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THE EFFECT OF KNOWLEDGE SHARING ON EMPLOYEE ENGAGEMENT

by

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ABSTRACT

The purpose of this study was to assess the impact of knowledge sharing as an intervention geared toward improving employee engagement. In the process of pursuing this purpose, literature on employee engagement and knowledge sharing was reviewed. The literature reviews culminated in the development of operational models for both employee engagement and knowledge sharing and an illustration of the link between these two multi-dimensional constructs.

The employee engagement research instrument consisting of a 12-item questionnaire and a 5-point Likert scale was developed in line with theoretical requirements. The research was located within an undisclosed provincial government department in Gauteng, South Africa. This was done to ensure the confidentiality of the participants and the specific government department concerned as disclosure could possibly compromise the political sensitivity of the activities of the department. A sample of one-hundred 100 employees was selected from an available population of 189. The research consisted of three phases; a baseline survey, which sought to establish the existing level of employee engagement, an intervention phase, conducted over a three day period consisting of eight knowledge sharing interventions, and a post-assessment phase, which endeavoured to establish if any differences to the level of engagement would be evident, when compared to the pre-assessment state of engagement.

The study found no significant difference between the pre and post test scores of the experimental group and concluded that knowledge sharing does not have a significant impact on increasing the level of employee engagement. It further concluded that despite not being significant that the greatest impact was evident in the cognitive dimension of employee engagement.

This study goes on to recommend that further longitudinal intervention research studies are needed to establish the impact of the different motivators that drive fluctuations in the level of employee engagement. The study also recommended that a theoretically reliable instrument be developed, which targets all dimensions of employee engagement (the physical, emotional and cognitive components). The instrument will allow for the establishment of existing levels of employee engagement and an indication of areas of improvement to ensure targeted interventions are conceived.

CHAPTER ONE: INTRODUCTION AND PROBLEM STATEMENT

1. INTRODUCTION

During the past few years there has been a surge in the popularity of literature on employee engagement. In an age where organisational competitive advantage is dependent more on the presence of intellectual capital than the presence of labour, a commitment to ensuring that employees are engaged at work has become paramount (Rangarajan, 2006). Research by various organisations indicates that the advantages of having engaged employees are a greater level of productivity and better financial performance (Wellins, Bernthal, & Phelps, 2005).

Despite the abovementioned findings Towers Perrin (2006), for example, found in their 2003 study that 17% of the target group were highly engaged versus the 14% in their 2005 study. The effort of understanding what drives the engagement of employees is thus relevant and pertinent.

2. BACKGROUND TO THE PROBLEM

An overview of the literature indicates various definitions of knowledge sharing and employee engagement. Given that these two concepts form the basis of this study it seems appropriate to provide a working definition of these concepts at this stage. According to Wang and Noe (2010, p. 117) knowledge sharing refers to "…the provision of task information and know-how to help others and to collaborate with others to solve problems, develop new ideas, or implement policies or procedures". Song and Chermack (2008) consider knowledge sharing to be a process of socialisation.

Harter, Schmidt, and Hayes (2002) described engagement as the individual's involvement and satisfaction with as well as enthusiasm for work. Similarly, Robinson, Perryman, and Hayday, (2004) express employee engagement as a positive attitude, held by the employee, towards the organisation and its' value. Schmidt (2004) argues that engagement includes both satisfaction and commitment.

The purpose of this section is to introduce the concepts of employee engagement and knowledge sharing, which form the basis for arguing that knowledge sharing leads to an increase in employee engagement. These two concepts are explored in more detail below.

2.1. Employee Engagement

The concept of employee engagement has received much attention, due to its complexity. While there are real benefits to having engaged employees, there is still an on-going debate over what employee engagement actually is, and what the core drivers of engagement are (Saks, 2006; Simpson, 2009). This is further complicated by the fact that many organisations have found it difficult to keep their employees engaged in the work at hand during tough economic times. Towers Perrin (2006), for example, found in their 2003 study that 17% of the target group were highly engaged versus the 14% in their 2005 study (Wellins, Bernthal, & Phelps, 2005). Organisations have to find, not only, what will engage their employees, but must work harder amidst a recessionary climate, which has invariably resulted in job losses and organisational cut-backs (Dearlove & Crainer, 2009).

Organisations that want to survive these difficult times must seek to understand how to engage their most valuable asset to ensure effective and lasting business continuity (Dearlove & Crainer, 2009). A deeper, more concrete understanding of what drives the engagement of employees has never been more opportune, relevant or pertinent. Measuring and monitoring employee engagement within the public sector has been highlighted as an area of need as public sector organisations demand selfless service and higher levels of motivation (Maslach, Schaufeli & Leiter, 2001). The authors highlight that civil servants work in a demanding environment where employee exhaustion is a common occurrence (Maslach, Schaufeli & Leiter, 2001). Whilst, the outcomes of engagement may not differ between the public or private sectors (Scottish Executive Social Research, 2007), "findings suggest that the public sector performs weaker in areas relating to strategic vision and change management, both of which are important to employee engagement" (Scottish Executive Social Research, 2007, p. 2). Truss, Soane, Edwards, Wisdom, Croll and Burnett (2006) also found that employees in the public sector were often frustrated by not being provided opportunities to use their abilities and therefore had a more negative experience of work.

Thus, understanding the core drivers of employee engagement is highlighted by practitioners and theorists as the key to discovering the benefits of having engaged employees in the public sector as well as in the private sector (Melcrum, 2005; Towers Perrin, 2003; Wellins, Bernthal, & Phelps, 2005). The Scottish Executive Social Research (2007) further highlights that organisations must focus on those conditions which "create the capacity to engage" (Macey et al., 2009). These conditions are not explicit such as pay for work which are written into the contract of employment and therefore require initiative from the organisation, e.g. improving two-way communication, promoting a strategic vision and building trust.

Having now provided a brief overview of the concept employee engagement, the next section will focus on knowledge sharing.

2.2. Knowledge Sharing

"Knowledge is power" (Sir Francis Bacon, 1597). This statement from almost five centuries ago is still relevant today for organisations working in a knowledge economy (Rangarajan, 2006). The value of intellectual capital, as a scarce resource that organisations must nurture, is highlighted by Nahapiet and Ghoshal (1998) and Bontis and Fitz-enz (2002) who recommend that if organisations want to preserve intellectual capital, they need to consider methods, such as knowledge sharing, work incentives and more focused retention strategies. Organisations that wish to attain and sustain competitive advantage must entrench a focus on advancing and retaining knowledge within their organisations.

Knowledge resides in various places (Apostolou & Mentzas, 1999). Knowledge can be evidential or explicit, as well as tacit or hidden in people (Apostolou & Mentzas, 1999). Tacit knowledge is widely considered as knowledge that is most sought after, most valuable to the organisation, and more difficult to preserve, for when an employee leaves, his/her acquired innate knowledge is lost from the organisation (Spender, 1996). Unless the organisation can retain the employee, or engage in an effort to transfer that knowledge, the knowledge it seeks to preserve will be lost (Jayne, 2006). The organisation, consequently, runs the risk of losing its competitive advantage.

Whilst the literature highlights two-way communication as a driver of employee engagement (Scottish Executive Social Research, 2006), knowledge sharing, as a form of communication, has not been explored as a driver of employee engagement.

3. PROBLEM STATEMENT

Gallup (2001) and Towers and Perrin (2003) indicate that the higher the level of employee engagement, the greater the ability for the organisation to improve performance will be. Their research found that the results of employee engagement are higher retention, lower absenteeism, increased productivity and increased financial performance. The benefits of employee engagement to the organisation are undeniably valuable and commitment by the organisation toward strengthening or increasing the level of engagement is an investment with high returns (Wellins, Bernthal & Phelps, 2005).

Information sharing, a concept similar to knowledge sharing, yet distinct in nature, has also been found to contribute to the level of employee engagement (Schaufeli & Salanova, 2007). In creating the capacity to engage, Macey, Schneider, Barbera and Young (2009) highlight the need for organisations to create the conditions for information sharing to enable employee engagement.

Organisations that are able to engage their employees are better able to retain their employees (Greenberg, 2004; Towers Perrin, 2003). The literature is silent, however, on whether knowledge

sharing will improve the level of employee engagement. It is this gap in the literature that this study hopes to fill by providing insight into determining the effectiveness of a knowledge sharing intervention on employee engagement.

Given the theoretical background and problem statement outlined above, the aim of this study is to determine the effect of a knowledge sharing intervention on the level of employee engagement within a provincial government department.

More specifically, the objectives of this research are to establish:

1. a definition of the concept employee engagement;
2. a definition of the concept knowledge sharing;
3. the relationship between employee engagement and knowledge sharing according to literature; and
4. if a knowledge sharing intervention can impact the level of employee engagement in a provincial government department.

4. RATIONALE FOR THE STUDY

South Africa, along with the rest of the world, has recently survived tough economic times, wherein some of the most stable organisations have had to make drastic changes to aid survival (Anand, 2009). Organisations that wanted to survive these difficult times had to understand how to engage their most valuable asset so as to ensure business continuity (Dearlove & Crainer, 2009). Many organisations though continue to find it difficult to keep their employees engaged during tough economic times. Organisations have to therefore determine, not only, what will engage their employees, but also how to engage them in a recessionary climate, which has resulted in organisational cut-backs (Dearlove & Crainer, 2009).

The impetus for this study lies in the researcher's personal experiences in the workplace. Conducting the study in a public service organisation, the researcher believed, would be an interesting setting for the study of employee engagement as this sector relies on people who are dedicated to self-less service and require a higher level of motivation. It is an area of work that Maslach and Leiter (2001) remark, is demanding and where employee exhaustion is common.

The researcher's interest was further sparked by the significant lack of relevant studies into the concepts of knowledge sharing and the effects it would have on employee engagement. Questions such as "Could knowledge sharing impact the level of employee engagement?" "Could employees come together to share experiences and expectations of work which would impact the level of engagement an employee would feel toward the organisation?" were highlighted and these formed the basis of the research study. Answering these questions would aid in making a contribution to both the areas of knowledge sharing and employee engagement.

5. POTENTIAL CONTRIBUTION OF THE STUDY

One of the objectives of this research is to establish if employee engagement can be increased by knowledge sharing. In achieving this objective, this research will contribute to the existing theoretical and conceptual body of knowledge. From a practical contribution perspective this could aid organisations in how to construct knowledge sharing interventions inside the organisation that will increase employee engagement.

In the next section an outline of the structure will be provided.

6. DISSERTATION STRUCTURE

Having established the background to the problem, the need for the study and the research objectives (Chapter 1), this thesis begins by establishing the background to the concepts under study - employee engagement and knowledge sharing (Chapter 2). Having understood the existent literature and debates surrounding the constructs under study, the next chapter outlines the research methods and tools that will be utilised to achieve the objectives and aim of the research study (Chapter 3). This chapter concludes with the researcher indicating the measures that will be taken to ensure that this study is conducted within the ethical boundaries that the University of Johannesburg subscribes to. The research findings of the study are then unpacked in Chapter 4, which is followed by a discussion of the key findings and recommendations for future studies (Chapter 5).

7. CONCLUSION

This chapter provided the rationale for the research study, a brief overview of current literature and concluded with the dissertation outline. The next chapter will provide an overview of relevant literature as it pertains to this research study. The review provided over the next chapter seeks to offer an overview of the existent literature, the debates between both theorists and practitioners and insights into the concepts under investigation.

CHAPER TWO: LITERATURE OVERVIEW AND CONTEXTUALISATION

1. INTRODUCTION

This chapter will provide insight into current literature with regard to concepts such as engagement, specifically employee engagement. The differences between employee engagement and work engagement will be explored and presented as they pertain directly to understanding the complexity of the concept under investigation and its relationship to knowledge sharing. In this chapter the concept of knowledge sharing is also explored and unpacked and its relationship to information sharing is considered.

2. EXPLORING ENGAGEMENT

Engagement has become a popular term in business as organisations strive to understand why and how this concept influences the experience of an employee at work (Macey & Schneider, 2008). Workforce studies, conducted by consultants in various types of organisations around the world, have found a significant relationship between the level of employee engagement and the financial performance that organisations realise (Gallup, 2001; Towers Perrin, 2003). Theorists as early as Kahn (1990) illustrated that engagement in the workplace could impact on organisational performance.

In the next section, employee engagement will be unpacked to ensure that the concept engagement within this study is clearly understood.

2.1. Defining employee engagement

The concept of engagement came to the fore in 1990 when Kahn released a model of Personal Engagement. Other models followed over the next fifteen years (Bakker & Demerouti, 2008; Harter et al., 2002; Maslach & Leiter, 1997). At present though, the term is still being referred to as "relatively new" (Macey & Schneider, 2008; Saks, 2006). A generally accepted definition of what employee engagement is exactly has not been developed. Arguments abound as to whether employee engagement is just "…old wine in a new bottle" (Newman & Harrison, 2008, p. 31), or whether it deserves more attention because it brings competitive advantage (Robinson et al., 2004). Debate is further encouraged by the differences between work engagement and employee engagement.

2.1.1. Engagement versus other constructs

Some authors refer to engagement as similar to organisational commitment (Ferrer, 2005; Fleming, 2009; Wellins & Concelman, 2005). Robinson et al. (2004, p. 2) define engagement as "…one step up from commitment". They state that, "…engagement contains many of the elements of both commitment and organisational citizenship behaviour …neither commitment nor organisational behaviour reflect sufficiently the two aspects of engagement, its two-way nature and the extent to which engaged employees are expected to have an element of business awareness" (Robinson et al., 2004, p. 2). Saks (2006) agrees that engagement differs from organisational commitment.

While organisational commitment refers to an employee's attitude to work, engagement goes beyond attitude and reflects the level of attentiveness to work and performance. Macey et al. (2009) distinguish commitment from engagement as the distinction between a mere feeling of attachment to the organisation and the internalisation of organisational goals by the individual. When an employee is engaged, the individual feels that s/he shares a common identity with the organisation.

According to May, Gilson, and Harter (2004), engagement is most closely associated with job involvement. Job involvement is defined as 'a cognitive or belief state of psychological identification' (Kanungo 1982:342). According to Kular, Gatenby, Rees, Soane and Truss (2008), the focus of job involvement is on cognitions, whilst engagement goes beyond this and includes and emotional and behavioural component.

Harter et al. (2002) equate employee engagement to job satisfaction and motivation, whilst Crozier (2010, p. 35) asserts that "employees can be satisfied without being engaged". Schmidt (2004), argues that engagement envelopes both commitment and satisfaction; together they can contribute to engagement, but individually they cannot guarantee that engagement will occur.

Literature also refers to Organisational Citizenship Behaviours (OCB) that is defined as those extra work related behaviours which go above and beyond the routine duties prescribed by their job descriptions or measured in formal evaluations (Bateman and Organ, 1983). A recent study by Ariana (2013) tested the relationship between employee engagement, organizational citizenship behaviour (OCB), and counterproductive work behaviour (CWB). The result indicated a significant positive relation between employee engagement and OCB and a significant negative relation between employee engagement and CWB and between OCB and CWB.

Literature also makes a distinction between the concept of work engagement and employee engagement. The next section will draw a comparison between employee engagement and work engagement.

2.1.2. Employee engagement versus work engagement

Authors such as Harter et al. (2002) and Truss et al. (2006), speak of work engagement and employee engagement synonymously, seeing no distinction between these two constructs. Kahn (1990, p. 694) and Harter et al. (2002, p. 269) refer to engagement as the involvement or harnessing of the employee in work roles. Truss et al. (2006) refers to engagement as "…a passion for work" – "…a psychological state" which is seen to encompass the three (physical, cognitive and emotional) dimensions of engagement discussed by Kahn (1990).

Schaufeli and Bakker (2010) argue that there is a distinction between the concepts of work engagement and employee engagement. They contend that it is the psychological element or attachment to the organisation, which demarcates the boundary between employee engagement and work engagement. While employee engagement refers to the alignment that exists between the individual's interests and values and those of the organisation, work engagement refers only to the relationship between the work itself and the employee.

The distinction in thought toward employee engagement, being more than the mere connection between the work and the employee, is further reflected in Robinson et al's (2004, p. 9) definition of employee engagement as "a positive attitude held by the employee towards the organisation and its values. An engaged employee is aware of business context and works with colleagues to improve performance within the job for the benefit of the organisation. The organisation must work to nurture, maintain and grow the engagement which requires a two-way relationship between employer and employee".

