

**DEVELOPING EMOTIONAL INTELLIGENCE FOR INCREASED  
WORK ENGAGEMENT, ORGANISATIONAL COMMITMENT, AND  
SATISFACTION WITH WORK LIFE**

**By**

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## **DECLARATION**

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## ABSTRACT

Highly competitive organisations are aware that their competitive edge lies within their human capital. In order for such organisation to stay ahead investing in best practices regarding people management and development is of paramount importance. In recent times, work engagement has been empirically linked to many positive organisational outcomes (Bakker, Demerouti, & Verbeke, 2004; Salanova, Agut, & Peiro, 2005; Schaufeli, Taris, & Bakker, 2006a). However, research on practical organisational interventions, aimed at increasing work engagement, is scant.

Engaged employees often experience positive emotions (Bakker & Demerouti, 2008). Happy people are more sensitive to opportunities at work, more outgoing and helpful to others, more confident when interacting with others and more optimistic when taking on challenges. According to Bakker, Schaufeli, Leiter, and Taris (2008) engagement not only stems from job resources, but from personal resources as well. Building on Fredrickson's (2000) *Broad and Build* theory of positive emotions, it is argued in this study that Emotional Intelligence (EI) is a personal resource that has not been studied in relation to work engagement. EI refers to the capacity to effectively perceive, express, understand and manage emotions in a professional and effective manner at work (Palmer & Stough, 2001). EI regulation abilities (e.g. emotional management and control) help increase individuals' coping and / or resilience when more positive affect is experienced, according to Fredrickson's *Broad and Build* theory, and should therefore be a particularly important personal resource for the enhancement of work engagement. The development of EI has progressively been gaining positive momentum and various studies have provided empirical support to suggest that EI can be developed (Dulewicz & Higgs, 2004; Fletcher, Leadbetter, Curran, & O'Sullivan, 2009; Gardner, 2005; Gorgens-Ekermans, 2011; Nelis, Quoidbach, Mikolajczak, & Hansenne, 2009; Slaski & Cartwright, 2003). By using the Swinburne University Emotional Intelligence Test (SUEIT) theoretical framework, it is argued that by developing emotional recognition and regulation abilities, specifically that of emotional management, employees would be better able to manage their positive and negative emotions, thereby improving their positive psychological state at work, which should increase their level of engagement. It is furthermore argued that increased EI will also affect other positive organisational outcomes, such as organisational

commitment and satisfaction with work life. To this end, an EI training intervention programme was implemented and evaluated within an international courier company based in Cape Town, South Africa.

A controlled experimental design (two-group pre- and post-test design) was utilised for the research. The EI training programme was evaluated in terms of its effect on EI, work engagement, organisational commitment and satisfaction with work life. A second objective of the study was to investigate and replicate previous research on the interrelationships between the constructs in the study within a South African sample. The total sample consisted of 35 full time employees. Three assessments were conducted (one week before the start of the intervention, immediately after the completion of the training, and two and a half months thereafter) The findings of the study demonstrated limited empirical support for the notion that EI training could improve levels of EI. Although definite trends to suggest this were evident in the data, the results were not statistically significant. Empirical evidence further suggested partial and weak support for work engagement and satisfaction with work life levels increasing as a result of the intervention. Unfortunately no support for organisational commitment levels improving as a result of the training was found. In terms of exploring and replicating the interrelationships between the constructs in the study, favourable results were found. Significant positive relationships emerged between all the related constructs. The results, however, need to be interpreted in terms of the limitations that were identified for this study. The results suggest that more research is required in this domain.

## OPSOMMING

Hoogs kompeterende maatskappye is bewus daarvan dat hul vlak van mededingingheid grootliks opgesluit lê in hul menslike hulpbronne. Vir sulke organisasies om vooruitstrewend te wees, is die beleging in menseontwikkeling en bestuur van uiterste belang. Empiriese navorsing oor werknemerbetrokkenheid toon dat dit verband hou met baie positiewe organisatoriese uitkomst (Bakker, Demerouti, & Verbeke, 2004; Salanova, Agut, & Peiro, 2005; Schaufeli, Taris, & Bakker, 2006a). Navorsing oor praktiese organisatoriese intervensies om werknemersbetrokkenheid te verhoog, is egter skaars.

Werknemers met hoë werknemerbetrokkenheid ervaar gereeld positiewe emosies (Bakker & Demerouti, 2008). Gelukkige werknemers is meer bewus van geleenthede, is meer sosiaal en hulpvaardig, meer selfversekerd in sosiale omstandighede, en meer optimisties wanneer hulle gekonfronteer word met uitdagings. Volgens Bakker, Schaufeli, Leiter, en Taris (2008) spruit werknemersbetrokkenheid nie net voort uit werksbronne nie, maar ook vanuit persoonlike hulpbronne. Na aanleiding van Fredrickson se (2000) “*Broaden and Build*” teorie oor positiewe emosies word daar in hierdie studie geargumenteer dat Emosionele Intelligensie (EI) ‘n persoonlike hulpbron is, wat nog nie in verwantskap met werknemersbetrokkenheid bestudeer is nie. EI verwys na die kapasiteit om emosies binne die werkskonteks te kan herken, verstaan en bestuur op ‘n professionele en effektiewe wyse (Palmer & Stough, 2001). EI reguleringsvaardighede (bv. emosionele bestuur en beheer) bevorder individue se hanteringsvaardighede en veerkragtigheid wanneer meer positiewe emosies ervaar word. Volgens Fredrickson se “*Broaden and build*” teorie behoort dit dus ‘n belangrike persoonlike hulpbron te wees wat tot verhoogde werknemersbetrokkenheid kan lei. Positiewe voortuitgang in studies oor die ontwikkeling van EI bestaan tans en verskeie studies het tot dusver wetenskaplike steun verskaf vir die verwagting dat EI ontwikkel kan word (Dulewicz & Higgs, 2004; Fletcher, Leadbetter, Curran, & O’Sullivan, 2009; Gardner, 2005; Gorgens-Ekermans, 2011; Nelis, Quoidbach, Mikolajczak, & Hansenne, 2009; Slaski & Cartwright, 2003). Deur gebruik te maak van die Swinburne Universiteit Emosionele Intelligensie toets (die SUEIT) se teoretiese raamwerk, word daar geargumenteer dat die bevordering van emosionele herkennings- en reguleringsvermoë, spesifiek emosionele bestuur, werknemers se vermoë om hulle eie positiewe en negatiewe emosies te bestuur, behoort te verbeter. Dit sou

'n verbeterde positiewe sielkundige toestand by die werk tot gevolg kan hê, wat tot verhoogde werknemersbetrokkenheid kan lei. Daar word ook aangevoer that verhoogde EI ook ander positiewe organisatoriese uitkomst, soos organisatoriese toewyding en satisfaksie met werkslewe, positief sal affekteer. Gevolglik is 'n EI opleidingsprogram geïmplementeer en geëvalueer in 'n internasionale afleweringmaatskappy wat gebaseer is in Kaapstad, Suid Afrika.

