive antipode to burnout. The characteristics of engagement are the direct opposite of the burnout characteristics. Employees experience that energy turns into exhaustion, involvement turns into cynicism and efficiency turns into inefficiency. Developing job engagement starts with the development of an employee's job or role at an organisation. Areas in the work environment that can lead to burnout or engagement are work overload, lack of control, breakdown of community, absence of fairness and values conflict.

4.2.3 Questionnaire key findings

The first survey used to determine the work engagement of employees was the Work and Well-being questionnaire (UWES). This survey was divided into categories that can be classified in terms of:

- Vigour.
- Dedication.
- Absorption.

On the basis of the analysed data, the Work and Well-being questionnaire (UWES) can be separated into three categories based on the abovementioned classifications. The sample can be split into two main groupings, namely teaching staff and IT staff.

Vigour

When comparing the two sample groupings, the findings were that Vigour dimensions of the sample was significantly equal. This means that the sample has the same levels of high energy and mental resilience while working. The study sample is willing to invest effort in his or her work and will face difficulties in a positive manner.

Dedication

The dedication dimension in this sample indicated that the IT worker has a significant higher level of dedication than the Lecturer. Thus the IT worker has a higher level of doing his or her work with a sense of significance and is more enthusiastic and inspired about all aspects in his or her job than the Lecturer group.

Absorption

The absorption dimension indicated that the level of absorption in this study sample is significantly smaller for the Lecturer group than for the IT group. Absorption refers to a person that is characterised by being concentrated and happy in one's work activities (Bakker & Leiter, 2010:180-184).

The second survey was used to determine and obtain an accurate picture of the work and work environment of a person – the Job Resources questionnaire. This survey was divided into categories that can be classified in terms of:

- Contact with Colleagues.
- Progression.
- Role (over/under) Load.
- Mental overload.
- Emotional overload.
- Variety/Skills use.
- Achievement.
- Influence in Work.
- Collegiality.
- Supervision.
- Expectations.
- Information regarding performance.
- Communication from a Department.
- Participation.
- Job security.
- Satisfaction with pay.

On the basis of the analysed data, the Job Resources questionnaire can be separated into the above categories based on the abovementioned classifications.

When this data were analysed the following categories were left out due to the fact that the analytical tool of Cronbach's Alpha Coefficient indicated that the following aspects were not reliable or that their reliability was low.

- Contact with Colleagues.
- Progression.
- Role (over/under) Load.
- Mental overload.
- Variety/Skills use.
- Influence in Work.
- Expectations.

- Communication from Department.
- Participation.

When comparing the two sample groupings, the findings were that the emotional overload and achievement for the sample population is higher for the IT staff than the Lecturing staff. The collegiality, supervision, information regarding performance and satisfaction with pay were at the same level for both the IT group and Lecturer group.

4.3 LIMITATIONS OF THE STUDY

In the study the following limitations were identified:

- 120 questionnaires were distributed to the study group, but only 60 were received for the study. This has led to a relatively small (N = 66) sample and therefore implies that the findings in this study cannot be generalised to the specific education institution and neither to other education institutions.
- Only one institution was used for this study. This can lead to responses influenced by the nature and culture of the specific education institution.
- Due to the fact that the Lecturing staff was more widely distributed in the education institution with different managers and directors than the IT staff, it could lead to responses influenced by the culture of the different departments.
- Surveys were distributed only in English to the sample group. English was a second or third language for some of the respondents; this could have led to misunderstandings and incorrect interpretations of the questions asked.
- Some of the Lecturing staff and IT staff did not trust the confidentiality of the tests, which could have led to respondents inaccurately answering some questions, afraid of being identified with the answers given.
- Attention should be given to the home language of the individuals completing the questionnaires. Translating problems might contribute to misunderstanding of some of the questions.

4.4 RECOMMENDATIONS

Despite the limitations of the study, the results can have important implications for organisations focusing on engagement and future studies.

4.4.1 Recommendations to organisations

Awareness of the positive implications of engagement should be fostered in organisations. Many organisations focus more on burnout than on engagement. Work engagement focuses on energy, involvement and efficacy, which is in complete contrast with burnout.