From the above it can be argued that:
- firstly, the existence of different definitions makes the state of knowledge of employee engagement difficult to determine as each study examines employee engagement under a different protocol;
- secondly, it seems that a few definitions agree that employee engagement is a relationship that is created and nurtured by both the organisation and the employee;
- thirdly, this relationship is felt both cognitively and emotionally by the employee. This cognitive and emotional attachment to the organisation can be influenced by the organisation to enhance the achievement of the values of the organisation; and
- lastly, but most importantly, employee engagement is a multi-dimensional construct.

2.2. Employee engagement – a multi-dimensional construct

The thoughts and definitions detailed above demonstrate that employee engagement is a multi-dimensional construct that goes beyond commitment or the work role (Crozier, 2010; Devi, 2009; Kahn, 1990; Zigarmi, Nouman, Houson, Whitt, & Diehl, 2009). Engagement enablers include the ability to utilise one's skills, alignment between individual and company objectives, and the encouragement to think and act beyond one's job scope (Macey et al., 2009). This

definition also allows for the components highlighted by work engagement and therefore it seems that employee engagement and work engagement are interchangeable terms.

Kahn (1990), argued that due to the many dimensions that make up the level of personal engagement an employee feels toward his/her work, an employee could be engaged in one dimension, but not in another. Kahn (1990) concluded that what is common to the construct of engagement is the tendency to emphasise the cognitive, emotional and physical involvement of the employee in his/her work, and his/her connection to the organisation in turn. This is illustrated conceptually in the figure below:
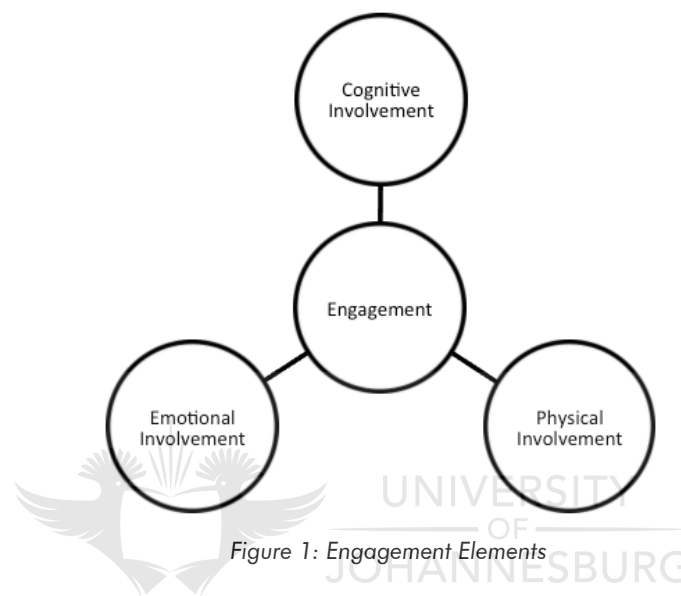
Figure 1: Engagement Elements

The Institute of Survey Research (Ferguson, 2005), after researching approximately 360,000 employees over a three year period, declared that engagement is made up of three dimensions:
- affective (how employees feel);
- behavioural (how employees act); and
- cognitive (do employees believe in and support the goals of the organisation).

The Chartered Institute of Personnel and Development (CIPD) also suggest that employee engagement has three dimensions:
- cognitive engagement (the extent of focus on work);
- emotional engagement (emotional involvement with one's work); and
- physical engagement (willingness to go the extra mile).

Table 1 highlights the different proposed models of the multi-dimensional constructs of employee engagement. The proposed model by the Institute of Survey Research will be used as a framework.

Table 1: Employee engagement – a multi-dimensional construct

Author	Cognitive construct	Affective construct	Behavioural construct
Joubert (2010)	Refers to cognitive engagement and increase in understanding		Cognitive engagement drives behavioural engagement (need to understand first.) Also expressed as performance feedback
Konrad (2006)	Cognitive: beliefs of people	Emotional: how people feel	Behavioural: discretionary effort
Lockwood (2007)		Speaking positively of the organisation and employees Desire to form part of the organisation	Exerting extra effort
Macey et al. (2009, p. 9)		Is expressed as people being focused, enthusiastic and intense	Behaviours are expressed as adaptable, persistent and proactive

Although the definition and meaning of engagement in the practitioner literature often overlaps with other constructs, in the academic literature it has been defined as a distinct and unique construct that consists of cognitive, emotional, and behavioural components that are associated with individual role performance (Saks, 2006). Furthermore, as detailed earlier in sub-section 2.1.1., engagement is distinguishable from several related constructs, most notably organisational commitment, organisational citizenship behaviour, and job involvement.

The findings from academic literature have also been validated by research studies in the field of work engagement (Schaufeli, Bakker, & Salanova, 2006; 2010) and have concluded that engagement is characterised by the following three aspects:

- Physical component or vigour (e.g., "At my work, I am bursting with energy");
- Emotional component or dedication (e.g., "I am enthusiastic about my job"); and
- Cognitive component or absorption (e.g., "I am immersed in my work").

Based on the perspectives of Kahn (1990), Schaufeli et al. (2006) and Schaufeli et al. (2010), it can be concluded that employee engagement comprises three dimensions, namely a physical component, a cognitive component and an emotional component. In summary of the different dimensions that have been proposed by the various authors mentioned afore, the following model can be offered as a representation of employee engagement. This will be utilised as the operational model of employee engagement for purposes of this study.
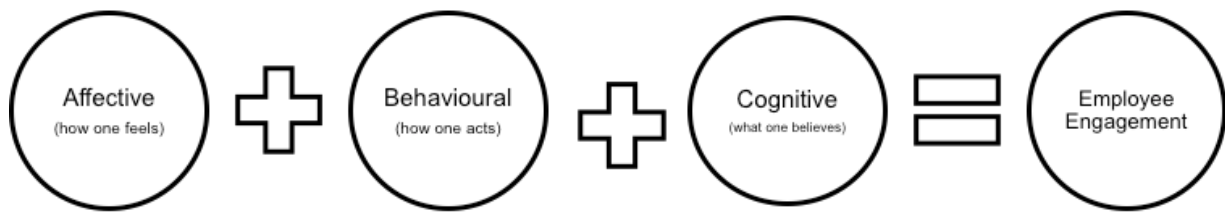
Figure 2. Operational model of employee engagement

Studies (both internationally and in South Africa) have shown that engagement can be measured in a valid and reliable way using the Utrecht Work Engagement Scale (UWES) (Bakker, 2008; Barkhuizen & Rothmann, 2006; Schaufeli et al., 2010). However a study by Rothman and Rothman (2010) expressed the need to develop a scale that is reliable but also measures the physical, emotional and cognitive components of employee engagement as the UWES measures psychological meaningfulness rather than the emotional component of engagement. Thus, whilst the cognitive component in work engagement refers to an employee's absorption in his/ her work, in employee engagement, the cognitive dimension refers to the understanding of alignment by the employee between his/her work role and the goals of the organisation.

2.3.   The consequences and enablers to employee engagement

The multidimensional construct of engagement has consequences for both the organisation and the individual (Maslach et al., 2001; Saks, 2006; Schaufeli, Salanova, Alez-Rom & Bakker, 2002). According to Gallup, who researched engagement at more than 125 organisations, increasing employee engagement correlates directly with a positive impact on key business metrics – organisaions that invest in engaging employees can stand to grow their earning 2.6 times faster than those who don't (Fleming, 2009). Organisations that rate high on engagement have fewer accidents, lower absenteeism, lower turnover and higher performance (Towers Watson, 2008).

According to Finney (2008, pp. 2-3), "engaged employees have common traits:
- they believe in the mission of the organisation;
- they love what they do and understand the link between their role and the organisational vision;
- they are positive and focused, creative, innovative; and
- they are willing to give their best".

To enable employee engagement, Macey et al. (2009, pp. 10-13) contend that organisations must abide by four fundamental principles:
1. *"Create the capacity for the employee to engage"*
   The organisation does this through creating a work environment wherein continuous learning is encouraged, information sharing is promoted and the work-life balance

is supported. Studies conducted by Bakker and Demerouti (2008) and Schaufeli and Salanova (2007) on work engagement have shown that resources, such as social support and learning opportunities, are positively correlated to engagement.

2. *"Motivate employees to engage"*

Organisations do this through providing interesting work that allows the employee to create and find the alignment between individual and organisational values. Motivation is extended and promoted by the organisation through respectful treatment of the employee. When an employee feels that his/her efforts are valued the tendency for the employee to continue to reciprocate through engaging behaviours is promoted (Macey et al., 2009). Schaufeli and Bakker (2010), using the job demands-resources (JD-R) model, emphasise the motivation potential behind the provision of job resources, which has been shown to have a positive correlation to work engagement.

This seems to be a point of departure in the literature as far as the correlation in results between the various motivators and work engagement, and various motivators and employee engagement. While the first two principles of creating the platform for employee engagement and work engagement are synonymous, the second two principles do not find similar correlations in the literature.

Research on work engagement does not shed light on the aspects of trust and fairness, nor on an organisation's strategic objectives in relation to engagement (Saks, 2006). This can be further substantiated by the distinction that Bakker and Leiter (2010) draw to work engagement and employee engagement. The former is related to work roles, whereas the latter pertains to the relationship between the employee, his/her work, and the organisation. Given that trust and strategy are conceived at an organisational level, it stands to reason then that it makes sense for the lack of support within the work engagement literature for the following two principles that Macey et al. (2009) propound:

3. *"Provide the freedom for employees to engage"*

Trust, and the cultivation thereof, in the organisation is a key component in ensuring that employees feel the freedom and safety to engage (Macey et al., 2009). Aspects, such as fairness, encouraging employees to take on responsibilities, and providing the ability for employees to make decisions, cultivate a climate of trust in organisations (Thomas, 2009).

4. *"Ensure that people are aware of the organisation's strategic priorities"*

Employees need to know and understand the strategic objectives of the organisation and what it aims to achieve through these objectives. This knowledge allows the employee to identify the alignment between the goals and values of the organisation, and personal

goals and values. The alignment allows for internalisation of goals, which aids the organisation in achieving the desired behaviours from the employee, so that behaviours translate into attaining the goals of the organisation (Macey et al., 2009). Macey et al. (2009) refer to this as strategic engagement, since it allows the organisation to target the desired behaviours based on strategic intent; for example, an organisation whose priorities are focused on service delivery must cultivate a climate wherein good service behaviours are encouraged and rewarded.

Research conducted by Joubert (2010) has indicated a number of management processes that will increase employee's level of engagement when they are involved and can participate in these processes. These are highlighted below.

Table 2: Processes that increase employee engagement

Management Process	Cognitive engagement level improves	Behavioural engagement level improves	Emotional engagement level improves
Analysis, interpretation and integration of information	x	x	x
Implementation		x	
Evaluate success		x	x
Effective communication		x	x
Being informed of the environment		x	

Table 2 reflects that it is clear that a number of factors could increase the level of employee engagement, especially communication. Cawe (2006) investigating the drivers of employee engagement in South Africa concluded that whilst some organisations may be aware of what drives engagement, they failed to implement the necessary practices which would allow them to realise the rewards of engagement. Further he assessed that organisations needed to approach engagement, like any other organisational strategy, holistically – beginning with a comprehensive encompassing employee engagement strategy which is realised through everyday human capital practices.

Rothman and Rothman (2010) also conducted a study with the objective to investigate the factors associated with employee engagement in South Africa from two models, namely the personal engagement model of Kahn (1990), and the work engagement model of Schaufeli and Bakker (2004). Regarding the personal engagement model of Kahn (1990), the results showed that psychological meaningfulness and psychological availability were positively associated with employee engagement. Psychological meaningfulness and psychological availability were positively associated with work role fit, co-worker and supervisor relations, facilitative norms and low self-consciousness. Psychological meaningfulness, which was the strongest predictor

of employee engagement, mediated the relationship between work role fit and employee engagement.

Regarding the work engagement model of Schaufeli and Bakker (2004), the results showed that job resources (including growth opportunities, organisational support, social support, and advancement) were positively associated with employee engagement (vigour, dedication, and absorption). Growth opportunities (such as learning opportunities, autonomy, and variety) had the strongest effect on employee engagement.

From the above it is clear that various aspects can influence employee engagement. For importance of this study the literature review has indicated that information sharing and effective communication can increase employee engagement which alludes to the fact that knowledge sharing could have an impact on employee engagement. This is supported by Hayase (2009) that also concluded that there is a positive relationship between factors of internal communication and factors of employee engagement. This will be unpacked in more detail in section 3 of this chapter.

2.4.   Synthesis

Employee engagement is a multi-dimensional construct made up of cognitive, behavioural/ physical and affective/emotional dimensions. Organisations have the ability to influence the level of engagement an employee feels at the cognitive and affective/emotional levels. Engagement is acted out behaviourally or physically by the employee. The results and consequences of engagement are felt or reflected on the bottom-line of organisational results. Studies have demonstrated that employee engagement has a positive correlation with the financial results that an organisation achieves.

Common themes in the literature have been found to include:
1.   Employee engagement consists of three dimensions, namely the affective, cognitive and behavioural component. These three components can be measured in a valid and reliable way.
2.   A range of factors can be identified from the literature as having an impact on engagement; which extend from the work-life balance to the number of hours worked, and the identification with the values of the organisation. Theorists and practitioners agree that what is important in driving engagement is two-way communication, effective leadership and the need for management to drive engagement. Further, engagement must be approached strategically through holistic planning and practice to enable the organisation to reap the consequences of an engaged workforce;
3.   There is an inherent bias in the literature toward favouring engagement with no indication as to whether there are any negative effects of engagement, or whether there is a point at which engagement peaks, and

4. There is no indication in the literature if an employer has the ability to turnaround disengagement to engagement, and if not, what are the alternatives left to the employer, such as letting the disengaged workforce go, is not suggested.

In the next section the concept of knowledge sharing will be explored.

3. KNOWLEDGE SHARING

In this section knowledge sharing will be defined as well as its relation to other related concepts like information sharing, learning and communication. This section will conclude with the identification of factors that will enable successful knowledge sharing processes.

3.1. Defining knowledge

Knowledge is fast becoming the basis on which organisations are leveraging their competitive advantage (Bal, Bal, & Demirhan, 2011; Mearns & Jacobs, 2009, Muthusamy & Palanisamy, 2004). Snyman and Kruger (2004) indicate that the most valuable asset for the 21st century organisation is its knowledge and knowledge workers. This view impacts on HR processes and practices, which assist the organisation in fostering and maintaining the required competencies for organisational performance.

While there is no absolute definition of what a knowledge economy is, the view that there is greater reliance on innovation, technology, ICT, and other modern methods of disseminating information faster, indicates that even though knowledge has always been important, the idea of knowledge being a commodity that can be used and traded is more relevant today than it was a century ago (Smith, 2000). Thus, it would be fair to deduce that most organisations have moved, or are moving, from a labour intensive to a knowledge intensive economy. This conclusion is also supported by Rangarajan (2006) in describing the new landscape of the globalised economy.

Some authors distinguish between knowledge and information, indicating that the pathway to knowledge is from data to information to knowledge (Alavi & Leidner, 2001; Beckman, 1997; Myers, 1996; Turban, 1992). Myers' (1996, p. 2) definition of organisational knowledge as "processed information embedded in routines and processes which enable action...", or Turban's (1992, p. 804) definition of organisational knowledge as "...information that has been checked through arrangement and analysis to make it intelligible and applicable for problem solution or decision-making", indicate that a relationship exists between information and knowledge and that knowledge is made up of information clusters. Duffy (2000, p. 29) illustrates the relationship between data, information and knowledge as follows:
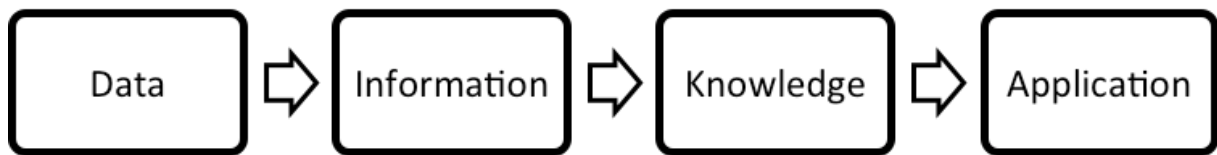
Figure 3. Relationship between data, information and knowledge

Al-Alawi, Al-Marzooqi and Mohammed (2007, p. 24) define data as raw facts, measurements and statistics, and explain that knowledge should for this reason not be confused with data. When meaning and understanding are derived and organised from data this becomes information (Bender & Fish, 2000). When the individual goes on to use this information, she/he transforms it so as to create meaning that incorporates this information with personal experience and values (Wiig, 1993). Knowledge is therefore more complex than data or information (Al-Alawi et al., 2007). Knowledge remains a hidden asset until a knowledge worker disseminates it (Bagshaw, 2000; Katz, 1998).