'n Beheerde eksperimentele ontwerp (twee-groep voor- en natoetsontwerp) is gebruik in hierdie navorsing. Die EI opleidingsprogram is geëvalueer in terme van die effek op die EI, werknemerbetrokkenheid, organisatoriese toewyding en satisfaksie met werkslewe. 'n Tweede doel stelling van die studie was ook om die verwantskappe tussen die konstrunkte te ondersoek en vorige navorsing in die verband binne 'n Suid-Afrikaanse steekproef te reproduseer. Die totale steekproef het bestaan uit 35 permanent aangestelde werknemers. Drie assesserings het plaasgevind (een week voor die aanvang van die intervensie, direk na die afhandeling van die opleiding, en twee en 'n half maande daarna). Die bevindinge van die studie het beperkte empiriese bewyse verskaf vir die aanname dat EI opleiding wel EI vlakke kan bevorder. Alhoewel daar duidelike tendense was wat dit suggereer in die data, was die resultate nie statistiese beduidend nie. Die empiriese bewyse het verder slegs gedeeltelike en swak ondersteuning verskaf vir die aanname dat werknemerbetrokkenheid en satisfaksie met werkslewe verbeter het as gevolg van blootstelling aan die intervensie. Geen bewyse dat organisatoriese toewydingsvlakke verbeter het as gevolg van blootstelling aan die intervensie, is gevind nie. Gunstige resultate aangaande die verwagte verwantskappe tussen die konstrunkte in die studie is gevind. Positiewe, betekenisvolle verwantskappe tussen al die konstrunkte word gerapporteer. Die resultate van die studie behoort binne die konteks van die beperkinge wat vir hierdie studie geïdentifiseer is, interpreteer te word. Die resultate toon dat meer navorsing in hierdie domein benodig word.

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## CHAPTER 1

### INTRODUCTION

#### 1. INTRODUCTION

Generally organisations expect their employees to be proactive and show initiative, collaborate smoothly with others, take responsibility for their own professional development, and to be committed to high performance standards (Bakker & Schaufeli, 2008). For this reason, the type of employees required are those who feel energetic and dedicated, and should display an attitude of being absorbed in their work. According to this argument, Bakker and Schaufeli (2008) believe that organisations need more engaged workers if they are to gain a competitive advantage. According to Schaufeli, Salanova, Gonzalez-Roma and Bakker, (2002, p. 74), work engagement is defined as “a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication, and absorption.” Vigour is characterised by high levels of energy and mental resilience while working, the willingness to invest effort in one’s work, and persistence even in the face of difficulty. Dedication refers to being strongly involved in one’s work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge. Absorption is characterised by being fully concentrated and happily engrossed in one’s work, whereby time passes quickly and one has difficulties with detaching oneself from work (Schaufeli et al., 2002).

Engagement at work has emerged as a potentially important employee performance and organisational management topic (Simpson, 2009). A growing body of evidence supports the relationship between engagement of the employee at work and organisational outcomes, including those which are performance-based. Since the academic fraternity developed interest in the concept of employee engagement, several studies have indicated that work engagement has positive consequences at the individual and organisational levels (e.g. Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007). From a business perspective Harter, Schmidt, and Hayes (2002) showed that levels of employee engagement is indeed positively related to business-unit performance (i.e. customer satisfaction and loyalty, profitability, productivity, turnover and safety). Employee engagement has also been positively related to customer satisfaction (Salanova, Agut, & Peiro, 2005), in-role performance (Schaufeli, Taris,

& Bakker, 2006a), and financial returns (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). These empirical studies reflect the importance of employee engagement within organisations and its benefits to the individual and the bottom line of the respective companies or institutions they represent.

In a position paper by Bakker et al., (2008) the authors clearly outline what is known about employee engagement, as well as what is not known about the construct. It is known that work engagement is not the same as workaholism (Schaufeli et al., 2001); that job resources facilitate engagement (Bakker, 2004; Bakker & Demerouti, 2008; Mauno et al., 2007; Schaufeli & Hakanen et al., 2006; Schaufeli et al., 2008); job resources become salient in the face of high job demands (Bakker & Demerouti, 2007; Bakker et al., 2007; Hakanen et al., 2005); and that personal resources facilitate engagement (Hobfoll, Johnson, Ennis, & Jackson, 2003; Rothman & Storm, 2003; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2008). However, research on practical organisational interventions, aimed at increasing employee engagement, is scant.

Bakker, Schaufeli, Leiter, and Taris (2008) have noted that engaged workers also tend to be engaged outside their work life, which is an indication that engagement does not only stem from job resources, but from personal characteristics or resources as well. According to Hobfoll, Johnson, Ennis, and Jackson (2003) personal resources can be defined as the positive self-evaluations that are linked to resiliency and refer to individuals' sense of their ability to control and impact upon their environment successfully. Bakker and Demerouti (2008) confirmed that engaged employees often experience positive emotions and they further argued that this could be the reason why such employees actually perform better. Happy people are more sensitive to opportunities at work, more outgoing and helpful to others, and more confident and optimistic (Cropanzo & Wright as cited in Bakker & Demerouti, 2008). These positive emotions of happiness, optimism, high energy, and resiliency may all be linked to employee engagement components (vigour, dedication, and absorption) which are known to draw upon positive emotional and / or psychological states.

Moreover, the broaden-and-build theory of positive emotions (Fredrickson, 2001) postulates that positive emotions including joy, interest and contentment, all share the capacity to broaden people's momentary thought-action repertoires and build their personal resources (ranging from physical and intellectual resources to social and psychological). This would be achieved by widening the array of thoughts and actions that come to mind. Accordingly, positive affect produces a broad and flexible cognitive organisation, as well as the ability to integrate diverse material (Bakker & Demerouti, 2008). Fredrickson's research supports that positivity broadens one's spectrum of problem-solving skills, adaptive mechanisms, and thought-action repertoires while building inventories and buffers of intellectual, physical, social, and most importantly, psychological resources such as optimism, resilience, and goal orientation (Youssef & Luthans, 2007). This in turn can lead to upward spirals of performance, adaptation, and well-being, even when hardships are encountered. Fredrickson and Joiner (2002) provide both theoretical and empirical evidence that positive emotions trigger "upward spirals" of broader thinking, functioning, and well-being.