Employees should be assessed once or twice a year to determine their levels of engagement. Fully engaged employees are an asset to any company. Up to date information of employee engagement will give managers the advantage to identify low levels of engagement at an early stage.

Fostering and maintaining a fully engaged workforce is not a simple task. It takes time and effort to achieve high levels of engagement within an organisation. It is a continuous process that needs to be upheld. Managers should be made aware of the positive implications of engagement and encouraged to create a motivational climate

Engagement is not an HR responsibility, although HR is a key role-player. Senior managers should be the first to be highly engaged. It will be difficult to have highly engaged employees without highly engaged managers. Managers should be in a position to support the employees.

Not all employees will have the same level of engagement. When appointing new employees managers should take note of the characteristics of engagement in possible candidates.

4.4.2 Recommendations for future research

- Further work needs to be done to establish whether the dimensions of engagement can be implemented on all levels of the organisation and how these should be implemented. This study can be used to develop a framework to assist companies with the support of employees suffering from burnout, by focussing more on engagement.
- Further research might explore and focus more on the comparison of the burnout dimensions against the engagement dimensions.

4.5 SUMMARY

This chapter has taken information from the previous chapters to draw conclusions and make recommendations about the occupational wellness of employees.

The key finding was that the IT sample has a higher level of absorption and dedication of engagement than the lecturer group. Secondly, the findings were that the emotional overload and achievement for the sample is higher for the IT staff than the lecturing staff. The collegiality, supervision, information regarding performance and satisfaction with pay were at the same level for both the IT group and lecturer group.

Limitations were identified along with recommendations to the organisation and future research areas were outlined.

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Appendix A: Work and Well-being questionnaire

Work & Well-being Survey (UWES) ©

The following 17 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, cross the '0' (zero) in the space after the statement. If you have had this feeling, indicate how often you feel it by crossing the number (from 1 to 6) that best describes how frequently you feel that way.

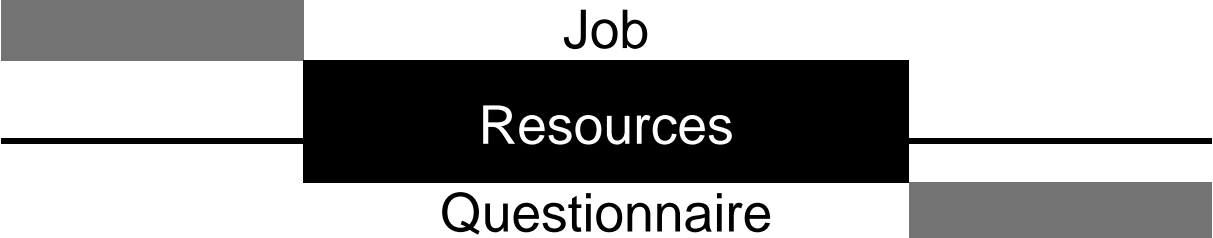
	Almost never	Rarely	Sometimes	Often	Very often	Always
0	1	2	3	4	5	6
Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

1. _____ At my work, I feel bursting with energy* (VII)
2. _____ I find the work that I do full of meaning and purpose (DE1)
3. _____ Time flies when I'm working (AB1)
4. _____ At my job, I feel strong and vigorous (VI2)*
5. _____ I am enthusiastic about my job (DE2)*
6. _____ When I am working, I forget everything else around me (AB2)
7. _____ My job inspires me (DE3)*
8. _____ When I get up in the morning, I feel like going to work (VI3)*
9. _____ I feel happy when I am working intensely (AB3)*
10. _____ I am proud on the work that I do (DE4)*
11. _____ I am immersed in my work (AB4)*
12. _____ I can continue working for very long periods at a time (VI4)
13. _____ To me, my job is challenging (DE5)
14. _____ I get carried away when I'm working (AB5)*
15. _____ At my job, I am very resilient, mentally (VI5)
16. _____ It is difficult to detach myself from my job (AB6)
17. _____ At my work I always persevere, even when things do not go well (VI6)

* Shortened version (UWES-9); VI= vigor; DE = dedication; AB = absorption

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Appendix B: Job Resources Questionnaire



**Job
Resources
Questionnaire**

The purpose of this questionnaire is to obtain an accurate picture of how you personally evaluate specific aspects of your work and work environment. Please do not omit any questions.