According to Kinnear and Sutherland (2000), it is only when the knowledge is released to create new organisational knowledge or innovation that it becomes an asset for the organisation. This assertion can be illustrated by referring to the differences that authors attach to the types of knowledge that exist. Various scholars in the field of intellectual capital advise that individuals have tacit and explicit knowledge, while the former resides in people and is difficult to extract, the latter is available, identifiable and evidential (Li, Brake, Champion, Fuller, Gabel, & Hatcher-Busch, 2009; Song & Chermack, 2008). This would support the argument that knowledge, which is applied is evidential, and that this provides a competitive advantage to the organisation, but then what of tacit knowledge? Intellectual capital theorists also argue that each day an organisation's most valuable asset is taken off premises when an employee leaves work (Bontis & Fitz-enz, 2002).

Since intellectual capital would include that knowledge which is not evidential, these theorists argue that this knowledge is of equal, if not greater, value to the organisation as the loss thereof could mean the loss of valuable input that cannot be recovered. This is where the distinction between explicit or tacit knowledge can be drawn. While explicit knowledge is formal, systematic and easily transferable through methods, such as manuals (Brown & Duguid, 1991; Nonaka, 1991), tacit knowledge resides in individual competence (Roos & von Krogh, 1996). Due to its complexity, tacit knowledge, which is rooted in individual meaning and experience, is regarded as the source of an organisation's competitive advantage (Kakabadse et al., 2001).

Knowledge management (or the management of both explicit and tacit knowledge) has become an imperative in organisations, as they strive to attain competitive advantage through the use of intellectual capital. The need for organisations to manage knowledge is based on the link

between knowledge and the firm's source of competitive advantage (Jackson, Hitt, & DeNisi, 2003). Even though knowledge management is widely spoken of, and written about, its definition is not readily agreed upon (Jennex, Smolnik & Croasdell, 2009).

Burkowitz and Williams (1999, p. 2) define knowledge management as "the process by which the organisation generates wealth from its intellectual or knowledge based assets" while Wiig (1993), who is considered the father of knowledge management, defines it as "… the systematic, explicit, and deliberate building, renewal, and application of knowledge to maximize an enterprise's knowledge related effectiveness and returns from its knowledge assets" (Wiig, 1993, p. 20). What these definitions have in common is the emphasis on leveraging intellectual capital for the organisation's benefit. This is in line with the aim of this study which seeks to understand the impact of leveraging such intellectual capital on the level of employee engagement and hypothesises that leveraging such capital will benefit the organisation.

Grant (1996) suggests that it is important to consider the approach being used when attempting to manage tacit knowledge. Certain aspects to consider include:
1. training mechanisms and communication processes, which should match the characteristics of the knowledge that is being transferred,
2. the social context must be appropriate to the knowledge that is being transferred. Knowledge transfer is easier within social contexts where common interest and common knowledge bases exist, and
3. integrating knowledge transfer in the day to day operations and processes of the organisation can yield more successful results.

3.2. Information sharing versus knowledge sharing

The processes that are necessary for ensuring that knowledge is managed within an organisation highlight the role of the individual in knowledge management (Abou-Zeid, 2007). This further allows for a distinction between information and knowledge to be explained (Hung & Chuang, n.d.). While information resides in the public domain, knowledge is more personal and individualised (Argote, McEvily & Reagans, 2003). Knowledge is individual or personal as different people will incorporate and translate information into knowledge in different ways (Abou-Zeid, 2007).

It stands to reason that this could serve as a distinction between information sharing and knowledge sharing. While information, as explained, is data translated, and can be found explicitly disseminated in a process manual or procedure document, knowledge sharing would point more toward sharing individual experiences of information application. This speaks to the tacit knowledge which resides in a person being shared with another individual who again is given information. The individual must use this information to translate it into new knowledge. Knowledge sharing thus seems to be the retranslation or reincorporation of information.

Table 3 summarises the difference between information sharing and knowledge sharing as highlighted in the literature.

Table 3: Information vs. knowledge sharing

Information Sharing	Knowledge Sharing
Arises from data	Arises from information
Resides in the public domain	Is personal - Resides in people's heads
Explicit	Tacit
Can be translated into knowledge	Incorporated into existing mental models and then translated
Easily shared	Sharing based on sender, receiver and content

It can be argued, that there are clear distinctions between information sharing and knowledge sharing. Further, knowledge sharing is more complex as it does not reside in a public domain. The construct of knowledge sharing will be explored in the section below.

3.3.   The dimensions of knowledge sharing

In the previous section the difference between knowledge and information sharing was explored. This section will look at the dimensions or building blocks of knowledge sharing.

Knowledge sharing refers to "…the provision of task information and know-how to help others and to collaborate with others to solve problems, develop new ideas, or implement policies or procedures" (Wang & Noe, 2010, p. 117). For knowledge management or knowledge sharing to contribute to competitive advantage for the organisation, it is important to ensure that individuals are engaged in the processes of knowledge management and the sharing of knowledge (Song & Chermack, 2008).

Knowledge sharing is considered to be a process of socialisation, rather than the movement of information between parties (Kakabadse et al., 2001; Song & Chermack, 2008). According to Chua (2003), an individual shares knowledge because it is a social expectation. It is also expected that such behaviour, or sharing, will be reciprocated and that mutual benefit will be attained. In the absence of such reciprocation, knowledge sharing and the transfer thereof are impeded.

Organisational ethos and policies can affect an employee's ability and willingness to share information (Kwok & Gao, 2004). Even though most organisations want to reap competitive advantage through their knowledge base, not all organisations are equipped to do this (Lin, 2008). The "ability of an organisation to learn, develop memory and share knowledge is dependent on its' culture" (Turban, Aronson & Liang, 2005).

Not all organisational cultures support the formation of a community of practice and not all organisational cultures support the promotion of knowledge sharing (Lin, 2008). A learning organisational culture is, in turn, dependent on factors that include interpersonal trust. A high level of interpersonal trust has been found to promote knowledge sharing, and thereby to cultivate a culture of learning in an organisation (Selen, 2000; Song, Kim & Kolb, 2009). In turn, a learning organisation is able to stimulate knowledge sharing and thereby contribute to the level of employee engagement (Knox-Davies, 2010).

Social capital theory is used to explain knowledge sharing behaviour in the organisation (Hung & Chuang, n.d). Nahapiet and Ghoshal (1998) indicate that the key factors that create the context for knowledge sharing to occur, are norms, identification and trust (Hung & Chuang, n.d.). Social capital theory asserts that individuals engage in social relations, because of the returns that the investment promises (Lin, 1999). Through building social networks individuals facilitate the flow of information, provide access to resources and rewards, create a platform for influence, and possibly reinforce an individual's identity (Lin, 1999).

Social capital is defined as "resources embedded in a social structure which are accessed and/ or mobilised in purposive actions" (Lin, 1999, p. 8). The role of social capital in advancing knowledge sharing is based on three interrelated dimensions; structural, relational and cognitive (Nahapiet & Ghoshal, 1998).

The structural dimension refers to the network of relations, whereas the relational highlights the personal relationships that exist within a network (Granovetter, 1973; Nahapiet & Ghoshal, 1998). Aspects, such as trust, friendship, trustworthiness, identification, identity, obligations, expectations and respect, influence the level of relational ties (Coleman,1990; Granovetter, 1973; Hakansson & Snehota, 1995). Finally, the cognitive dimension refers the shared systems of meaning and representations that individuals have (Nahapiet & Ghoshal, 1998). This dimension can be most closely aligned to understanding the occurrence of knowledge sharing, which points to the codes and language that people share when sharing knowledge (Nahapiet & Ghoshal, 1998).

3.3.1.   Structural Dimension

Granovetter (1973) argues that while forming social ties is important to advance knowledge sharing, the complexity of network ties influences the ability of individuals to share knowledge. Hansen (1999) found that where individuals may be able to source information, the strength of relationships will influence the level of sharing and the ability to share. When information is ambiguous, the level of previous knowledge of the parties sharing the knowledge will greatly influence whether such transfer is able to occur.

Nahapiet and Ghoshal (1998) argue that social capital influences the development of intellectual capital, or new knowledge, and that organisations present the right settings for the development of social capital. Organisations "build and retain their advantage through the dynamic and complex interrelationships between social and intellectual capital" (Nahapiet & Ghoshal, 1998, p. 260). The relationship between intellectual and social capital can be seen as interdependent, as both must exist in order to advance the other. Thus, while the existence of social capital promotes the easier transfer and sharing of knowledge, the roots of intellectual capital lie in the complex relations that exist within the organisation (Coleman, 1988; Nahapiet & Ghoshal, 1998). The organisation benefits from the co-existence and advancement of both these multi-dimensional constructs.

Knowledge sharing can also be seen as an organisational advantage rooted in the resource based view of the firm, as postulated by Barney (1995). Organisational resources, according to Barney (1995), which are rare and inimitable, are considered particularly valuable. Drawing on work done by other practitioners, Nahapiet and Ghoshal (1998), describe resources, which are inimitable as tacit, have causal ambiguity and are interconnected. These features are true of both intellectual capital and the interrelationships in social capital.

Since knowledge resides in the individual and sharing is based on the relationships that individuals develop, social networks and the factors that contribute to forming such network relationships is an important consideration in knowledge sharing. Social networks, also referred to in the literature as communities of practice, have been proposed to encourage learning and the transfer of essential information (Jackson, Hitt & Denisi, 2003; Kakabadse, Kouzmin & Kakabadse, 2001; Wang & Noe, 2010). "Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly", according to Wenger (n.d.). Communities of practice are able to develop capabilities of the group through building and exchanging knowledge (Song & Chermack, 2008). A study undertaken by Chen, Zhang and Vogel (2011) to investigate the relationship between knowledge sharing and conflict found that when relationship conflict exists, a sense of safety, meaningfulness and availability will deteriorate which in turn causes the ability to share knowledge to deteriorate.

3.3.2. Relational Dimension

Creating a knowledge management ethos is dependent on managers in the organisation recognising the value that can be derived from encouraging the sharing of ideas (Bailey & Clarke, 2001). By promoting an ethos of trust (Finestone & Snyman, 2005; McDermott & O'Dell, 2001), understanding (Finestone & Snyman, 2005), support (Finestone & Snyman, 2005), care (von Krogh, 1998), openness (Finestone & Snyman, 2005), emotional commitment, and quality of the relationship (Weiss, 1999), managers are able to encourage the formation of networks, or communities of practice, and thus the foundation of knowledge sharing.

Organisational cultures can either promote the formation of networks that stimulate knowledge sharing or that hamper it (Lin, 2008). The literature indicates that there are three types of organisational culture (Wallach, 1983); bureaucratic cultures operate on the basis of power and work is standardised with specified avenues of authority dedicated to types of work, innovative cultures promote initiative and challenging work environments, while supportive cultures are characterised by environments wherein participation, teamwork and interpersonal relationships are encouraged (Lin, 2008). Two of these cultures promote knowledge sharing; innovative cultures will promote ideas sharing and initiatives for setting up of technology-based network channels to share and communicate ideas (Wang & Noe, 2010), whereas supportive cultures create climates of trust, which is a necessary condition for knowledge sharing (Wang & Noe, 2010).

A study, undertaken by IBM, investigating knowledge sharing and personal relationships found that there are two types of trust present that become relevant in the knowledge sharing process; benevolent based trust and competence based trust (Abrams, Cross, Lesser & Levin, 2003). Benevolence based trust refers to a person not expecting to be hurt intentionally by another, and competence based trust consists of a person's expertise in a subject area (Abrams et al., 2003). The greater the congruency between benevolence and competence, the greater the chance of successful knowledge sharing and transfer (Levin, Lesser, Cross, & Abrams, 2002). The study found that as long as both types of trust are present in a relationship, the potential for knowledge sharing is created. It does not matter how strong the relationship or tie between the parties are; in fact, this study found that where both types of trust are present in the event of either a weak or strong tie, that is, whether parties are familiar with each other or not, the ability of either to transfer knowledge to the other is present (Levin et al., 2002).

It can be argued that managers in organisations must seek to create both competence based and benevolent based trust in organisations by encouraging the nurturing of personal relationships through teamwork and participation. They should promote a culture where questions are sanctioned, and a vision for creating an organisation that endorses the value of each person's knowledge (Levin et al., 2002). Bringing employees together to aid in building a shared vision, shared language and shared goals creates the foundation for trust, which has been identified as the most important platform for the cementing of organisational relationships, which advances the ability of knowledge sharing and transfer to take place, in turn (Levin et al., 2002).

Organisational commitment refers to the sense of identification that the employee feels toward the organisation as compared to others (Lin, 2008). Employees who are committed to their organisation want to contribute to achieving the goals of the organisation; they are willing to expend the effort it takes to achieve such goals, and are willing to stay with the organisation until such goals are achieved (Henderson, 1990; Lin, 2008).

Allen and Meyer (1990) distinguish between three types of commitment that an employee feels; affective commitment or the emotional attachment an employee feels toward the organisation, normative commitment or a feeling of obligation an employee has, and continuance commitment or the costs that may be incurred should s/he leave the organisation. The greater the level of affective commitment, the greater the likelihood that the employee will be willing to share knowledge (Allen & Meyer, 1990). Jarvenpaa and Staples (2001, p. 156) concur and suggest that "…greater commitment may engender beliefs that the organisation has rights to the information and knowledge one has created or acquired".

Factors, such as trust, organisational culture and organisational communication, uniformly contribute and affect the ability of an organisation to promote knowledge sharing amongst its employees (de Vries, van den Hooff & de Ridder, 2006). It is, thus, imperative for organisations to create a climate within which support for knowledge sharing is evident. When employees are able to engender and trust a belief that knowledge sharing is valued, the likelihood of them being committed to such behaviour will be entrenched and knowledge sharing will permeate as a result.

3.3.3. Cognitive Dimension

The cognitive dimension, according to Nahapiet and Ghoshal (1998), includes the resources that provide for shared meanings, identification and language. By gaining access to these resources, employees are able to tap into each other's tacit knowledge base (Abou-Zeid, 2007). Bruner (1990) proposed that there are two different modes of cognition; the information or paradigmatic mode, and the narrative mode (Nahapiet & Ghoshal, 1998). Knowledge is created in the paradigmatic mode through engaging in rational analysis and argument, whereas story telling would be used for knowledge creation in the narrative mode (Nahapiet & Ghoshal, 1998). According to Arthur (1994) and Holland, Holyoak, Nisbett, and Thagard (1986), inductive logic can be used to explain how new knowledge is created from related existing knowledge through metaphors and analogies. Learning is created by individuals through reflecting on practice and cognition. Through such reflection, existing mental models are challenged or incorporated to create new knowledge (Muthusamy & Palanisamy, 2004).

Given the various dimensions indicated above, an operational model for knowledge sharing can be represented as follows:
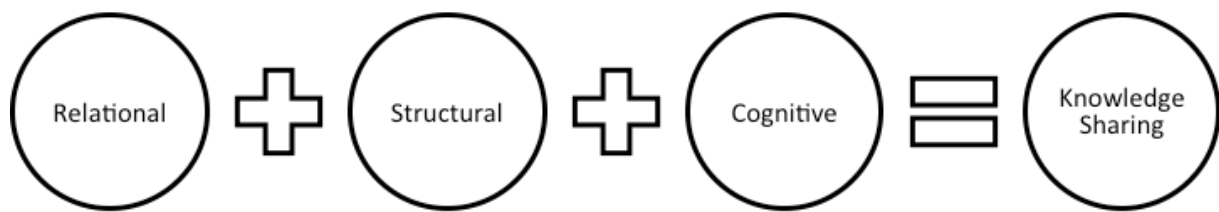
Figure 4. Operational model for knowledge sharing

To enable knowledge sharing to take place it is also necessary for the organisational climate within which it occurs to support such practices. Knowledge sharing is a learning process. To understand how this process occurs, the concept of organisational learning will be considered next.

3.4. Organisational learning

Argyris and Schön (1978) argued that for organisational learning to take place an employee should go through three stages of learning - adaptive, generative and transformative. An individual's interaction between cognition and environment allows for tacit knowledge to be accessed (Song & Chermack, 2008). When organisations provide the right environment for organisational learning to occur, individuals are able to add to and grow their existing knowledge, and in the process to adapt their existing knowledge (Song & Chermack, 2008).