Maintaining positive emotional states are a key outcome of high Emotional Intelligence, a powerful personal psychological resource. Emotional intelligence (EI) refers to the capacity to deal effectively with one's own and others' emotions. When applied to the work environment, EI involves the capacity to effectively perceive, express, understand and manage emotions in a professional and effective manner at work (Palmer & Stough, 2001). EI entails an awareness component (emotional recognition and expression in self, as well as understanding the emotions of others) as well as a regulation component (emotional management and control). The latter is particularly important in the pursuit of maintaining positive emotional states which could trigger upward spirals of performance, adaptation and well-being. For the purpose of this particular study the Swinburne University Emotional Intelligence Test (SUEIT) as a theoretical framework for EI will be used.

The SUEIT has been designed to assess five key emotional competencies namely: (1) emotional recognition and expression – the ability to identify one's own feelings and emotional states and the ability to express those inner feelings to others; (2) understanding others' emotions – the ability to identify and understand the emotions of others and those that

manifest in response to workplace environments; (3) emotional direct cognition – the extent to which emotions and emotional knowledge are incorporated in decision-making and / or problem-solving; (4) emotional management – the ability to manage positive and negative emotions both within oneself and others; and (5) emotional control – the ability to effectively control strong emotional states experienced at work such as anger, stress, anxiety and frustration.

Based on the EI skills identified by Palmer and Stough (2001), it could be argued that if an employee was to maintain a high level of work engagement, they would need to have the ability to manage all aspects of their emotional experiences in order to ensure a positive emotional state, which would produce positive upward spirals of performance, according to the Broaden and Build theory (Fredrickson, 2001). However, an individual would not be able to achieve this positive emotional state if they are not able to, firstly, recognise and/or express their own feelings appropriately (the emotional recognition and expression component of EI). It can further be argued that if an employee is to maintain a positive attitude during times of difficulty at work, they would require the ability to effectively control strong emotional states such as anger, anxiety and frustration at work. This ability would fall into the emotional control dimension of EI. We could further illustrate the importance of EI and its impact on work engagement by proposing that emotional management is a key EI skill, needed to facilitate on-going positive emotions. Individuals high on emotional management have the ability to manage their negative emotions and not ruminate on them. Such individuals are generally more adept at maintaining an optimistic and positive disposition. They cope well with stress and actively implement solutions to maintain positive moods and emotions. Taking cognizance of these arguments it is hypothesised in this study that if an employees' EI is developed, this would have a positive impact on self-reported levels of work engagement, which according to previous research (Salanova, Agut, & Peiro, 2005; Schaufeli, Taris, & Bakker, 2006;; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009), should result in better work performance. Increased engagement should also have a positive effect on other workplace outcomes, such as organisational commitment (OC), which can be defined as the relative strength of an individual's identification with, an involvement in a particular organisation (Mowday, Steers, & Porter, 1979), and satisfaction with work life (SWWL), which can be defined as a cognitive, judgemental process in which individuals assess the

quality of their work lives on the basis of their own unique set of criteria (adapted from Diener, Emmons, Larsen, & Griffen, 1985). Previous studies have indicated that a positive association exist between engagement and OC (Carmeli, 2003; Hakanen, Bakker, & Schaufeli, 2006; Steyn, 2011; Vercina, Chacon, Sueiro, & Barron, 2012) and engagement and job satisfaction (Koynuncu, Burke & Fiksenbaum, 2006; Schaufeli & Bakker, 2004; Schaufeli, Bakker, & Van Rhenen, 2008). Although, a different construct to SWWL, job satisfaction can be considered a component of SWWL. For this reason, the current authors would argue that a positive association would exist between engagement and SWWL.

There is a mounting body of evidence which suggests that EI can be developed. In the first notable study Slaski and Cartwright (2003) found that the developmental EI training programme they conducted did result in significant increases in EI. Various other researchers supported these findings and found notable positive changes in their participants' level of EI (Dulewicz & Higgs, 2004; Fletcher, Leadbetter, Curran, & O'Sullivan, 2009; Gardner, 2005; Görgens-Ekermans, 2011; Nelis, Quoidbach, Mikolajczak, & Hansenne, 2009) after conducting EI training intervention studies. In all of these studies experimental group scores on the respective EI measures increased, whilst control group scores remained the same over the different assessment periods.

The primary aim of this study is to utilise a controlled experimental research design that incorporates an EI training intervention among line managers and other white collar workers within an organisation. The current researchers have hypothesised that by conducting the EI training intervention, which is aimed at developing employees' levels of EI, employees' would be better able to regulate their emotional day-to-day states at work. It is further hypothesised that an intervention of this nature should therefore result in increased levels of positive affect experiences at work, which should ultimately facilitate increased levels of work engagement, leading to improved organisational commitment and satisfaction with work life. Earlier studies using similar research methods have focused their attention on linking EI to negative psychological constructs like stress (Gardner, 2005) or burnout, and work-family conflict (Burger, 2009). What makes this particular study unique is the fact that the EI training programme will be used to enhance and strengthen positive psychological

resources in the workplace. It is expected that the EI intervention will help employees increase the frequency and intensity of their positive affect experiences at work, which should result in improved levels of employee engagement. It is furthermore argued that the contagion effect would apply (Cotton & Hart, 2003). Increased positive individual morale should influence the workgroup morale positively, which inevitably could create a healthier and more productive workplace environment which should impact positively on commitment and satisfaction.

A second aim of the current study is to replicate previous research on the inter-relationships between EI, work engagement, organisational commitment and satisfaction with work life in a South African sample. A well known study by Carmeli (2003) found that managers who reported a higher level of EI developed strong emotional attachments to their organisations and were also more committed to their career aspirations (organisational commitment) than their lower EI counterparts. In conjunction with this finding by Carmeli, it was also reported that higher levels of EI in managers lead to them being more satisfied in their work (satisfaction with work life). Various other authors found similar significant relationships between EI and organisational commitment (Nikolaou & Tsaousis, 2002; Gardner, 2005). Due to the nature of the current study, it was decided to use the construct of satisfaction with work life, which was adapted from the theoretical framework of the satisfaction with life scale. The satisfaction with work life construct offers a set of dynamic alternatives deemed as indicators of mental health related to work, signifying more active states and actions (Steyn, 2011) than the conventional instruments that measure job satisfaction. No notable studies have linked EI to satisfaction with work life, but empirical evidence has linked EI to job satisfaction (Burger, 2009; Sy et al., 2006; Wong & Law, 2002). Strong empirical evidence exists for the positive association between organisational commitment and job satisfaction (Gunlu, Aksarayli, & Percin, 2010).