SCALE:

1 = Always	2 = Often	3 = Sometimes	4 = Never
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		STATEMENTS	SCALE			
Pa1	1	Do you have too much work to do?	1	2	3	4
M11	2	Do you have to be attentive to many things at the same time?	1	2	3	4
E11	3	Are you confronted in your work with things that affect you personally?	1	2	3	4
Vw1	4	In your work, do you repeatedly have to do the same things?	1	2	3	4
O11	5	Does your job offer you opportunities for personal growth and development?	1	2	3	4
Iw1	6	Do you have freedom in carrying out your work activities?	1	2	3	4
Rc1	7	Can you count on your colleagues when you come across difficulties in your work?	1	2	3	4
Rs1	8	Can you count on your supervisor when you come across difficulties in your work?	1	2	3	4
Aw1	9	Do you know exactly what other people expect of you in your work?	1	2	3	4
I1	10	Do you receive sufficient information on the purpose of your work?	1	2	3	4
C1	11	Are you kept adequately up-to-date about important issues within the education department?	1	2	3	4
P1	12	Can you discuss work problems with your direct supervisor?	1	2	3	4
Cp1	13	Do you have contact with colleagues as part of your work?	1	2	3	4
Uf1	14	Do you need to be more secure that you will still be working in one year's time?	1	2	3	4
Re1	15	Do you think that the education department pays good salaries?	1	2	3	4
Cp1	16	Does your job offer you the possibility to progress financially?	1	2	3	4
Pa2	17	Do you work under time pressure?	1	2	3	4

MI2	18	Do you have to give continuous attention to your work?	1	2	3	4	
EI2	19	Do you have contact with difficult children in your work?	1	2	3	4	
Vw2	20	Does your work make sufficient demands on all your skills and capacities?	1	2	3	4	
OI2	21	Does your work give you the feeling that you can achieve something?	1	2	3	4	
Iw2	22	Do you have influence in the planning of your work activities?	1	2	3	4	
Rc2	23	If necessary, can you ask your colleagues for help?	1	2	3	4	
Rs2	24	Do you get on well with your supervisor?	1	2	3	4	
Aw2	25	Do you know exactly for what you are responsible and which areas are not your responsibility?	1	2	3	4	
I2	26	Do you receive sufficient information on the results of your work?	1	2	3	4	
C2	27	Is the education department's decision-making process clear to you?	1	2	3	4	
P2	28	Can you participate in decisions about the nature of your work?	1	2	3	4	
C2	29	Can you have a chat with colleagues during working hours?	1	2	3	4	
Uf2	30	Do you need to be more secure that you will keep your current job in the next year?	1	2	3	4	
Re2	31	Can you live comfortably on your pay?	1	2	3	4	
Cp2	32	Does your organisation give you opportunities to follow training courses?	1	2	3	4	
Pa3	33	Do you find that you do not have enough work?	1	2	3	4	
MI3	34	Do you have to remember many things in your work?	1	2	3	4	
EI3	35	Does your work put you in emotionally upsetting situations?	1	2	3	4	
Vw3	36	Do you have enough variety in your work?	1	2	3	4	
OI3	37	Does your job offer you the possibility of independent thought and action?	1	2	3	4	
Iw3	38	Can you participate in the decision about when a piece of work must be completed?	1	2	3	4	
Rc3	39	Do you get on well with your colleagues?	1	2	3	4	
Rs3	40	In your work, do you feel appreciated by your supervisor?	1	2	3	4	
Aw3	41	Do you know exactly what your direct boss thinks of your performance?	1	2	3	4	
I3	42	Does your direct supervisor inform you about how well you are doing your work?	1	2	3	4	
C3	43	Is it clear to you whom you should address within the education department for specific problems?	1	2	3	4	
P3	44	Do you have a direct influence on your school's decisions?	1	2	3	4	
Cp3	45	Do you find that you have enough contact with colleagues during working hours?	1	2	3	4	
Uf3	46	Do you need to be more secure that next year you will keep the same function level as currently?	1	2	3	4	
Re3	47	Do you think you are paid enough for the work that you do?	1	2	3	4	
Cp3	48	Does your job give you the opportunity to be promoted?	1	2	3	4	