When organisations provide the circumstances for employees to engage with each other and learn from each other, employees are able to learn new skills and generate new knowledge that is created through social interaction (Song & Chermack, 2008). Argyris and Schön (1978) referred to this as the generative learning mode of the learning process. When employees engage in this socialised process of learning, integrated learning contributes to better explicit knowledge for the organisation, and thereby lays the foundation for organisational change and innovation (Song & Chermack, 2008). In the transformative process, employees reframe new knowledge based on critical reflection and validation (Song & Chermack, 2008).

This means that when knowledge sharing takes place, it is done as the first step to knowledge transfer, which allows for the preservation of knowledge within the organisation (Cummings, 2003).

3.5. Knowledge sharing and communication

The literature review discussed above highlighted the importance of two-way communication in employee engagement (Section 2). The purpose of this section is to establish the relationship between knowledge sharing and communication, as communication is required to share knowledge. Communication refers to "human interactions through oral conversations and the use of body language while communicating. Interaction among the employees is facilitated by

the existence of social networking in the organisation" (Al-Alawi, Al-Marzooqi & Mohammed, 2007).

Communication contributes to knowledge sharing as it is related to trust in various inter-organisational relationships (Cheng, Yeh & Tu, 2008). Similarly, Al-Alawi et al. (2007) found that communication among staff is positively related to knowledge sharing in organisations.

The next section will examine the factors that are necessary for knowledge sharing to be successful. This is of importance for this study as it will be utilised as the theoretical framework to design the knowledge sharing intervention.

3.6.   Factors that enable successful knowledge sharing processes

When knowledge is shared a variety of contexts need to be considered to enable the knowledge sharing to be successful (Cummings, 2003; Mearns & Jacobs, 2009). Knowledge sharing occurs, firstly, within an environmental context or the environment within which the organisation operates. Secondly, knowledge is shared between parties, which leads to the two contexts of each; source and the recipient, who are both operating from and within different frames. To enable the knowledge sharing to take place a relationship between the parties becomes necessary – this relates to the relational context within which knowledge sharing takes place. Lastly, the knowledge itself occurs within a context. The knowledge is made up of the context within which it is embedded, as well as the tools, structures, relationships and routines it embodies within the organisation (Cummings, 2003).

When knowledge is shared, the source will share this entire package as this is the frame within which s/he embodies the knowledge. The recipient, then, absorbs this knowledge, and proceeds to internalise it through reflection on his/her own existing knowledge package (Cummings, 2003).

Results from a survey of 372 employees from a large multinational showed that self-efficacy, openness to experience, perceived support from colleagues and supervisors and, to a lesser extent, organisational commitment, job autonomy, perceptions about the availability and quality of knowledge management systems, and perceptions of rewards associated with sharing knowledge, significantly predicted self-reports of participation in knowledge exchange (Cabrera, Collins, & Salgado, 2006). Some of these components (support from supervisors, job autonomy) has been highlighted in section 2 of importance to the level of employee engagement within organisations.

The rest of this section will now highlight other key factors found in literature that are also required to enable knowledge sharing:
- Because employees have a choice to share (or not to share) knowledge, a willingness to

share must be present (Kakabadse et al., 2001). Research indicates that when employees are faced with job insecurity they are less likely to show willingness to share knowledge, for that knowledge serves as power that can be leveraged against the organisation (Cummings, 2003).

- The recipient of the knowledge must have some background knowledge to allow him/ her to reflect, or understand the value of the new knowledge (Cummings, 2003). Hamel (1991) found that organisational learning is enhanced when the knowledge gap between the source and the recipient is small, and when the recipient is able to understand the steps required to fill the gap that currently exists.

- A culture of learning in the organisation should be promoted (Cummings, 2003; Kakabadse et al.; 2001). Organisations that promote learning through incentives, recognition or entrenching a culture of innovation and learning have a greater rate of success for knowledge sharing than those who do not.

- The level of trust between the source and the recipient. Research has found that when knowledge is shared between parties within the organisation, knowledge transfer is more effective than if the same information is shared by a source outside of the organisation, since internal sources are trusted more by recipients than are external counter-parts (Uzzi, 1996; Zaheer, McEvily & Perrone, 1998). This could be due to the level of social ties that sources and recipients have with each other, which impacts on the level of trust in turn. Those employees who find themselves part of the same network display a greater willingness to share information, than those outside of a network (Granovetter, 1985; Tichy, Tushman & Frombrum, 1979).

From the above it is clear that for successful knowledge sharing to take the context needs to be considered that will allow for a willingness to share. This is influenced by elements like trust and culture.

3.7. Synthesis

Knowledge is distinct from information in that it is embodied within a complex context, which arises from the structures, tools, routines and the source of knowledge. Successful knowledge sharing occurs as a result of a number of contexts and factors culminating in a complex process, wherein each party embodies a particular frame of reference. Knowledge is shared as a result of the willingness felt and displayed by each party. To enable its sharing, a relationship must exist. Such a relationship is based on trust between the parties, as well as the credibility of the source. To enable the transfer and internalisation of the knowledge, the recipient reflects on existing knowledge.

In this section the researcher also explored the requirements of developing a knowledge sharing intervention that would enable internalisation of knowledge, which would impact on how the recipient feels and acts, and what s/he believes.

4. LITERATURE SYNTHESIS

Given the literature review it can be concluded that various studies seem to agree that employee engagement consists of three dimensions (affective, cognitive and behavioural) that can be measured in a valid and reliable way. A range of factors can have an impact on engagement; namely two-way communication, effective leadership and the need for management to drive engagement. The importance of two-way communication alludes to the fact that knowledge sharing should have an impact on improving employee engagement.

The literature review also indicated the importance of communication on employee engagement and also concluded that communication facilitates knowledge sharing. However, a recent study by Welsch (2011) also highlighted that despite various authors mentioning the importance of communication on employee engagement there still exist a gap in explaining the role of internal corporate communication in enhancing employee engagement. A study by Hayase (2009) has indicated that that there is a positive relationship between factors of internal communication and factors of employee engagement. The study also found that internal communication is linked to commitment, discretionary effort, and meaningful work; all factors of engagement. In addition, results also indicated that communication channel satisfaction and channel combinations were linked to employee engagement.

A study by Chen, Xizhang and Vogel (2011) found that relationship conflict deteriorated engagement, which, in turn, affected knowledge sharing. From the academic literature perspective there is a clear relationship between engagement and knowledge sharing. What is unknown is whether a knowledge sharing intervention will actually increase or enhance the level of employee engagement.

The literature review also indicated that in order for effective knowledge transfer to occur elements like trust, organisational culture and willingness to share plays an important role.

4.1. Operational research framework

Given the literature review it is possible to conceptualise diagrammatically a framework wherein the links between the elements of employee engagement and knowledge sharing are shown.
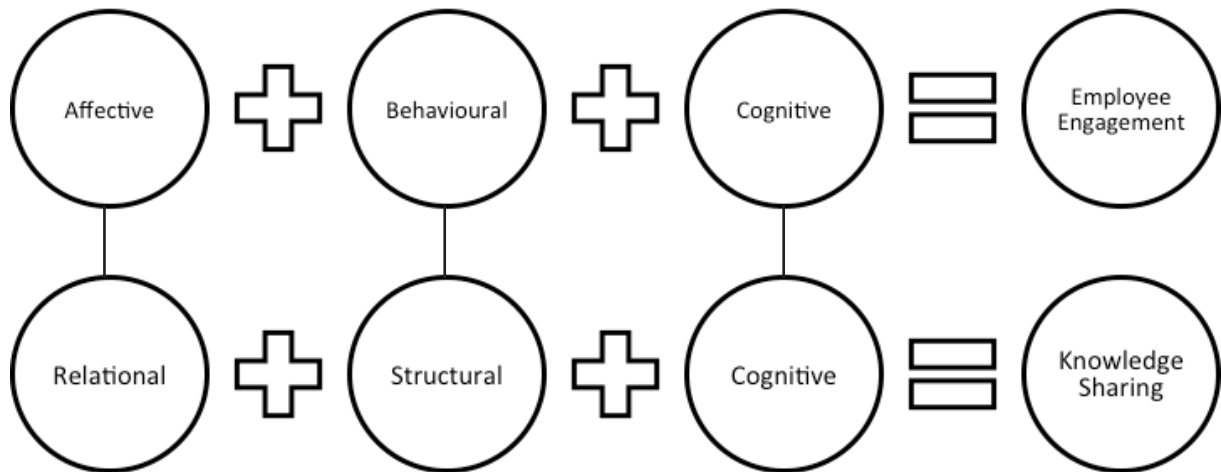
Figure 5. The link between dimensions of knowledge sharing and employee engagement

Here the affective element of employee engagement (the way one feels) can be considered as being similar to the relational element of knowledge sharing (the factors or feelings that influence the relationships in networks), the behavioural component of the former (the way one acts) is similar to the structural element of the latter (the way the networks emerge in the organisation), while a common cognitive element relates to shared meaning between the organisation and the employee in employee engagement, and shared meanings between individuals in knowledge sharing.

4.2. Research hypothesis

The general hypothesis is formulated as follows:

• There is a difference between the level of employee engagement of the experimental group after attending a knowledge sharing intervention in comparison to the control group who has not attended the knowledge sharing intervention.

The specific hypotheses are formulated as follows:

• H1: There is a difference between the level of employee engagement of the experimental group after attending a knowledge sharing intervention in comparison to the control group who has not attended the knowledge sharing intervention in terms of the affective dimension.

• H2: There is a difference between the level of employee engagement of the experimental group after attending a knowledge sharing intervention in comparison to the control group who has not attended the knowledge sharing intervention in terms of the behavioural dimension.

• H3: There is a difference between the level of employee engagement of the experimental group after attending a knowledge sharing intervention in comparison to the control group who has not attended the knowledge sharing intervention in terms of the cognitive dimension.

5. CONCLUSION

The aim of the literature review was to understand the constructs of employee engagement and knowledge sharing and their consequences. This led to the suggestion that each construct was multi-dimensional and that there are common consequences evident in both employee engagement and knowledge sharing. The literature further revealed that there are common motivators of both employee engagement and knowledge sharing. These include variables, such as trust, organisational culture, social interaction, organisational communication, organisational support, level of commitment, and management support.

The literature review also indicated the importance of communication on employee engagement and also concluded that communication facilitates knowledge sharing. Research has indicated that that there is a positive relationship between factors of internal communication and factors of employee engagement. Internal communication is linked to commitment, discretionary effort, and meaningful work; all factors of engagement.

The review also found that relationship conflict deteriorated engagement, which, in turn, affected knowledge sharing. The next chapter will now outline the research design.

CHAPTER THREE: RESEARCH DESIGN

1. INTRODUCTION

In this chapter the research design and associated methodology will be discussed to ensure the research questions are answered.

According to Cresswell (1994, pp. 1-2), the main aim of the quantitative research paradigm is to "…objectively measure the world, to test hypotheses and to predict and control human behaviour", as compared to qualitative which is conducted when a researcher wishes to understand experiences or meanings or ask 'why' questions (Wisker, 2001). De Vos et al. (2005) concurs by stating that the purpose of a quantitative approach is to test cause-effect hypotheses. Thus, a quantitative research approach was adopted for this study as quantitative research tools were deemed to be most suitable to achieve the necessary data to test cause-effect hypotheses.

The research design will be further unpacked by utilising the following structure:
- Research approach; and
- Research method.

2. RESEARCH APPROACH

As the previous chapter reflected this study aims in determining whether a knowledge sharing intervention will increase the level of employee engagement. This is according to Mouton (2001, p160) outcome evaluation research as it aims to answer the question whether an intervention has been successful or effective. To test the hypothesis of this study, an exploratory quasi-experimental research design was implemented. A quasi-experimental design was chosen as it was necessary to assigns members to the experimental group and control group by a method other than random assignment.

The assumptions underlying this approach are:
1. The ontological assumption is positivist (Marsh & Furlong, 2002). There is a real world that can be understood using empirical methodologies.
2. The epistemological assumption is rooted within a positivist framework, which holds that hypotheses can be tested and that an explanation for phenomena can be attained through objective, independent study.
3. The methodological assumptions are that the research is a deductive process, based on cause and effect, on static design (categories isolated before study), it is context-free,

generalisations lead to prediction and understanding, and that the research is accurate and reliable through validation and applicability.

2.1. Research process

The research process consisted of a number of phases, and conceptually can be viewed as follows:
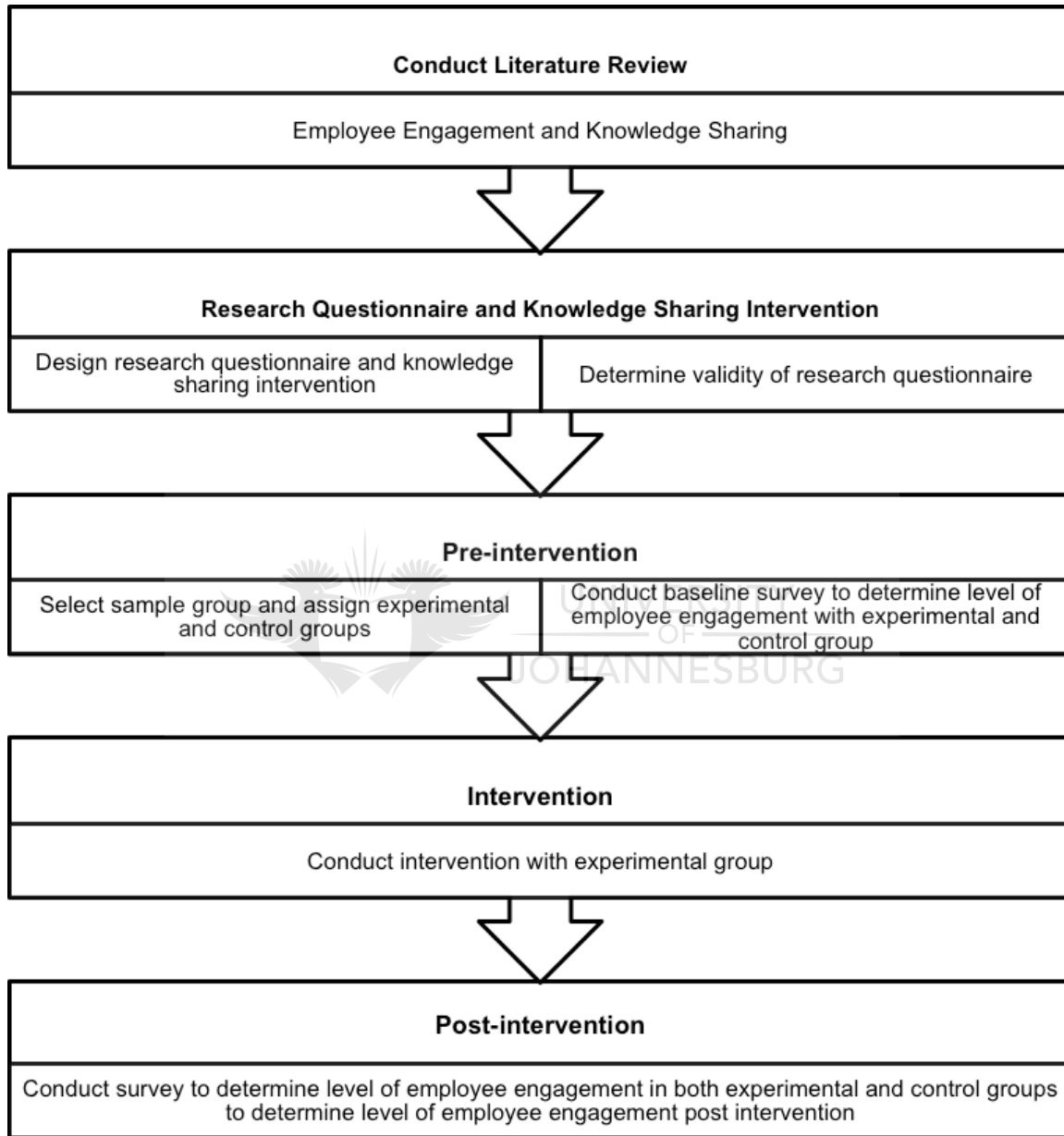
Figure 6. Research process

Having now outlined the steps in the research process the section below will explain the rationale for using a pre- and post-test control group design.