In conclusion, the first unique contribution of this study is that the development of EI and its impact on employee engagement and the resultant positive consequences (e.g. organisational commitment and satisfaction with work life) will be investigated. A second unique

contribution is that no identifiable studies have linked EI with work engagement, making this part of the study investigative and exploratory in nature.



## CHAPTER 2

### THEORETICAL FRAMEWORK

#### 2.1 INTRODUCTION

In this chapter the relevant theory and current research findings relating to positive emotions, specifically the broaden-and-build theory, work engagement, job characteristics model, organisational commitment, satisfaction with work life and EI will be reviewed and discussed in detail. The aim of presenting the following literature is to explicate the theoretical rationale for the current study.

#### 2.2 THE RELEVANCE OF POSITIVE EMOTIONS

In 2003 a calculation by Schaufeli and Bakker (2003) revealed that 95% of all articles published up to that specific date in the *Journal of Occupational Health Psychology* deals with negative aspects of workers' health and well-being, such as occupational stress, cardiovascular disease, and burnout. In contrast, only 5% of the articles deal with positive aspects such as job satisfaction, motivation and engagement. Schaufeli and Bakker (2003) furthermore illustrated this disparity by noting that articles relating to negative states outnumbered the amount of positive articles by 17 to 1. Frederickson (1998), in her article "What good are positive emotions", points out that emotions in general evolved because they promoted specific actions in life-threatening circumstances and thereby increased the odds of the ancestors' survival. Models that were based on these specific action tendencies provided sound and compelling descriptions of the form and function of many negative emotions (Fredrickson, 1998). She furthermore argued that positive emotions do not typically arise in these life-threatening circumstances and do not seem to create well-defined urges to pursue a specific course of action. In her view, the existing emotion-general models hinder psychology's ability to capitalise on positive emotions in the workplace.

Since the beginning of the century, more attention has been paid to what is known as positive psychology which, according to Schaufeli and Bakker (2003), is the scientific study of human strength and optimal functioning. This approach is geared at supplementing the traditional

focus of psychology that is based on disease, illness, malfunctioning, psychopathology, and disturbance. According to Seligman and Csikszentmihalyi, (2000, p.5) the purpose of positive psychology “is to begin to catalyze a change in the focus of psychology from pre-occupation only with repairing the worst things in life to also building positive qualities” As a result of this recent trend, organisational psychology has begun to concentrate on the concept of optimal functioning which is evident in its recent plea for Positive Organisational Behaviour (POB). Luthans (2002) defines POB as “the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today’s organisations” (p.59). POB researchers are interested in peak performance in organisations and examine the conditions under which employees thrive (Bakker & Schaufeli, 2008). For the purpose of this study, the positive psychology construct of engagement will be linked to an EI intervention, to investigate whether the development of EI could have a positive impact on work engagement and, furthermore, improve other workplace outcomes such as organisational commitment and satisfaction with work life. In order to understand the utility of positive psychology and how higher EI (through maintaining increased positive affect) may enhance increased engagement, the Broaden-and-Build Theory of positive emotions will be discussed.

### **2.2.1 Broaden-and-Build Theory of Positive Emotions**

It has been long argued that negative emotions narrow individuals’ momentary thought-action repertoires by calling forth specific action tendencies (e.g. flight or fight) (Fredrickson, 1998; Garland, Fredrickson, Kring, Johnson, Meyer, Penn, 2010). As mentioned earlier, negative emotions are often taken as an evolved adaptation that aided the survival of human ancestors in circumstances that threatened life, limb, or social safety (Frijda, 1988). In her “*broaden-and-build theory of positive emotions*” Fredrickson (1998; 2001) states that positive emotions broaden individuals’ momentary thought-action repertoires, prompting them to pursue a wider range of thoughts and actions than is typical. These broadened thought-action repertoires gain significance because they can build a variety of personal resources which include: physical resources (e.g. physical skills or health); social resources (e.g. friendships or social support networks); intellectual resources (e.g. knowledge, theory of mind, intellectual complexity, executive control), and psychological resources (e.g. resilience, optimism,

creativity). According to Fredrickson and Branigan (2005) these personal resources, accrued during states of positive emotions, are durable as they outlast the momentary emotional states that led to their acquisition. Furthermore, the resources can function as reserves to be drawn on later, which help to improve coping and odds of survival.

To illustrate how positive emotions can broaden an individual's momentary thought-action repertoire, Fredrickson (1998; 2001) draws on discrete positive emotions namely; joy, interest, contentment, pride and love. Joy for instance, broadens by creating the urge to play, push the limits, and to be creative. According to Fredrickson these urges are evident not only in social and physical behaviour, but also in intellectual and artistic behaviour. Interest, a phenomenologically distinct positive emotion, broadens by creating the urge to explore, take in new information and experiences and expand the self in the process. Contentment, a third distinct positive emotion, creates the urge to sit back and savour current life circumstances, and integrate these circumstances into new views of self and the world. Pride, a fourth distinct positive emotion that follows personal achievements, broadens by creating an urge to share news of achievement with others and to envision even greater achievements in the future. Love, which is viewed as an amalgam of distinct positive emotions (e.g. joy, interest and contentment) experienced within contexts of safe, close relationships, broadens by creating recurring cycles of urges to play with, explore, and savour experiences with loved ones (Fredrickson, 2004). All these various thought-action tendencies; to play, to explore, or to savour and integrate, each represent ways that positive emotions broaden habitual modes of thinking or acting (Fredrickson, 1998; 2001; 2004). This theory subsequently provides the field with a new perspective on the evolved adaptive significance of positive emotions.