2.2. Rationale for using the pre- and post-test control group design

As indicated this research is experimental in nature as the study seeks to determine whether a program or intervention had the intended effect on program participants. According to Leedy and Ormrod (2010) there are three key components to an experimental study design: (1) pre-post test design, (2) a treatment (or experimental) group and a control group, and (3) random assignment of study participants.

As previously mentioned it was necessary to assign members to the experimental group and control group by a method other than random assignment (participation in the study was voluntary) a quasi-experimental design was chosen (Leedy & Ormrod, 2010). According to the National Centre for Technology Innovation a general rule of thumb is that each group ought to have at least 30 participants. Huysamen (1993, p. 90) also indicates that for purposes of this design it is important to determine whether the experimental and control groups differs prior to the onset of the research intervention.

3. RESEARCH METHODOLOGY

The section below will outline the adopted research methodology.

3.1. Participants and sampling

The study was undertaken within an organisational setting comprised predominantly of administrative employees that operate at various levels within the organisation. The organisation is a government based service level organisation based in Gauteng. A stratified random sampling technique was utilised to arrive at a representative sample of the population (de Vos et al., 2005).

At the time of the research study the organisation consisted of 189 employees. The split between the different levels of employees were administrative (50%), middle management (30%) and senior management (20%). A representative sample of 100 employees across the salary bands provided a cross-sectional picture of the organisation.

3.1.1. The Respondents

The surveys were manually distributed by the researcher to the sample population. Of the 100 surveys distributed within the first phase of the study, sixty-one (61) respondents returned the completed survey within the allocated period. To ensure confidentiality respondents were asked to return the survey in a sealed envelope.

3.1.2. Experimental and Control Groups

The sixty-one (61) employees who completed the questionnaire were then assigned to the experimental and control groups based on their willingness to attend the knowledge sharing sessions. Thirty-seven (37) employees formed part of the experimental group and twenty-four (24) employees formed part of the control group.

3.1.3. Respondent description

Table 4 : Research respondents

Dimension Frequency		Experimental Group		Control Group	
		Percent	Frequency	Percent	
Age (in years)					
	19-35	18	48.7	7	30.4
	36-45	12	32.4	8	34.8
	> 45	7	18.9	8	34.8
	Total	37	100	23	100.0
Gender					
	Male	9	24.3	13	54.2
	Female	28	75.7	11	45.8
	Total	37	100	24	100.0
Race					
	Black	22	59.5	18	75.0
	White	4	10.8	4	16.7
	Coloured	4	10.8	1	4.2
	Indian or Asian	7	18.9	1	4.2
	Total	37	100	24	100.0
Salary level					
	1-8	23	62.2	14	58.3
	9-12	11	29.7	4	16.7
	13-16	3	8.1	6	25.0
	Total	37	100	24	100.0
Number of years employed within the organisation					
	1-3	21	56.8	12	50.0
	4-6	5	13.5	5	20.8
	7-10	2	29.7		
	>10	9		7	29.2
	Total	37	100	24	100.0

The control and experimental group differs in terms of:

- Age: The control group is more or less equally distributed through the different age categories as the experimental group falls predominantly in the age bracket of 19-45;
- Gender: The control group are more or less equally distributed in terms of gender, as the experimental group predominantly consists of females (75.7%);
- Race: Both the experimental and control groups consist predominantly of Black respondents;
- Salary: Both the experimental and control groups consist predominantly of participants in salary level of 1-8. The experimental group has a higher representation in terms of salary level 9-12 and the control group in salary level 13-16; and
- Years employed: Both the experimental and control groups consist predominantly of participants employed for less than 3 years. The experimental group has a higher representation in terms of years employed in the category 7-10 years (29.7%) and the control group in the category of 10 years and more (29.2%).

3.2. Knowledge sharing intervention

Knowledge sharing can occur via written correspondence or face-to-face communications through networking with other experts, or documenting, organising and capturing knowledge for others (Cummings, 2004; Pulakos et al., 2003). It was decided to deliver the knowledge sharing intervention through face-to-face communications and was designed based on the literature review in Chapter 2 (Section 3.5.) and is summarised below:

- A willingness to share must be present: employees were made aware of the purpose of the intervention and were allowed the opportunity to raise issues/ concerns;
- A culture of learning in the organisation should be promoted: in order to create stronger alignment between expectations of organisational performance and individual or employee understanding of expected level of contribution, employees were asked to share lessons learnt and examples from the past were sought to facilitate better alignment.
- The level of trust between the source and the recipient: Facilitators of the intervention were carefully selected based on the perception within the organisation in terms of their level of credibility and their ability to influence/ resolve issues mentioned during the actual intervention.

Fawcett, et al in De Vos et al. (2005, p. 394), advise that, in designing an intervention the researcher should consider a few questions such as, "is it effective?"; "is it replicable?"; and "is it adaptable to various contexts?". The intervention is set-out in terms of the following components - preparing participants, intervention content and facilitator of intervention in order to address the components summarised above.

3.2.1.   Preparation of participants

Participants were invited because employees have a choice to share knowledge, i.e. as stated above, a willingness to share must be present. Participants also received ample briefing of the purpose of the knowledge sharing intervention as well as an indication of the content to be covered.

3.2.2.   Intervention content

Table 5 summarises the content of the intervention. Annexure B and C provide a more detailed description.

Table 5: Intervention

Session	Content	Dimension to be addressed by session
1	Strategy: Explanation of organisation strategy, vision and mandate.	Relational and cognitive
2	Finance: Explanation of financial process as well as the PFMA	Structural
3	Policy: Overview of key policies, the purpose of the policies as well as the practical implication	Structural
4	Procurement: Explanation of procurement process	Structural
5	Human resources: Explanation of the people strategy and related processes	Relational and cognitive
6	Safety and security: Explanation of the importance of protection of information and demonstration of how easily information can be leaked into the wrong hands	Relational and cognitive
7	Communication: An explanation of tools/ venues to obtain information and knowledge.	Relational and cognitive

3.2.3.   Facilitator of intervention

The literature review indicated the importance of the level of trust between the source and the recipient. The review further indicated that when knowledge is shared between parties within the organisation, knowledge transfer is more effective than if the same information is shared by a source outside of the organisation. Lee, Kim and Kim (2006) found that top management support affected both the level and quality of knowledge sharing.

To address this finding senior management inside of the organisation were asked to facilitate these sessions. They were further asked to explain key concepts by actively engaging with the participants.

3.3. Measuring instrument

To objectively test the level of employee engagement and thereafter the reaction to an event, De Vos, et al. (2005) recommends that researchers use questionnaires as a research method. Thus, this research study utilised a structured questionnaire to assess the level of engagement prior to and after the implementation of an intervention. In this section the measurement instrument is described in terms of rationale for use, composition of the instrument, response scale and the reliability of the instrument.

3.3.1. Rationale for use

The Utrecht Work Engagement Scale (UWES) is currently used to determine work engagement where work engagement is conceptualised as the positive antithesis of burnout. However, for purposes of this research, it was decided against using this instrument because at least one item of the UWES measures psychological meaningfulness rather than the emotional component of engagement. The research questionnaire also needed to take into account the organisational requirements such alignment to vision and strategy. Thus, an instrument had to be developed for the research study.

3.3.2. Composition of the instrument

The questionnaire design and question choice was based on the employee engagement framework proposed in Chapter 2 and highlighted in Table 6 below.

As an employee of the organisation under scrutiny, the researcher was aware of the various features that define the organisational climate. According to Macey et al., (2009), a crucial first step in any employee engagement study is to understand the context within which an engagement intervention is envisaged. Failure to fully understand the context may result in the failure of the intervention itself. This thinking is also espoused in the knowledge sharing literature indicated earlier by Grant (1996) in that understanding of the social context allows easier transfer of knowledge. Importantly, the organisation is based within a political environment which impacts on the level of level of organisational politics which in turn impacts on the willingness of employees to share knowledge (Gupta, 2011).

Thus both the knowledge sharing and employee engagement variables when tested must take cognisance of social context. By extracting questions from the literature, a deductive approach to the questionnaire construction was employed. A deductive approach typically is one wherein the researcher focuses the research within a theoretical perspective, from which research questions arise and are investigated (Wisker, 2001).

The questionnaire was drawn up by adapting questions proposed by Macey et al. (2009). Questions that could be relevant to the organisational circumstances were picked from the recommended questions outlined by Macey et al. (2009) which target the various dimensions within employee engagement. The questions aimed to assess the level of engagement within each dimension, in order to draw a conclusion of the overall level of engagement within the organisation under study. The questionnaire consisted of twelve (12) statements structured along the three dimensions of employee engagement as set-out in chapter 2. For purposes of this research the 3 dimensions as well as the items are set-out below:

Table 6: Questionnaire construct

Dimension	Definition	Item	Item construct
Affective	How employees feel towards the organisation, themselves and their colleagues	1	Self confidence
		2	Impact on team
		3	Impact on organisation
		4	Responsibility
Behavioural	How employees behave in terms of performance	5	Performance improvement
		6	Meeting objectives
		7	Cost reduction
		8	Efficiency improvement
Cognitive	What employees believe about the organisation	9	Understand alignment
		10	Understand contribution
		11	Understand vision
		12	Understand performance impact

3.3.3. Response scale format

The questionnaire consisted of both a nominal measurement, which served to obtain demographic information from the respondent, as well as, an ordinal level of measurement for each of the questions addressing the level of engagement (De Vos et al., 2005). A Likert scale, which is a "measurement scale of agreement, often on five points, ranging from strongly agree to strongly disagree" (Frazer & Lawley, 2000), was utilised so that respondents could rate the extent to which they agreed or disagreed with a particular statement.

3.3.4. Validity of the instrument

To ensure that the research instrument would be appropriate to investigate and answer the research question, it was necessary to conduct a pilot study using the baseline engagement survey.

3.3.4.1. Content validity

The pilot study was undertaken by giving the questionnaire to subject matter experts to consider the content and the constructs of the questionnaire to ensure content validity. The pilot group consisted of ten (10) employees from the organisation across the different levels of the

organisational structure. Two (2) Academics familiar with the subject area as well as two (2) professionals with a research background were also chosen. Subject matter experts assisted in reframing particular questions and suggested that the scale be extended from a 3-point to a 5-point Likert scale. Overall, the experts believed that the instrument would assist in investigating the construct under study.

3.3.4.2. Construct validity

Construct validity was determined through exploratory factor analysis. In particular. principal axis factoring with Promax rotation was performed. Following on the findings of the reliability analysis the 12 items of the Employee Engagement Scale were subjected to principal components analysis (PCA). Prior to performing the PCA, the suitability of data for factor analysis was assessed. Inspection of the correlation matrix revealed the presence of coefficients of 0.3 and above. The Kaiser Meyer-Olkin value was 0.701, exceeding the recommended value of 0.6 (Pallant, 2010) and Bartlett's Test of Sphericity reached statistical significance (.000), supporting the factorability of the correlation matrix as indicated in the table below.

Table 7: Test of sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.701
Bartlett's Test of Sphericity	Approx. Chi-Square	314.49
	df	66
	Sig.	0

Principal components analysis revealed the presence of three components with eigenvalues exceeding 1, explaining 36%, 17.2% and 12% of the variance respectively and 64.459% in total. An inspection of the screeplot revealed a clear break after the second component. Using Catell's (1996) scree test, it was decided to retain three components for further investigation (Pallant, 2010), because of the theoretical support for these three components, as discussed in chapter two. To aid in the interpretation of these three components, oblimin rotation was performed. The rotated solution revealed the presence of 6 loadings on component 1, 5 loadings on component 2 and three loadings on component 3. The factor loadings of the 12 items on the three components are shown in Table 8 below.

Table 8: Factor Loadings based on principal components analysis with oblimin rotation for 12 items

	Component		
	Affective	**Behavioural**	**Cognitive**
B7_pre I look for ways to reduce costs	.83		
B5_pre I look for ways to improve the way I work	.79		
B8_ pre I work to maintain my focus on being more efficient	.74		
B6_pre I work to ensure that I assist in meeting my organisation's objectives	.58		.39
B1_pre I feel confident that I can meet my goals	.48		
B3_pre I am excited about how my work matters to our organisation		.89	
B2_pre I am excited about how my work matters to my team		.87	
B4_preI am happy to take on new responsibilities as the need arises	.47	.47	
B11_pre I have a good idea of what the organisation is trying to accomplish			.91
B10_pre I understand how my efforts are contributing to meeting the organisations objectives			.81
B12_pre I understand how my work impacts service delivery of my organisation			.71
B9_pre I recognise the link between what I do and organisational objectives			.65

Extraction Method: Principal Component Analysis.

Rotation Method: Oblimin with Kaiser Normalization

Factor loadings below 0.3 were suppressed.

Even though Item 1 ("I feel confident I can meet my goals") and Item 4 ("I am happy to take on new responsibilities as the need arises") were included as part of the affective construct, these items were seen by respondents as belonging to the behavioural construct. Items 1 and 4 showed low communality (0.31 and 0.40 respectively) and items 4 and 6 exhibited cross loading. However, the primary loading of item 6 is strong on component 1 (0.56). Little guidance for handling cross-loading items is provided in the literature; however, a general preference for maintaining simple structure (each item loading on only one factor) is expressed. The deletion of cross-loading items is usually the logical strategy, provided that the deletion of any item did not adversely affect the reliability of the scale from which it came. However, in this study items were not removed due to the limited number of items within the questionnaire.

Examination of internal consistency for each of the components through Cronbach's alpha yielded high alpha values for the behavioural (0.83) and cognitive (0.8) components and an acceptable alpha value for the affective component (0.76). The analyses showed that respondents identified that there was no clear delineation between the first (viz. affective) and second (viz. behavioural) constructs on the questionnaire, but identified a clear delineation of, and a strong correlation between, factors in the third (viz. cognitive) construct. Overall, the assumption that all three dimensions of knowledge sharing are inter-related can be confirmed through the strong correlation evident between the items on the questionnaire and thus endorses the construct validity of the instrument.

3.3.5.   Reliability of the instrument

Due to the nature of this study, establishing test-retest reliability of the data collection instruments or the intervention was not necessary. The aim of the study was to gain a snapshot view in time of a specific state of engagement within a specified organisation, and to determine subsequently whether a particular intervention could improve the level of engagement.

In terms of the internal consistency of the instrument, the Cronbach coefficient alpha test was used to measure the empirical reliability of the instrument. According to Pallant (2010, p. 6), the Cronbach coefficient alpha "provides an indication of the average correlation among all of the items that make up the scale". The Cronbach test showed good inter-item reliability with an overall score of 0.800 (0.76; 0.826 and 0.816 affective, behavioural and cognitive respectively) and therefore no items needed to be removed from the scale.

The theoretical reliability of the instrument revealed that while it is suggested by Macey et al. (2009) to group items as per the dimensions reflected in the survey used, respondents did not see the delineation between the items as per the identified constructs, and Kahn's (1990) personal engagement dimension emerged clearly in the grouping and separation of items within the affective and behavioural constructs.

3.4.   Research procedure

The research process consisted of three phases namely a base-line survey, the actual knowledge sharing intervention and the post intervention survey. These are discussed in more detail below.

3.4.1.   Phase 1: Base-line survey

The first survey was geared toward establishing the baseline employee engagement level within the sample group. The sample was representative of the entire population of employees. These employees were selected according to their salary level-split, and the researcher targeted the sample that would be able to provide an insight into the population. 100 surveys were administered to employees in accordance with the organisational structure that is split along

administrative, technical and strategic lines. Thus, 50% administrative, 30% technical and 20% strategic employees within the sample of 100 were asked to complete the survey.

Employees were given one week to complete the surveys – this was due to the understanding that different employees within the sample were faced with different work pressures and would not be able to complete the survey on the very same day as they received it.

3.4.2.   Phase 2: The intervention

Knowledge sharing sessions were set for the week after the baseline survey was completed. This second phase, which lasted three days, exposed the experimental group to eight knowledge sharing sessions, over the period, and focused on the re-orientation of employees. Overall, the intervention aimed to draw alignment between the different dimensions within the knowledge sharing and employee engagement frameworks.

3.4.3.   Phase 3: Post intervention survey

Following the intervention, a second survey was administered to both the control and experimental group a day after the completion of all intervention sessions.

3.5.   Statistical analysis

The completed surveys were captured in a database created for this purpose. Statistical analysis was conducted using SPSS Version 18. In Chapter 4, the ensuing statistical analysis will be used to determine the effect of the independent variable (that is, knowledge sharing) on the dependent variable (viz. employee engagement).