In Fredrickson's (2001) research, various beneficial links with positive emotions were discovered. More specifically her results supported the hypotheses that positive emotions (a) broaden people's thought-action repertoires (Fredrickson & Branigan, 2001; 2005), and (b) undo lingering negative emotions. Known as the "undo hypothesis" – the theory states that if negative emotions narrow the momentary thought-action repertoire, and positive emotions broaden this same repertoire, then positive emotions ought to function as efficient antidotes for the lingering effects of negative emotions (Fredrickson & Levenson, 1998; Fredrickson,

Mancuso, Branigan, & Tugade, 2000). Furthermore, it is known that (c) positive emotions fuel psychological resilience. According to Block and Kremen (as cited in Fredrickson, 2004) converging evidence suggests that resilient people have optimistic, zestful and energetic approaches to life, are curious and open to new experiences, and are characterised by high positive emotionality. Tugade and Fredrickson (2004), for example, found that positive emotions may fuel psychological resilience, build psychological resilience and trigger upward spirals toward enhanced emotional well-being. The theory makes a bolder prediction that experiences of positive emotions might also, over time, build psychological resilience and not just reflect it (Fredrickson, 2004). Furthermore, the complementary upward spiral which occurs through the experience of positive emotions and broaden thinking is argued to influence one another reciprocally, leading to substantial increases in emotional well-being over time (Fredrickson & Joiner, 2002; Fredrickson, 2004; Garland et al., 2010).

A recent study by Fredrickson and Losada (2005) illustrated the utility of positive emotions and the POB approach within organisations. They empirically validated that positive communication and expressions of support among team members clearly distinguished flourishing business teams. In their observational research with sixty teams, the authors identified fifteen teams that clearly produced better results (indicated by profitability, customer satisfaction, and 360 degree evaluations by superiors, peers and subordinates) based upon their speech acts. Positive speech was coded for encouragement, support, and appreciation, while negative speech was coded for disapproval, cynicism, and sarcasm. Sixteen teams with mixed verbal interactions had average performance, while nineteen teams with negative verbal interactions showed inferior performance.

The broaden-and-build effects of positive emotions accumulate and compound over time. Positive emotions carry the capacity to transform individuals for the better, making them healthier and more socially integrated, knowledgeable, effective and resilient (Fredrickson, 2001). Hence, positive emotions have the capacity to fuel human flourishing. According to Fredrickson and Lusada (2005) flourishing describes a state of optimal functioning, one that simultaneously implies growth and longevity, beauty and goodness, robustness and resilience, and generativity and complexity. Building on the positive psychology concept

with specific reference to the broaden-and-build theory of positive emotions, this study will focus on EI development and its impact on employees' positive emotions, with particular interest in the recently popularised construct of work engagement.

### **2.3 THE EMERGENCE OF WORK / EMPLOYEE ENGAGEMENT**

Over the last decade there has been a rapid increase in the interest regarding the concept of work engagement and its role in work performance and competitive advantage (Kular, Gatenby, Rees, Soan, & Truss as cited in Slatten & Mehmetoglu, 2011). Many interested authors agree (Macey & Schneider, 2008; Saks, 2005; Slatten & Mehmetoglu, 2011) that work engagement is a relatively new construct, one that has been heavily marketed by consulting organisations that offer advice on how to create and leverage the subject. Academic researchers, however, have been slowly joining the fray with some interesting findings. Harter, Schmidt and Hayes (2002) believe that organisations can learn a great deal about the management talents and practices that drive business outcomes if they studied their own top-scoring employee engagement business units. According to Saks (2005, p. 612) "employee engagement describes a new and emerging era". However, various authors (Robinson, Perryman, & Hayday, 2004; Saks, 2005; Slatten & Mehmetoglu, 2011) believe that more academic and empirical research is required for this topic that has become so popular.

Since the academic fraternity developed interest in the concept of employee engagement, several studies have indicated that work engagement has positive consequences at the individual and organisational levels (Bakker, Hakanen, Demerouti, & Xanthopoulou, 2007). A study by Bakker and Bal (2006), using 54 starting teachers and getting them to submit weekly diaries, found that daily levels of work engagement were predictive of classroom performance. In another study, Hakanen, Bakker, and Schaufeli (2006) confirmed that work engagement actually had predictive value for teachers' organisational commitment. From a business perspective Harter, Schmidt, and Hayes (2002) showed that levels of employee engagement was indeed positively related to business-unit performance (i.e. customer satisfaction and loyalty, profitability, productivity, turnover and safety). Employee

engagement has also been positively related to customer satisfaction (Salanova, Agut, & Peiro, 2005), in-role performance (Schaufeli, Taris, & Bakker, 2006), and financial returns (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). These empirical studies reflect the importance of employee engagement within organisations and its benefits to the individual and the bottom line for their respective companies or institutions.

According to Schaufeli, Taris, Le Blanc, Peeters, Bakker, and de Jong (2001) results from some in-depth structured interviews with Dutch employees from a variety of occupations revealed that engaged employees have high energy and self-efficacy. Engaged employees create their own positive feedback, in terms of appreciation, recognition, and success. They work long hours but lack the obsession to work that is characteristic for workaholics. People who are engaged in their work describe their tiredness as pleasant states because it is associated with positive accomplishments (Bakker & Demerouti, 2008). Finally, engaged employees were identified as individuals who do not neglect their social lives and they enjoy things in their lives other than work (Bakker et al., 2007). These findings were supported by research by Engelbrecht's (as cited in Bakker and Demerouti, 2008) qualitative research among Danish midwives. Here participants were asked to describe a highly engaged worker. Interviews revealed that an engaged midwife is a person who radiates energy and keeps up the spirit at the ward especially during difficult times. Engaged midwives also displayed positive attitudes towards their work and their love for their work was usually reflected in their passion with which they fulfilled their daily tasks (Bakker & Demerouti, 2008). Taking cognizance of the positive attributes associated with engaged employees, four different conceptual models have been identified to explain the construct's theoretical underpinnings.

### **2.3.1 Conceptualising Employee Engagement**

In a thorough review on engagement at work Simpson (2009) identified four distinct lines of research that has focussed on engagement within the employee work role. These included; (1) personal engagement (Kahn, 1990), (2) burnout/engagement (Maslach & Leiter, 1997; Leiter and Maslach, 2004), (3) work engagement (Schaufeli, Salanova, Gonzalez-Roma, & Bakker,

2002), and finally (4) employee engagement (Harter, Schmidt, & Hayes, 2002). In order to understand the evolution of the construct the various models will be briefly described.