As this is a two-group design t-tests will be utilised to determine whether there are any significant differences between the employee engagement scores of the experimental and control groups prior to and after the knowledge sharing intervention (Pallant, 2010).

4.   RESEARCH ETHICS

The research study adhered to the guidelines for ethical research proposed by the University of Johannesburg, Faculty of Management Sciences. In addition, the guidelines proposed by Strydom in De Vos et al. (2005) were considered.

The study was conducted within the confines of an organisation, and for this reason permission was sought from the leadership in the organisation to conduct the study (See Annexure B). Participants were informed of the reason for the baseline survey, by enclosing a covering letter to each survey. By accepting the survey once the participant was briefed both by the researcher, as well as immediate supervisors in the organisation, those employees who chose to participate did so with informed consent (De Vos et al., 2005).

Participation in the study was thus voluntary and participants could decide not to complete the survey or to participate in the study. The research instrument indicated that all participants were assured of individual anonymity. While the survey did request an employee ID, this was deemed optional and employees could decide whether or not they wanted to disclose this or any other demographic information. Respondents were also informed that the results of the research would be disclosed only to enhance the level of engagement currently existent within the organisation. Confidentiality and non-disclosure of participants' identities was maintained throughout the data analysis and report on findings as an assessment of averages and themes was conducted to report the findings, and not information about individuals (de Vos et al., 2005).

The organisation was also protected against the findings being made public, and therefore the written permission was sought, which declared explicitly that the findings would remain confidential and the identity of the organisation would not be disclosed. The findings were only used for research purposes. The organisation was given the choice to utilise the findings to enhance the level of engagement within the organisation as a strategic measure.

5. CONCLUSION

This chapter outlined the research methodology, tools and models that were employed in this study's investigation of the effect of knowledge sharing on employee engagement. An intervention research model was chosen and was given effect by using quantitative assessment methods. The model necessitated that both a pre- and post-test assessment be conducted using a questionnaire research instrument that would subsequently be administered to a sample within a single organisation. This chapter further outlined the intervention that was chosen, the knowledge experts that were used to conduct the intervention, and the process embarked upon to decide on the content of the intervention to ensure effectiveness and alignment to the operational model developed for this study.

The following chapter provides a detailed discussion of the results of the study undertaken.

CHAPTER FOUR: RESULTS

1. INTRODUCTION

In the previous chapter an outline of how the research was to be conducted was presented. In this chapter the results gleaned from analysing the data will be provided, interpreted and discussed.

2. RESEARCH RESULTS

The results of the questionnaire will be discussed below. The results of both the experimental and control groups were obtained from two phases, namely a pre-measure and a post measure. T-tests were conducted to determine whether there were any significant differences between the employee engagement scores of the experimental group prior to and after the assessment t-tests are utilised to compare the means between two unrelated groups (Pallant, 2010). While the pre-post-test design will allow measuring the potential effects of the knowledge sharing intervention by examining the difference in the pre-test and post-test results, it does not allow to test whether this difference would have occurred in the absence of the intervention. Therefore the difference between the experimental and control group will also be analysed.

2.1. Hypothesis testing

The hypothesis has been tested through means of inferential statistics. Three sets of comparisons are of importance here namely: (i) the comparison of the experimental and control groups in terms of the pre-measurement; (ii) the comparison of the pre- and the post-measurements for the experimental and the control groups; and (iii) the comparison of the post-measurements between the experimental and the control groups.

2.1.1. Comparison of the experimental and control groups in terms of the pre-measurement

Table 9 compares the results of the experimental and control groups prior to the knowledge sharing intervention in terms of the 3 main dimension of employee engagement namely affective, behavioural and cognitive.

Table 9: Comparison of the experimental and control groups in terms of the pre-measurement

Dimension	Experimental group (n=37)				Control group (n=21)				t-value	p-value	df
	mean	sd	min	max	mean	sd	min	max			
affective	4.17	0.72	2.33	5	3.76	0.72	3.40	3.82	-1.81	.06	59
behavioural	4.14	0.74	1.75	5	4.16	0.13	3.90	4.20	-1.43	.16	59
cognitive	3.92	0.69	2	5	4.3	0.12	4.14	4.38	-.67	.51	59

A p-value of ≤ 0.05 indicates statistical significance. It can be concluded that there was no significant difference between the two groups prior to the knowledge sharing intervention (p>0.05). The two groups are equal.

2.1.2. Comparison of the pre- and the post-measurements for the experimental and the control groups

Table 10 highlights the significance of the difference between the pre- and post-measurements for the experimental group. The difference was calculated by subtracting the post mean measure (e.g. 9) from the pre mean measure (e.g. 6) and compared to 0. A negative result (e.g. -3) shows an increase in engagement.

Table 10: Significance of the difference between the pre- and post-measurements for the experimental group

Variable	N	mean pre	mean post	mean diff	sd	t-value	p-value
A1	37	4.17	4.2	-0.1	0.1	0.14	0.6
B1	37	4.14	4.2	-0.1	0.7	0.16	0.9
C1	37	3.92	4.1	-0.4	0.7	0.01	0.6

A1: Mean difference in terms of pre- and the post-measurement for the affective dimension
B1: Mean difference in terms of pre- and the post-measurement for the behavioural dimension
C1: Mean difference in terms of pre- and the post-measurement for the cognitive dimension

A p-value of ≤ 0.05 indicates statistical significance. It can be concluded that despite an increase in mean there is no significant difference between the pre and post measure results of the experimental group. As none of the results indicated a statistical significance the practical significance was not calculated. Table 11 highlights the significance of the difference between the pre- and post-measurements for the control group.

Table 11: Significance of the difference between the pre- and post-measurements for the control group

Variable	N		mean	mean	mean	sd	t-value	p-value
	pre	post	pre	post	diff			
A1	21	20	3.76	3.7	0.01	1.0	0.27	0.6
B1	21	20	4.16	4.1	0.01	0.5	0.00	0.6
C1	21	20	4.3	4.4	0.01	0.5	0.26	0.6

A1: Mean difference in terms of pre- and the post-measurement for the affective dimension

B1: Mean difference in terms of pre- and the post-measurement for the behavioural dimension

C1: Mean difference in terms of pre- and the post-measurement for the cognitive dimension

There was no difference between the pre- and post-measurements for the control group.

2.1.3. Comparison of the post-measurements between the experimental and the control groups

In order to test the hypothesis it is important to measure the significance of the differences between the experimental and control group. This testing was done by utilising t-tests.

Table 12 :Significance of differences (post measurment) between the experiemental and control group

Dimension	Experimental group (n=37)		Control group (n=21 - pre) (n=20 – post)		t-value	p-value
	mean	sd	mean	sd		
affective	4.2	0.6	3.7	0.9	2.90	0.5
behavioural	4.2	0.6	4.1	0.5	0.45	0.64
cognitive	4.1	0.6	4.4	0.5	-1.41	0.16

Twenty (20) people in the control group completed the survey post the intervention. No statistical significant differences are reported on any of the dimensions of employee engagement. As none of the results indicated a statistical significance, the practical significance was not calculated.

The hypothesis – "There is a difference between the level of employee engagement of the experimental group after attending a knowledge sharing intervention in comparison to the control group who has not attended the knowledge sharing intervention" is therefore rejected.

2.2. Exploratory analysis

The sample size diminished considerably when divided further by demographics, and consequently statistical significance or variances were not assessed for divisions in demographics.

3. CONCLUSION

In this chapter an analysis of the data was conducted, the hypothesis has been tested and the results were discussed. It was concluded that there is no statistically significant difference between the level of employee engagement of the experimental group after attending a knowledge sharing intervention in comparison to the control group who has not attended the knowledge sharing intervention.

The next chapter will now focus on the conclusion drawn and will also discuss the limitations of this study.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

1. INTRODUCTION

In this chapter the researcher will conclude the study by providing an overview of the entire research process. This chapter will also include some recommendations for future research, including some of the limitations of the study. It is important to reiterate that the purpose and objective of this study was to determine the impact of knowledge sharing on employee engagement.

2. OVERVIEW

The literature review in this study revealed that whilst employee engagement is widely spoken about and debated, a lack of clarity is evident related to the exact definition of the term and the forces that act as motivators for this form of engagement. The study has found that communication facilitates knowledge sharing. The study also highlighted that research on the relationship between internal communication and employee engagement is rare. What past research has found is a link between internal communication and certain factors of engagement, such as commitment.

The aim of this study was to therefore assess whether knowledge sharing could impact the level of employee engagement. Part of the study was to understand whether knowledge sharing impacted employee engagement, and to consider which dimensions would be affected in the multi-dimensional construct.

Given the results of the research, the following conclusions can be drawn, based on the objectives of the research, which were to:
1. Provide a working definition of the concept employee engagement and knowledge sharing;
2. Gain an understanding of the level of employee engagement currently existent within a government department, and
3. Understand the extent of impact of knowledge sharing on employee engagement after the introduction of a knowledge sharing intervention.

2.1. A working definition of the concept employee engagement

Chapter 2 explored the concepts of employee engagement and work engagement, and in the process established that employee engagement is distinct from the concept of work

engagement. The motivators of each were explored, as the similarities and differences of drivers were highlighted. It was concluded that employee engagement is a multi-dimensional construct made up three dimensions; affective (or how one feels), behavioural (or how one acts), and cognitive (i.e. what one believes).

The concept of knowledge sharing was also explored. It was revealed that the concept, like employee engagement, was a multi-dimensional construct. One of the motivators of work engagement to be identified was information sharing. The distinct difference between the concept of information and knowledge sharing was highlighted in Chapter 2. It was concluded, through the development of an operational model, that knowledge sharing was made up of a relational, structural and cognitive dimension. These dimensions were then related back to employee engagement and the relationship between these two constructs and each of the dimensions was highlighted.

2.2. Understand the level of employee engagement currently existent within a government department

Based on the literature reviewed in Chapter 2, an instrument to measure employee engagement was developed. Research questions explored the level of engagement on a 12 item instrument with a 5 point Likert scale. In order to establish content and face validity, the instrument was given to subject matter experts in a pilot study.

An exploratory factor analysis was administered to determine the validity of the instrument. The analysis revealed that the constructs within the instrument were valid. The Cronbach coefficient alpha test reflected good inter-item correlation of the instrument and the theoretical reliability of the questionnaire reflected the reliability of the questionnaire to test employee engagement.

The baseline level of employee engagement was established with a sample size of 100 participants. 61 respondents completed the baseline survey. The pre-assessment survey revealed the level of employee engagement, which was then compared to post-assessment results.

2.3. Understand the impact of knowledge sharing on employee engagement

The results of assessments conducted after the intervention revealed that no statistical significance could be established between the results in the pre- and post-assessment phases, or between those respondents exposed to the intervention and those who were not. The largest mean differences were reported in the cognitive dimension. An argument was also presented, with support from Bakker and Leiter (2010) and Macey et al., (2009) that while employee engagement is a construct that cannot be increased overnight, it is the concerted consistent focused efforts that are necessary for organisations to ensure long-term benefits. One possible explanation for these results could be that that knowledge sharing interventions should occur over a longer

period of time and that a once-off intervention wouldn't have the desired effect.

Research by Hayes (2009) indicated that when an organisation utilises a blend of traditional and new media channels, they will improve employee engagement. Another explanation for the results could be in the delivery of the knowledge sharing intervention and that the intervention should have rather utilised a blend of media channels and not only face-to-face delivery by the organisation's leadership. It was also determined that perceptions of the individual facilitating the intervention could impact the actual results. The study utilised senior leadership within the organisation regardless of the leader's current relationship with peers and sub-ordinates. The state of the leader-follower relationships within the organisation possibly also contributed to unsuccessful results.

According to Rothmann and Rothmann (2010) interventions to increase employee engagement should focus on work role fit. The success of the study could possibly have been improved if the knowledge sharing focussed more on the individual work role fit. The interventions were group based and didn't focussed on the individual per se.

Cawe (2006) assessed that organisations needed to approach engagement, like any other organisational strategy, holistically – beginning with a comprehensive encompassing employee engagement strategy which is realised through everyday human capital practices. Based on this argument the knowledge sharing intervention should therefore also be integrated into daily human capital practices. The organisational climate within which knowledge sharing interventions are initiated also needs careful consideration. Gupta (2011) highlights that when employees find themselves in a highly politicised environment they would be less likely to share knowledge. Given the climate within which the study was undertaken the results of Gupta's (2011) study could support the aversion to sharing knowledge.

It is therefore concluded that a once-off knowledge sharing intervention wouldn't increase levels of employee engagement; however a more comprehensive approach that incorporates various media channels, embeds knowledge sharing as part of human resources practices and that are implemented over a longer period of time may deliver more positive results.

3.   CONTRIBUTION OF THE STUDY

This study could potentially add value to the body of knowledge in various ways.

3.1.   Theoretical

Even though the term 'engagement' is used in literature sometimes to refer to work engagement and in other instances employee engagement or personal engagement (Bakker & Leiter, 2010)

this research drew the distinction between work engagement and employee engagement, and showed the essential components of employee engagement to ensure that the research focused on the construct under investigation.

An important contribution of this study is that it examined the multi-dimensional constructs of employee engagement and knowledge sharing. By doing so, operational models for both employee engagement and knowledge sharing were developed.

3.2. Practical

The practical application of this study has implications for organisations and human resources managers. Despite not being able to provide the necessary research evidence the study did provide a model and framework for sharing knowledge within organisations. If human resources practitioners facilitate knowledge sharing conversations based on the criteria set-out the level of knowledge sharing, understanding and knowledge retention might be increased within organisations.

4. LIMITATIONS OF THE STUDY

The greatest limitation on this study was the availability of a large sample. The existent population was small (189), which diminished when the sample (100) was chosen. The poor response rate brought the available sample down to 61 respondents. Numbers decreased considerably as divisions in demographics was employed, as well as the distinction between the respondents who attended knowledge sharing sessions compared to those who did not. This contributed greatly to the lack of statistical significance that could be drawn between the results achieved.

The study relied on the social capital framework of knowledge sharing (i.e., structural, relational, cognitive dimensions). However, other perspectives of social network theories such as structural holes and closeness of network may improve the understanding of knowledge sharing in teams and communities of practice. These theories may be useful because they recognise that employees do not share knowledge in isolation but are embedded in social networks.

5. RECOMMENDATIONS FOR FUTURE RESEARCH

While the constructs of knowledge sharing and employee engagement are fairly large subjects, there are many implications for future research that this study provides. The results of this study show only a glimpse at the relationship between the two, but it has brought forth specific areas from each construct for future inquiry. A number of recommendations can be made to further an understanding of employee engagement and the effect of knowledge sharing on employee engagement. This section will also focus on recommendations for improving the research methodology utilised in this study.

In order to ensure that future research attains statistical significance it is recommended that a theoretically reliable instrument be developed, which targets all dimensions of employee engagement (the physical, emotional and cognitive components) The instrument will allow for the establishment of existing levels of employee engagement and an indication of areas of improvement to ensure targeted interventions are conceived.

Longitudinal intervention studies are recommended as an area of focus for employee engagement research. Further, longitudinal intervention research studies are recommended to enable understanding of impact of knowledge sharing interventions on employee engagement over time. A mixed methods research methodology would assist in understanding and exploring elements highlighted in results achieved from the administration of the instrument. To this end, there have been elements within the research that have been highlighted as those areas were exploration would have aided in fully understanding the impact of knowledge sharing on employee engagement. Developing an instrument to assess impact of knowledge sharing would also assist in identifying and understanding areas for improvement in the conception of knowledge sharing interventions.

6. CONCLUSION

The introduction of this study highlighted the interest that has been developing over the years in employee engagement. Having explored this research, the literature review, together with the empirical study, has highlighted that more work is needed in the area of understanding the core motivators of employee engagement. This understanding will aid in establishing the necessary interventions that organisations must explore to enable them to gain maximum alignment between individual and organisational objectives. This alignment will serve to not only retain the organisation's most valuable asset but will further ensure that organisational objectives and financial performance are achieved.

REFERENCES

Abou-Zeid, E. S. (2007). A theory-based approach to the relationship between social capital and communities of practice. *The Electronic Journal of Knowledge Management* , 5(3), 257 - 264.

Abrams, L. C., Cross, R., Lesser, E., & Levin, D. Z. (2003). Nurturing interpersonal trust in knowledge-sharing networks. *Academy of Management Executive* , 17(4), 64-77.

Al-Alawi, A. I., Al-Marzooqi, N. Y., & Mohammed, Y. F. (2007). Organizational culture and knowledge sharing: critical success factors. *Journal of Knowledge Management*, 11(2), 22-42.