### **2.3.1.1 Personal Engagement**

The first theoretical introduction to the concept of employee engagement was that of Kahn (1990). Drawing from the earlier work of Goffman (1961), Kahn developed the idea of employee engagement (Slatten & Mehmetoglu, 2011). Goffman suggested people's attachment to, and detachment from, their roles varies. He furthermore argued that individuals act out momentary attachments and detachments in role performances (Slatten & Mehmetoglu, 2011). Kahn (1990) focussed specifically on how people occupy their roles at work in varying degrees or how much people were psychologically present during particular moments of role performances at work. Kahn (1990) introduced the concepts of personal engagement and personal disengagement. He defined these concepts as "behaviours by which people bring in or leave out the personal selves during work role performances" (Kahn, 1990, p. 694). According to Kahn, personal engagement is described as the employing or expressing of oneself physically, cognitively, and emotionally during work role performances. Therefore, when an individual is identified as being engaged in their work, it is understood that they will be physically involved, cognitively vigilant, and emotionally connected (Kahn, 1990).

Kahn (1990) explored the conditions at work through which individuals personally engage and disengage and found that three psychological conditions (i.e. meaningfulness, safety and availability) impact on an individual's personal engagement and disengagement in their work. These included: (1) psychological meaningfulness – which is understood to be a feeling that one is receiving a return on investments of self-given efforts in their work role performances, (2) psychological safety – defined as a sense of being able to show and employ oneself without fear of negative consequences to one's self-image or status at work, (3) psychological availability – described as a sense of possessing the physical, emotional, and psychological resources needed for investing oneself in the work role. In 1992 Kahn (1992) revised his theory and argued that individuals who find meaning, feel safe, and has the necessary external and internal resources in their work role, will be personally engaged. Such an individual is "fully present" in their work role. Only one empirical study was associated with

Kahn's (1990; 1992) work. May, Gibson and Harter (2004) found that meaningfulness, safety, and availability had significant positive relations with engagement, with meaningfulness showing the strongest relationship.

### **2.3.1.2 Burnout / Engagement**

A contemporary model of work engagement was stimulated by research on burnout. Contrary to those who suffer from burnout, engaged employees have a sense of energetic and effective connection with their work. Instead of experiencing work as stressful and demanding they look upon their work as challenging (Bakker, Schaufeli, Leiter, & Taris, 2008). The approach assumes that engagement and burnout constitute the opposite poles of a continuum of work-related well-being, with burnout representing the negative pole and engagement the positive pole (Schaufeli & Bakker, 2003). According to Maslach and Leiter (1997) engagement is characterised by energy, involvement, and efficacy, the direct opposites of the three burnout dimensions. According to Leiter and Maslach (as cited in Simpson, 2009) burnout can be defined as a psychological syndrome characterised by exhaustion, cynicism, and inefficacy, which is experienced in response to chronic job stressors. Exhaustion (low energy), cynicism (low involvement), and inefficacy (low efficacy) are characteristic of burnout; whereas high energy, high involvement, and high efficacy are characteristic of engagement (Simpson, 2009).

Maslach and Leiter (1997) state that the opposite scoring pattern on the three aspects of burnout, as measured by the Maslach Burnout Inventory (MBI; Maslach, Jackson & Leiter, 1996) would imply work engagement. This means that low scores on the exhaustion and cynicism scales and high score on the professional efficacy scale of the MBI would be indicative of engagement (Schaufeli & Bakker, 2003). Acknowledging that engagement and burnout are experienced as opposite psychological states, Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002) argue that an employee who experiences low burnout may not be experiencing high engagement. Likewise, an employee who is highly engaged may not also be experiencing low burnout. It is through these considerations that Schaufeli et al. (2002) decided to operationalise work engagement separate from that of burnout.



### 2.3.1.3 Work Engagement

According to Schaufeli and Bakker (2003, p.5), work engagement is defined as “a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication, and absorption.” Instead of being a momentary and specific state, engagement refers to a more persistent and pervasive affective-cognitive state that is focused on any particular object, event, individual, or behaviour (Simpson, 2009). Vigour is characterised by high levels of energy and mental resilience while working, the willingness to invest effort in one’s work, and persistence even in the face of difficulty. Dedication refers to being strongly involved in one’s work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge. Absorption is characterised by being fully concentrated and happily engrossed in one’s work, whereby time passes quickly and one has difficulties with detaching oneself from work (Schaufeli et al., 2002). Vigour and dedication are considered direct opposites of exhaustion and cynicism, respectively. The continuum that includes vigour and exhaustion can be labelled energy or activation, whereas the continuum that includes dedication and cynicism can be labelled identification (Schaufeli & Bakker, 2003). The third component named absorption was identified by Schaufeli and Bakker (2001) as the next aspect of work engagement.

For the purpose of this study, it has been decided to use the conceptualisation of work engagement as proposed by Schaufeli et al. (2002). The Utrecht Work Engagement Scale (UWES), a self-report questionnaire first developed by Schaufeli and Bakker (2003) and further tested by Schaufeli, Bakker, and Salanova, (2006b) includes the three aspects of work engagement; vigour, dedication, and absorption. Slatten and Mehmetoglu (2011) argue that the UWES is both the most established and applied scale for measuring work engagement. Its measurement is therefore consistent with its defining characteristics, and consequently, its antecedents and consequences can be independently measured and identified (Simpson, 2009). Due to using this conceptualisation of work engagement an in-depth analysis of the process related to work engagement will be discussed in subsequent sections.

#### **2.3.1.4 Employee Engagement**

A final line of research associated with engagement at work can be found in the work of Harter et al. (2002; 2003). Researchers from the *Gallup* Organisation have conducted multiple investigations of successful employees, managers, and productive workgroups and these findings have led to the development of their employee engagement model (Simpson, 2009). Harter et al. (2002; 2003) refer to employee engagement as occurring when individuals are emotionally connected to others and cognitively vigilant. Employee engagement can therefore be defined as “the individual’s involvement and satisfaction, as well as enthusiasm for work” (Harter et al. 2002, p.69). According to these authors the *Gallup Workplace Audit* (GWA) which comprises of 12 items can be used to measure employee perceptions of work characteristics. Harter et al., (2003) identified four critical antecedents in order for engagement to occur. These included: (1) clarity of expectations and basic materials and equipment being provided; (2) feelings of contribution to the organisation; (3) feeling a sense of belonging to something beyond oneself; and (4) feeling as though there are opportunities to discuss progress and grow.

In conclusion, it is evident that the last three models of engagement all focus and include work-based antecedents of engagement. In the following section the Job Demands – Resources Model (JD-R) identifying the relevant antecedents and consequences of work engagement will be discussed. In this study the Schaufeli et al. (2002) definition of work engagement will be utilised, whilst the Job Demands – Resources Model (JD-R) will be discussed as a framework for this research.

#### **2.3.2 The Job Demands-Resource Model (JD-R) of work engagement**

In the article “towards a model of work engagement” by Bakker and Demerouti (2008) an overall model of work engagement was provided. In developing the JD-R of work engagement, Bakker and Demerouti (2007) drew on two major assumptions. Firstly, job resources, such as social support from colleagues and supervisors, performance feedback,

skill variety, and autonomy, start a motivational process that leads to work engagement, and consequently to higher performance. Secondly, job resources become more salient and gain their motivational potential when employees are confronted with high job demands. In order to understand the interaction between job resources, job demands, employee engagement and job performance the JD-R Model has been developed by Bakker and Demerouti (2007) (refer to figure 2.1). The model has subsequently been expanded by Xanthopoulou et al., (2007) where the authors have shown that job and personal resources are mutually related, and that personal resources can be independent predictors of work engagement. These findings could prove beneficial for the current study as it is argued here that EI (a powerful personal resource) development could possibly enhance work engagement and lead to improved levels of organisational commitment and satisfaction with work life. In order to understand the model a brief overview on each component will be discussed.

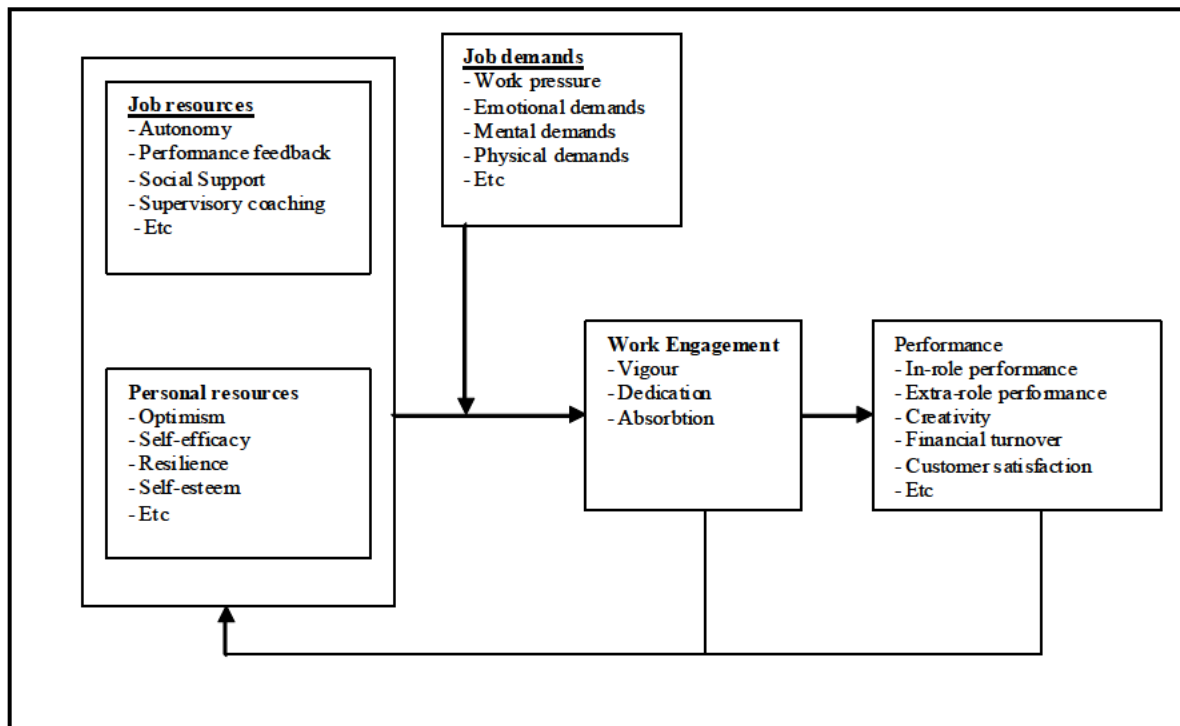


Figure 2.1: The JD-R Model of work engagement (sourced from Bakker & Demerouti, 2008).

### 2.3.3 Antecedents of Employee Engagement

#### 2.3.3.1 Job Resources

Job resources refer to those physical, social, or organisational aspects of the job that may: (1) reduce job demands and the associated physiological and psychological costs; (2) be functional in achieving work goals; or (3) stimulate personal growth, learning, and development (Bakker & Demerouti, 2007; Schaufeli & Bakker, 2004). Job resources are assumed to either play an intrinsic motivational role because they foster employees' growth, learning and development, or they play an extrinsic motivational role because they are instrumental in achieving work goals. In the former case, job resources fulfil basic human needs, such as needs for autonomy, relatedness and competence (Deci & Ryan, 1985; Ryan & Frederick, 1997). For example, proper feedback fosters learning, thereby increasing job competence, whereas decision latitude and social support satisfy the need for autonomy and the need to belong, respectively. According to Bakker and Demerouti (2008) the intrinsic motivational potential of job resources is also recognised by Hackman and Oldham's (1980) job characteristics theory. Job resources, according to their model, may also play an extrinsic motivational role, because work environments that offer many resources foster the willingness to dedicate one's efforts and abilities to the work task (Meijman & Mulder, 1998). In such environments it is likely that the task will be completed successfully and that the work goal will be attained. For example, supportive colleagues and performance feedback increase the likelihood of being successful in achieving one's work goals. In either case, be it through satisfaction of a basic need or through the achievement of a person's work goals, the outcome is bound to be positive and work engagement is likely to occur (Schaufeli & Bakker, 2004; Schaufeli & Salanova, 2007).

Various studies have found positive relationships between job resources and work engagement. Schaufeli and Bakker (2004) conducted a study with four different samples of Dutch employees. In their study they found evidence for a positive relationship between three distinct job resources (performance feedback, social support, and supervisory coaching) and work engagement (vigour, dedication and absorption). This same study was further replicated among 2000 Finnish teachers by Hakanen, Bakker and Schaufeli (2006). The results revealed that job control, information, supervisory support, innovative climate and social climate were all positively related to work engagement. In a study by Koyuncu, Burke and Fiksenbaum (2006), who examined the potential antecedents and consequences of work engagement in a sample of female managers and professionals employed by a prominent Turkish bank, similar

supportive evidence were obtained. Results confirmed that out of the six areas of work life identified by Maslach and Leiter (1997), job control, rewards and recognition, and value fit were significant predictors of all three engagement measures. Two specific longitudinal research studies also confirmed the positive relationship between job resources and work engagement. In the first study Mauno, Kinnunen, and Ruokolainen (2007) used a two year longitudinal design to investigate work engagement and its antecedents among Finnish health care staff. It was found that job resources predicted work engagement better than job demands. In the other study Schaufeli, Bakker and Van Rhenen (2008) focused on a Dutch telecom company concentrating on managers and executives. Their results showed that changes in job resources were predictive of engagement over a one year period. The results further revealed that increases in social support, autonomy, opportunities to learn and to develop, and performance feedback were positive predictors of T2 work engagement after controlling for baseline engagement (Schauflei et al., 2008).