Alavi, M. & Leidner, D. E. (2001). Knowledge management and knowledge management systems: conceptual foundations and research issues. *Management Information Systems Quarterly*, 25(1), 107-136.

Allen, N. J. & Meyer, J.P. (1990). The measurement and antecedents of affective, continuance and normative commitment to the organisation. Journal of Occupational Psychology, 63(1), 1–18.

Anand, R. (2009). *Unemployment rises as 484,000 jobs lost in South Africa in Q3*. Retrieved March 09, 2010, from http://www.globalcrisisnews.com

Apostolou, D. & Mentzas, G. N. (1999). Managing corporate knowledge: a comparative analysis of experiences: part i. *Knowledge and Process Management,* 6(3), 129-138.

Apostolou, D. & Mentzas, G. N. (1999). Managing corporate knowledge: a comparative analysis of experiences: part ii. *Knowledge and Process Management*, 6(4), 238-254.

Argote, L; McEvily, B & Reagans, R. (2003). Managing Knowledge in Organizations: An Integrative Framework and Review of Emerging Themes. *Management Science*, 49(4), 571-582.

Argyris, C. & Schon, D. (1978). *Organisational learning: A theory of action perspective. Massachussetts*: Addison Wesley.

Ariana, D.W. (2013). The relationship between employee engagement, organizational citizenship behaviour, and counterproductive work behaviour. I*nternational Journal of Business Administration*, 4(2), 46-56.

Arthur, W. (1994). Inductive reasoning and bounded rationality. American Economic Review, 84 (2), 406–411.

Bacon, S. F. (1597). The works of Francis Bacon (1887-1901). In R. E. James Spedding, 'Meditationes Sacrae', Vol. 7, 253.

Bagshaw, M. (2000). Why knowledge management is here to stay. Industrial and Commercial Training , 32(5), 179-182.

Bailey, C. & Clarke, M. (2001). Managing knowledge for personal and organisational benefit. Journal of Knowledge Management , 5(1), 58 - 68.

Bateman, T.S. and Organ, D.W. (1983). Job satisfaction and the good soldier: the relationship between affect and citizenship. Academy of Management Journal, 26, 587-595.

Bakker, A. B. & Demerouti, E. I. (2008). Towards a model of work engagement. Career Development International, 13(3), 209-333.

Bakker, A. B. & Leiter, M. P. (2010). Work engagement: a handbook of essential theory and research. New York: Taylor and Francis.

Bal, M., Bal, Y. & Demirhan, A. (2011). Creating competitive advantage by using data mining technique as an innovative method for decision making process in business. Annual conference on innovations in business and management. Conducted by the Centre for Innovations in Business and Management Practice. London: The Centre for Innovations in Business and Management Practice.

Barkhuizen, N., & Rothmann, S. (2006). Work engagement of academic staff in South African higher education institutions. Management Dynamics, 15(1), 38–48.

Barney, J. B. (1995). Looking inside for competitive advantage. Academy of Management Executive, 9(4), 49−61.

Bateman, T.S. & Organ, D.W. (1983). Job satisfaction and the good soldier: the relationship between affect and citizenship. Academy of Management Journal, 26, 587-595.

Beckman, T. (1997). A Methodology for knowledge management. International Association of Science and Technology For Development (IASTFD) AI and Soft Computing Conference. Canada.

Bender, S., & Fish, A. (2000). The transfer of knowledge and the retention of expertise: the continuing need for global assignments. *Journal of Knowledge Management*, 4(2), 125-137.

Bontis, N., & Fitz-enz, J. (2002). Intellectual capital ROI: a causal map of human capital antecedents and consequents. *Journal of Intellectual Capital*, 3(3), 223-247.

Brown, J. S. & Duguid, P. (1991). Organisational learning and communities of practice: Toward a unified view of working, learning and innovation. *Organisation Science*, 2(1), 40-57.

Burkowitz, W. R. & Williams, R. L. (1999). *The knowledge management fieldbook*. Harlow: Pearson Education.

Cawe, M. (2006). *Factors contributing to employee engagement in South Africa*. Masters dissertation. Johannesburg: University of the Witwatersrand.

Chartered Institute of Personnel and Development. (2006). *Reflections on employee engagement: change agenda*. London: CIPD.

Chen, Z.J., Zhang, X. & Vogel, D. (2011, May). Exploring the Underlying Processes Between Conflict and Knowledge Sharing: A Work-Engagement Perspective. *Journal of Applied Psychology*, 41(5), 1005–1033.

Chua, A. (2003). Knowledge sharing: a game people play. *Aslib Proceedings*, 55(3), 117-129.

Coleman, J. (1988, December). Social capital in the creation of human capital. *American Journal of Sociology*, 94, S95-S120.

Coleman, J. (1990). *Foundations of social theory*. Cambridge, MA: Harvard University Press.

Creswell, J. (1994). *Research design: qualitative and quantitative approaches*. USA: Sage Publications.

Crozier, A. (2010). Engaged and enriched. *Communication World*, 27(1), 32-36.

Cummings, J. (2003). *Knowledge sharing: a review of the literature*. Washington: World Bank.

De Vos, A. S., Strydom, H., Fouche, C. B. & Delport, C. S. (2005). *Research at grass roots for the social sciences*. Pretoria: van Schaik Publishers.

De Vries, R.E., Van den Hooff, B. & De Ridder, J.A. (2006). Explaining knowledge sharing: the role of team communication styles, job satisfaction and performance beliefs. *Communication Research*, 33(2), 115-135.

Dearlove, D. & Crainer, S. (2009). *Keeping top talent in a down economy*. Retrieved March 09, 2010, from http://www.management-issues.com/2009/11/19/mentors/keeping-top-talent-in-a-down-economy.asp

Devi, V. (2009). Employee engagement is a two-way street. *Human Resources Management International Digest*, 17(2), 3-4.

Duffy, J. (2000). Knowledge management: to be or not to be? *Information Management Journal*, 34(1), 64-67.

Ferguson, A. (2005). Employee engagement: does it exist, and if so, how does it relate to performance and other job constructs such as commitment? *Annual Industrial/Organisational Psychology Conference*. Australia: Macquarie University.

Ferrer, J. (2005). Employee engagement: is it organisational commitment renamed? *Working paper series school of management .*

Finestone, N. & Snyman, R. (2005). Corporate South Africa: making multicultural knowledge sharing work. *Journal of Knowledge Management*, 9(3), 128-141.

Finney, M. (2008). *The truth about getting the best from people: get rid of the carrot and the stick*. New Jersey: Pearson Education.

Fleming, J. (2009). From Gallup: why engagement is essential. *Strategic Communication Management*, 13(4), 7.

Frazer, L., & Lawley, M. (2000). *Questionnaire design and administration*. Australia: John Wiley and Sons.

Gallup. (2001). *Employee engagement: a leading indicator of financial performance*. Retrieved May 18, 2010, from Gallup http://www.gallup.com/consulting/52/Employee-Engagement.aspx

Granovetter, M. (1973). The strength of weak ties. *American Journal of Sociology* , 78(6), 1360-1380.

Granovetter, M. S. (1985). Economic action and social structure: the problem of embeddedness. *American Journal of Sociology*, 91(3), 481-510.

Grant, R. (1996). Toward a knowledge-based theory of the firm. *Strategic Management Journal*, 17(1), 109-122.

Greenberg, J. (2004, October). Increasing employee retention through employee engagement. *Alphameasure Incorporated Publication*, 3.

Gupta, B. (2011). Employees' knowledge sharing behaviour and work engagement: the role of organisational politics. *International Journal of Business Excellence*, 4(2), 160-177.

Hakansson, H., and Snehota, I. (1995). *Developing relationships in business networks*. London: Routledge.

Hamel, G. (1991, Summer). Competition for competence and inter-partner learning within international strategic alliances. *Strategic Management Journal*, 12, 83-103.

Hansen, M. (1999). The search-transfer problem: the role of weak ties in sharing knowledge across organisation sub-units. *Administrative Science Qquarterly*, 44(1), 82-111.

Harter, J. K., Schmidt, F. L. & Hayes, T. L. (2002). Business-unit-level relationship between employee satisfaction, employee engagement, and business outcomes: a meta-analysis. *Journal of Applied Psychology*, 87(2), 268-279.

Hayase, L.K.T. (2009). Internal Communication in Organizations and Employee Engagement. Masters dissertation. Las Vegas: University of Nevada.

Henderson, J. C. (1990). Plugging into strategic partnerships: the critical is connection. *Sloan Management Review*, 30(3), 7-18.

Holland, J. H., Holyoak, K. J., Nisbett, R. E. & Thagard, P. R. (1986). *Induction: process of inference, learning, and discovery*. Massachussetts: MIT Press.

Hung, Y.C. & Chuang, Y.-H. (n.d.). *Factors affecting knowledge sharing behaviour*: A content analysis of empirical findings. Taiwan: Department of Accounting and Information Technology, National Chung Cheng University.

Huysamen, G.K. (1993). *Methodology for the Social and Behavioural Sciences. Pretoria*: Sigma Press.

Jackson, S. E., Hitt, M. A. & DeNisi, S. A. (2003). *Managing knowledge for sustained competitive advantage*. United States of America: John Wiley and Sons.

Jarvenpaa, S. L. & Staples, D.S. (2001). Exploring perceptions of organisational ownership of information and expertise. *Journal of Management Information Systems*, 18(1), 151-183.

Jayne, R. L. (2006). *Knowledge worker: human resource strategy to achieve a competitive advantage*. Davenport, Iowa: St. Ambrose University.

Jennex, M. E. Smolnik, S & Croasdell, D.T. (2009). Towards a consensus knowledge management success definition. *Journal of Information and Knowledge Management Systems*, 39(2), 174-188.

Joubert, M. (2010). *Identifying enabling management practices for employee engagement*. Masters dissertation. Johannesburg: University of Johannesburg.

Kahn, W. (1990). Psychological conditions of personal engagement and disengagement at work. *Academy of Management Journal*, 33(4), 692-724.

Kakabadse, N.K; Kouzmin, A & Kakabadse., A. (2001). From tacit knowledge to knowledge management. *Knowledge and process management*, 8(3), 137-154.

Kanungo, R.N. (1982). Measurement of job and work involvement. *Journal of Applied Psychology*, 67, 341-349.

Katz, M. (1998). Learning focus: *knowledge management. People Dynamics* , 16(6), 50-56.

Kinnear, L. & Sutherland, M. (2000). Determinants of organisational commitment amongst knowledge workers. *South African Journal of Business Management*, 31(3), 106-112.

Knox-Davies, B. (2010). *The extent to which a learning organisation culture influences employee engagement in two service based organisations in the property sector of South Africa*. Masters dissertation. Johannesburg: Gordon Institute of Business Science.

Konrad, A. M. (2006). Engaging employees through high-involvement work practices. *Ivey Business Journal*, March-April, 1-6.

Kwok, J. S. & Gao, S. (2004). Knowledge sharing community in p2p network: a study of motivational perspective. *Journal of Knowledge Management*, 8(1), 94-102.

Kular, S., Gatenby, G., Rees, C., Soane, E., & Truss, K. (2008). Employee Engagement: A Literature Review. Working paper series. Retrieved on April 09 2013 from http://eprints.kingston.ac.uk/4192/1/19wempen.pdf

Lee, J. H., Kim, Y.G., & Kim, M.Y. (2006). Effects of managerial drivers and climate maturity on knowledge-management performance: Empirical validation.
Information Resources Management Journal, 19(3), 48—60.

Leedy, P. D., & Ormrod, J. E. (2010). *Practical research: Planning and design* (9th ed.). Upper Saddle River, NJ: Prentice Hall.

Levin, D., Lesser, E., Cross, R. & Abrams, L. (2002). Trust and knowledge sharing: a critical combination. *IBM Institute for knowledge-based organizations white paper* .

Li, J., Brake, G., Champion, A., Fuller, T., Gabel, S. & Hatcher-Busch, L. (2009). Workplace learning: the roles of knowledge accessibility and management. *Journal of Workplace Learning*, 21(4), 347-364.

Lin, N. (1999). Building a network theory of social capital. *Connections*, 22(1), 28-51.

Lin, W. (2008). The effect of knowledge sharing model. *Expert Systems with Applications*, 34(1), 1508–1521.

Lockwood, N.R. (2007). Leveraging employee enagment for competivie advantage. SHRM Research Quarterly, 1, 1-10.

Little B. & Little, P. (2006). Employee engagement: conceptual issues. *Journal of Organizational Culture, Communications and Conflict*, 10(1),111.

Macey, W. H. & Schneider, B. (2008). The meaning of employee engagement. *Industrial and Organisational Psychology*, 1(1), 3-30.

Macey, W. H., Schneider, B., Barbera, K. M. & Young, S. A. (2009). *Employee engagement: tools for analysis, practice and competitive advantage*. United Kingdom: Wiley-Blackwell.

Marsh, D., & Furlong, E. (2002). Ontology and epistemology in political science. In D. Marsh, & G. Stoker, *Theory and methods in political science* (2nd ed.). Basingstoke: Palgrave.

Maslach, C. & Leiter, M. (1997). *The truth about burnout*. San Francisco: Jossey-Bass.

Maslach, C., Schaufeli, W. B. & Leiter, M. (2001). Job burnout. *Annual Review of Psychology, 52*(1), 397-422.

May, D.R. Gilson, R.L. and Harter, L.M. (2004). The psychological conditions of meaningfulness, safety and availability and the engagement of the human spirit at work, *Journal of Occupational and Organisational Psychology, 77,* 11-37.

McDermott, R. & O'Dell, C. (2001). Overcoming cultural barriers to sharing knowledge. *Journal of Knowledge Management*, 5(1), 76-85.

Mearns, M. & Jacobs, L. (2009).*Teaching to Learn and Learning to Share: Assessing a Culture of Sharing Amongst Information and Knowledge Management Students in a Virtual Environment.* Retrieved April 22, 2010, from ujdigispace.uj.ac.za/handle/10210/5281

Melcrum Publishing. (2005). *An independent research report employee engagement.* United Kingdom: Melcrum.

Muthusamy, S. K. & Palanisamy, R. P. (2004). Leveraging cognition for competitive advantage: a knowledge-based strategy process. *Journal of Information and Knowledge Management*, 3(3), 259-272.

Myers, P. (1996). *Knowledge management and organizational design.* Massachussetts: Butterworth-Heinemann.

Nahaphiet, J. & Ghoshal, S. (1998). Social capital, intellectual capital, and the organisational advantage. *The Academy of Management Review*, 23(2), 242-266.

Newman, D. A. & Harrison, D.A. (2008). Been there, bottled that: are state and behavioural work engagement new and useful construct "wines"? *Industrial and Organisational Psychology*, 1(1), 31-35.

Nonaka, I. (1991, November-December). The knowledge creating company. *Harvard Business Review*, 69, 96-104.

Pallant, J. (2010). *SPSS Survival Manual.* Australia: Allen & Unwin.

Rangarajan, C. (2006). Responding to globalisation: India's answer. *4th Ramanbhai Patel Memorial lecture on Excellence in Education* . Retrieved on 22 March 2010 from www.eac.gov. in.

Robinson, D., Perryman, S. & Hayday, S. (2004, April). Drivers of Employee Engagement. *Report 408*. Institute for Employment Studies.

Rothmann, S., & Rothmann, S. (2010). Factors associated with employee engagement in South Africa. *SA Journal of Industrial Psychology*, 36(2), Art. #925, 12 pages, DOI: 10.4102/sajip. v36i2.925

Roos, J. & von Krogh, G. (1996). The epistemological challenge: managing knowledge and intellectual capital. *European Management Journal*, 14(4), 333-432.

Saks, A. (2006). Antecedents and consequences of employee engagement. *Journal of Managerial Psychology*, 21(7), 600-619.

Schaufeli, W. B., Bakker, A. B., & Salanova, M. (2006). The measurement of work engagement of with a short questionnaire: A cross-national study. *Educational and Psychological Measurement,* 66(4), 701-716.

Schaufeli, W. B., & Bakker, A. B. (2010). Defining and measuring work engagement: Bringing clarity to the concept. In A. B. Bakker & M. P. Leiter, Work Engagement: *A Handbook of Essential Theory and Research* (pp. 10-24). New York: Psychology Press.

Schaufeli, W. B. & Salanova, M. (2007). *Work engagement: an emerging psychological concept and its implications for organizations*. In S. W. Gilliland, D. D. Steiner & D. P. Skarlicki, (Ed.), Managing social and ethical issues in organizations. Research in social issues in management.

Schaufeli, W. B., Salanova, M., Alez-Rom, V. G., & Bakker, A. B. (2002). The measurement of engagement and burnout: a two sample confirmatory factor analytic approach. *Journal of Happiness Studies* 3(3), 71–92.

Schmidt, F. (2004). *Workplace well-being in the public sector – a review of the literature and the road ahead for the Public Service Human Resources Management Agency of Canada*. Retrieved April 22, 2010, from http://www.hrma-agrh.gc.ca/hr-rh/wlbpseeoppfps/documents/ WorkplaceWell-Being.pdf

Scottish Executive Social Research (2007). *Employee Engagement in the Public Sector, A Review of Literature*. Retrieved 08 April 2013, from www.scotland.gov.uk/socialresearch

Selen, W. (2000). Knowledge management in resource-based competitive environments: a roadmap for building learning organizations. *Journal of Knowledge Management*, 4(4), 346 - 353.

Simpson, M. (2009). Engagement at work: A review of the literature. *International Journal of Nursing Studies*, 46(7), 1012–1024.

Smith, K. (2000). *What is the 'knowledge economy'? Knowledge intensive industries and distributed knowledge bases*. European Commission. Norway: STEP Group.

Snyman, R. & Kruger, C. J. (2004). The interdependency between strategic management and strategic knowledge management. *Journal of Knowledge Management*, 8(1), 5-19.

Song, J. H., and Chermack, T. J. (2008). A theoretical approach to the organizational knowledge formation process: integrating the concepts of individual learning and learning organisation culture. *Human Resource Development Review*, 7(4), 424-442.

Song, J. H., Kim, H. M. & Kolb, J. A. (2009). The effect of learning organization culture on the relationship between interpersonal trust and organizational commitment. *Human Resource Development Quarterly*, 20(2), 147-167.

Spender, J. (1996). 'Competitive advantage from tacit knowledge? Unpacking the concept and its strategic implications'. In B. Moingeon, & A. Edmondson, *Organizational Learning and Competitive Advantage*. London: Sage.

Thomas, K. W. (2009). *Intrinsic motivation at work: What really drives employee engagement*. San Franciso: Berrett-Koehler.

Tichy, N., Tushman, M. & Fomburn, C. (1979). Social network analysis for organisations. *Academy of Management Review*, 4(4), 507-519.

Towers Perrin. (2003). The 2003 Towers Perrin Talent Report. Retrieved February 04, 2010, from Working Today: Understanding What Drives Employee Engagement: http://www.keepem

Towers Perrin HR Services. (2006). *Winning strategies for a global workforce. Attracting, retaining and engaging employees for competitive advantage*. Towers Perrin Global Workforce Study Executive Report.

Towers Watson. (2008). *Closing the engagement gap:a road map for driving superior business performance*. Towers Perrin Global Workforce Study 2007-2008. New York: Towers Watson.

Truss, C., Soane, E., Edwards, C., Wisdom, K., Croll, A. and Burnett, J. (2006) *Working Life: Employee Attitudes and Engagement 2006*. London: CIPD.

Turban, E. (1992). *Expert systems and artificial intelligence*. New York: MacMillan Publishing Co.

Turban, E., Aronson, J. E. & Liang, T. (2005). Decision support systems and Intelligent Systems, (7. ed.) Upper Saddle River, NJ.: Prentice-Hall.

Uzzi, B. (1996). The sources and consequences of embeddedness for the economic performance of organisations. *American Sociological Review*, 61(4), 674-698.

von Krogh, G. (1998). Care in knowledge creation. California Management Review , 40(3), 133-153.

von Krogh, G. & Roos, J. (1996). A perspecive on knowledge, competence and strategy. *Personal Review*, 24(3), 56-76.

Wallach, E. J. (1983, February). Individuals and organizations: The cultural match. *Training and Development Journal*, 37(2), 28-36.

Wang, S. & Noe, R. A. (2010). Knowledge sharing: a review and directions for future research. *Human Resource Management Review* , 20(2), 115-131.

Weiss, L. (1999). Collection and connection: The anatomy of knowledge sharing in professional service firms. *Organization Development Journal*, 17(4), 61-77.

Welch, M. (2011) The evolution of the employee engagement concept: communication implications. *Corporate Communications: An International Journal*, 16(4), 328-346.

Wellins, R. S., Bernthal, P. & Phelps, M. (2005). *Employee engagement: the key to competitive advantage*. Pittsburgh: Development Dimensions International.

Wellins, R. & Concelman, J. (2005). *Creating a culture for engagement*. Retrieved from Workforce performance solutions: http://www.ddiworld.com/pdf/wps_engagement_ar.pdf.

Wenger, E. (n.d.). *Communities of practice:a brief introduction*. Retrieved March 04, 2010, from www.googlescholar.com.

Wiig, K. M. (1993). *Knowledge management foundations: thinking about thinking - how people and organinsations create, represent and use knowledge*. Texas: Schema Press.

Wisker, G. (2001). *The Postgraduate Research Handbook*. Great Britain: Palgrave.

Zaheer, A., McEvily, B. & Perrone, V. (1998). Does trust matter? Exploring the effects of interorganisational and interpersonal trust on performance. *Organization Science*, 9(2), 141-159.

Zigarmi, D., Nimon, K., Houson, D., Witt, D. & Diehl, J. (2009). Beyond engagement: toward a framework and operational definition for employee work passion. *Human Resource Development Review*, 8(3), 300-326.

ANNEXURE A

Questionnaire

PLEASE ANSWER THE FOLLOWING QUESTIONS BY CROSSING (O) THE RELEVANT BLOCK OR WRITING DOWN YOUR ANSWER IN THE SPACE PROVIDED.

EXAMPLE of how to complete this questionnaire:		
Your gender?		
If you are female:		
Male	1	
Female	2X	

Section A – Background Information

This section of the questionnaire refers to background or biographical information. Although we are aware of the sensitivity of the questions in this section, the information will allow us to compare groups of respondents. Once again, we assure you that your response will remain anonymous. Your co-operation is appreciated.

Employee Number/Employee ID   ....

Gender

Male	1
Female	2

Age (in years)

19-35	36-45	≥45

Race

Black	1
White	2
Coloured	3
Indian or Asian	4

Salary Level

1-8	1
9-12	2
13-16	3

Number of Years Employed within this organisation

1-3	1
4-6	2
7-10	3
>10	4

Section B

This section of the questionnaire explores your thoughts and feelings presently.

TO WHAT EXTENT DO YOU AGREE WITH EACH OF THE FOLLOWING STATEMENTS?

Please indicate your answer using the following 5-point scale where:

1	= Not at all
2	= To a small extent
3	= To a moderate extent
4	= To a great extent
5	= To a very great extent

Please be completely honest and indicate the response that makes the most sense **right now. Please ensure that you answer all questions**.

	Not at all	To a small extent	To a moderate extent	To a great extent	To a very great extent
Right now….					
I feel confident that I can meet my goals	1	2	3	4	5
I am excited about how my work matters to my team	1	2	3	4	5
I am excited about how my work matters to our organisation	1	2	3	4	5
I am happy to take on new responsibilities as the need arises	1	2	3	4	5
Presently….					
I look for ways to improve the way I work	1	2	3	4	5
I work to ensure that I assist in meeting my organisation's objectives	1	2	3	4	5

I look for ways to reduce costs	1	2	3	4	5
I work to maintain my focus on being more efficient	1	2	3	4	5
Today….					
I recognise the link between what I do and organisational objectives	1	2	3	4	5
I understand how my efforts are contributing to meeting the organisation's objectives	1	2	3	4	5
I have a good idea of what the organisation is trying to accomplish	1	2	3	4	5
I understand how my work impacts service delivery of my organisation	1	2	3	4	5

Thank you for taking the time to participate in this research. Kindly return the questionnaire as specified in the cover letter.

ANNEXURE B

RE-ORIENTATION SCHEDULE

Date	Branch	Time	Presentation	Knowledge Sharer
22 June 2011	ISS, CFO, DG and Private Office	09h00 – 09h45	Vision & Mission	Monica Newton
		10h00 – 11h00	Submissions	Monica Newton
		11h15 – 12h00	Policies	Henry Sokwane
	P&G and GCIS	12h00 – 13h00	Vision & Mission	Monica Newton
		13h15 – 14h15	Submissions	Monica Newton
		14h30 – 15h30	Policies	Henry Sokwane
23 June 2011	ISS, CFO, DG and Private Office	08h30 – 09h15	Security	Gash Rungasamy
		09h20 – 10h00	IT & Auxilliary Services	Girish Magan
		10h00 – 10h45	Supply Chain Management – Procurement & Contracts	Roshini Singh
		10h45 – 11h15	Supply Chain Management – Inventory Management	Agnes Oersen
		11h15 – 11h45	Supply Chain Management – Assets & Transport	Mpho Malefane
	P&G and GCIS	12h00 – 12h45	Security	Gash Rungasamy
		12h50 – 13h30	IT & Auxilliary Services	Girish Magan
		13h30 – 14h15	Supply Chain Management – Procurement & Contracts	Roshini Singh
		14h15 – 14h45	Supply Chain Management – Inventory Management	Agnes Oersen

		14h45 – 15h30	Supply Chain Management – Assets & Transport	Mpho Malefane
28th June 2011	Employees that did not attend	08h30 – 09h15	Vision & Mission	Monica Newton
		09h20 – 10h30	Submissions	Monica Newton
		10h30 – 11h15	Policies	Henry Sokwane
		11h15 – 12h00	Security	Gash Rungasamy
		12h00 – 12h45	IT & Auxilliary Services	Girish Magan
		13h30 – 14h15	Supply Chain Management – Procurement & Contracts	Roshini Singh
		14h15 – 14h45	Supply Chain Management – Inventory Management	Agnes Oersen
		15h00 – 15h30	Supply Chain Management – Assets & Transport	Mpho Malefane

ANNEXURE C

REORIENTATION SESSIONS – CONTENT

The content of the re-orientation sessions are explained below. All sessions will include an overview of key policies, the purpose of the policies as well as the practical implication within the area being addressed as well as to the office as a whole.

Content	Date	Duration
Strategy: *Explanation of organisation strategy, vision and mandate.*		
Vision & Mission	**22nd & 28th June 2011**	**30 minutes**

> Vision and Mission
> Drills down to the APP's (Linkage)
> Use of examples

Submissions	**22nd & 28th June 2011**	**1 hour**

> Layout
> Framework
> What are the differences between memos (including cabinet memos, letters and reports

Human Resources: *Explanation of the people strategy and related processes*

Policies	**22nd & 28th June 2011**	**1.5 hours**

> Policies – particular HR policies
> Intranet

Safety & Security: *Explanation of the importance of protection of information and demonstration of how easily information can be leaked into the wrong hands*

Security	**23rd & 28th June 2011**	**30 minutes**

> Access – working after hours
> General Security
> OHS
> Parking
> Introduction to MISS

Communication: _An explanation of tools/ venues to obtain information and knowledge._

IT & Auxiliary   **23rd & 28th June 2011   1 hour**

➢   Bandwidth – General Tips

➢   Emails, downloads, screensavers and pictures

➢   Document Management – etiquette

➢   Backup of documents

➢   Office allocation

➢   How does registry work

➢   Refreshment services

➢   Policies

Procurement: _Explanation of procurement process_

Procurement   **23rd & 28th June 2011   45 minutes**

➢   Standard procurement procedures

➢   Amounts – DAC

➢   DAC Submissions

➢   SLA's – who authorises?

Finance: _Explanation of financial process as well as the PFMA_

Assets, Transport & Inventory Management 23rd & 28th June 2011   1 hour

➢   Stores

➢   Movement of assets – who and how

➢   Policies

ANNEXURE D

RESULTS OF PRE and POST ASSESSMENT SAMPLE SCORES

PRE-ASSESSMENT

		Not at all	To a small extent	To a moderate extent	To a great extent	To a very great extent	Total
B1_pre I feel confident that I can meet my goals	Count	1	3	13	31	13	61
	Row N %	1.6%	4.9%	21.3%	50.8%	21.3%	100.0%
B2_pre I am excited about how my work matters to my team	Count	3	2	12	28	16	61
	Row N %	4.9%	3.3%	19.7%	45.9%	26.2%	100.0%
B3_pre I am excited about how my work matters to our organisation	Count	3	6	8	25	19	61
	Row N %	4.9%	9.8%	13.1%	41.0%	31.1%	100.0%
B4_pre I am happy to take on new responsibilities as the need arises	Count	0	3	4	26	28	61
	Row N %	.0%	4.9%	6.6%	42.6%	45.9%	100.0%
B5_pre I look for ways to improve the way I work	Count	0	1	9	25	26	61
	Row N %	.0%	1.6%	14.8%	41.0%	42.6%	100.0%
B6_pre I work to ensure that I assist in meeting my organisation's objectives	Count	1	0	6	31	22	60
	Row N %	1.7%	.0%	10.0%	51.7%	36.7%	100.0%

			To a small extent	To a moderate extent	To a great extent	To a very great extent	Total
B7_pre I look for ways to reduce costs	Count	3	2	12	25	18	60
	Row N %	5.0%	3.3%	20.0%	41.7%	30.0%	100.0%
B8_pre I work to maintain my focus on being more efficient	Count	0	0	10	26	25	61
	Row N %	.0%	.0%	16.4%	42.6%	41.0%	100.0%
		Not at all	To a small extent	To a moderate extent	To a great extent	To a very great extent	Total
B9_pre I recognise the link between what I do and organisational objectives	Count	1	3	10	30	16	60
	Row N %	1.7%	5.0%	16.7%	50.0%	26.7%	100.0%
B10_pre I understand how my efforts are contributing to meeting the organisation's objectives	Count	2	2	11	30	16	61
	Row N %	3.3%	3.3%	18.0%	49.2%	26.2%	100.0%
B11_pre I have a good idea of what the organisation is trying to accomplish	Count	2	1	15	24	19	61
	Row N %	3.3%	1.6%	24.6%	39.3%	31.1%	100.0%
B12_pre I understand how my work impacts service delivery of my organisation	Count	1	1	5	30	24	61
	Row N %	1.6%	1.6%	8.2%	49.2%	39.3%	100.0%

POST-ASSESSMENT

		Not at all	To a small extent	To a moderate extent	To a great extent	To a very great extent	Total
B1_post I feel confident that I can meet my goals	Count	0	0	13	30	15	58
	Row N %	.0%	.0%	22.4%	51.7%	25.9%	100.0%
B2_post I am excited about how my work matters to my team	Count	2	4	8	30	14	58
	Row N %	3.4%	6.9%	13.8%	51.7%	24.1%	100.0%
B3_post I am excited about how my work matters to our organisation	Count	1	3	8	27	19	58
	Row N %	1.7%	5.2%	13.8%	46.6%	32.8%	100.0%
B4_post I am happy to take on new responsibilities as the need arises	Count	0	3	9	24	23	59
	Row N %	.0%	5.1%	15.3%	40.7%	39.0%	100.0%
B5_post I look for ways to improve the way I work	Count	0	0	9	24	26	59
	Row N %	.0%	.0%	15.3%	40.7%	44.1%	100.0%
B6_post I work to ensure that I assist in meeting my organisation's objectives	Count	0	0	7	29	23	59
	Row N %	.0%	.0%	11.9%	49.2%	39.0%	100.0%
B7_post I look for ways to reduce costs	Count	1	4	14	23	17	59
	Row N %	1.7%	6.8%	23.7%	39.0%	28.8%	100.0%
B8_post I work to maintain my focus on being more efficient	Count	0	0	6	35	17	58
	Row N %	.0%	.0%	10.3%	60.3%	29.3%	100.0%

		Not at all	To a small extent	To a moderate extent	To a great extent	To a very great extent	Total
B9_post I recognise the link between what I do and organisational objectives	Count	0	0	13	24	21	58
	Row N %	.0%	.0%	22.4%	41.4%	36.2%	100.0%
B10_post I understand how my efforts are contributing to meeting the organisation's objectives	Count	0	2	7	27	23	59
	Row N %	.0%	3.4%	11.9%	45.8%	39.0%	100.0%
B11_post I have a good idea of what the organisation is trying to accomplish	Count	0	1	13	22	23	59
	Row N %	.0%	1.7%	22.0%	37.3%	39.0%	100.0%
B12_post I understand how my work impacts service delivery of my organisation	Count	0	0	7	21	31	59
	Row N %	.0%	.0%	11.9%	35.6%	52.5%	100.0%