### **2.3.3.2 Job resources become salient in the face of high job demands**

According to Hobfoll (2001) individuals seek to obtain, retain, and protect things they value. These include things like material, social, personal or energetic resources. Hobfoll (2001) furthermore argues that stress experienced by people can be understood in relation to potential or actual loss of resources. In an earlier study by Hobfoll and Shirom (2000) the following arguments regarding job resources were made: (a) that individuals must bring in resources in order to prevent the loss of resources; (b) that individuals with a greater pool of resources are less susceptible to resource loss; (c) that those individuals who do not have access to strong resource pools are more likely to experience increased loss; and finally (d) a strong resource pool leads to a greater likelihood that individuals will seek opportunities to risk resources for increased resource gains. In 2002, Hobfoll expanded on his work and further argued that resource gain acquires its saliency in the context of resource loss. In other words, this suggests that job resources become more salient and gain their motivational potential when employees are confronted with high job demands (e.g. workload, emotional demands, and mental demands) because they assist with goal accomplishment (Hobfoll, 2002).

Two studies were identified that tested these interaction hypotheses. The first study conducted by Hakanen, Bakker and Demerouti (2005) concentrated on a sample of Finnish dentists in the public sector. The authors hypothesised that job resources (i.e. variability in the required professional skills, peer contacts) would be most beneficial in maintaining work engagement under conditions of high job demands (i.e. workload, unfavourable physical environment). The participants were divided into random groups in order to cross-validate the findings. Through hierarchical regression analysis the results revealed seventeen out of forty significant interactions (40%). An example was that variability in professional skills improved work engagement when qualitative workload was high, and therefore it mitigated the negative effect of qualitative workload on work engagement (Bakker & Demerouti, 2008; Bakker et al., 2008). Bakker, Hakanen, Demerouti, and Xanthopoulou (2007) supported these findings through their study among Finnish teachers working in elementary, secondary, and vocational schools. These authors discovered that job resources would act as buffers and weaken the negative relationship between pupil misbehaviour and work engagement. Furthermore, the results showed that job resources particularly influenced work engagement when teachers were confronted with high levels of pupil misconduct. By using structural equation modelling analysis the results revealed that fourteen out of eighteen possible two-way interaction effects were statistically significant (Bakker & Demerouti, 2008; Bakker et al., 2008). These two empirical studies support the premise that job resources become more salient and gain motivational potential when employees are confronted with high job demands.

### **2.3.3.3 Personal Resources**

According to Hobfoll, Johnson, Ennis, and Jackson (2003) personal resources can be defined as the positive self-evaluations that are linked to resiliency and refer to individuals' sense of their ability to control and impact upon their environment successfully. In a review by Judge, Van Vianen, and De Pater (2004) it has been confirmed that such positive self-evaluations predicts goal-setting, motivation, performance, job and life satisfaction, and other desirable outcomes. Judge, Bono, Erez and Locke (as cited in Bakker et al., 2008) believe that the reason could be due to the fact that certain individuals have a larger pool of personal resources and therefore have a better self-regard and more goal self-concordance. According

to Luthans and Youssef (as cited in Bakker et al., 2008) individuals with goal self-concordance are intrinsically motivated to achieve their goals, and this as a result leads to better performance and satisfaction with work and life.

Various studies have been conducted to investigate the relationship between personal resources and work engagement. In a cross-sectional study among 1910 South African police officers Rothman and Storm (2003) found that engaged police officers use an active coping style. The authors also identified engaged employees as problem-focused and saw them as taking active steps to attempt to remove or rearrange the stressors they were experiencing. Bakker, Gierveld, and Van Rijswijk (as cited in Bakker et al., 2008) conducted a study among female school principals and found that those with the most personal resources scored highest on work engagement. The results revealed that resilience, self-efficacy, and optimism contributed to work engagement, and were able to explain unique variance in engagement scores in addition to social support from team members and principals, opportunities for development, and social support from an intimate partner.

In another study, using highly skilled Dutch technicians, Xanthopoulou, Bakker, Demerouti, and Schaufeli (2007) examined the role of three personal resources (self-efficacy, organisational based self-esteem, and optimism) in predicting work engagement. The results revealed the engaged workers are highly self-efficacious; they believe they are able to meet the demands they face in a broad array of contexts. Furthermore, engaged workers were found to have the tendency to believe that they generally experience good outcomes in life (optimism), and believe they can satisfy their needs by participating in roles within the organisation (organisation based self-esteem). In a two year follow up study Xanthopoulou, Bakker, Demerouti, and Schaufeli (2008) found supporting evidence for these findings. The results of this study confirmed that self-efficacy, organisational based self-esteem, and optimism made a unique contribution to explaining variance in work engagement over time and above the impact of job resources and previous levels of engagement. Accordingly Bakker et al., (2008) argue that these personal resources appear to help engaged workers to control and impact upon their work environment successfully.

In the current study, it is argued that EI is a unique personal resource that has not been previously studied as a personal resource in relation with work engagement. Given the increase in coping and/or resilience which will be created by higher EI regulation abilities<sup>1</sup> [when more positive affect is experienced, according to Fredrickson's Broad-and-Build (BB) theory] this should be a personal resource which could be particularly important to enhance work engagement. Therefore, the aim of the current study is to develop EI, which includes the EI regulation component (i.e. emotional management and emotional control), as this could ultimately assist employees in building their positive emotional personal resources. It is further proposed that an increase in work engagement levels, possibly resulting from higher EI, could have a positive impact on employees' levels of organisational commitment and satisfaction with work life.

#### **2.3.4 Consequences / outcomes of Work Engagement**

A fair amount of studies have found that work engagement is positively related to job performance. Bakker, Demerouti, and Verbeke (2004) showed that engaged employees received higher ratings from their colleagues on in-role and extra-role performance, indicating that engaged employees perform well and are willing to go the extra mile. Using Dutch employees from a variety of occupations Schaufeli, Taris, and Bakker (2006a) found a positive relation between work engagement and in-role performance ( $r = 0.37$ ), whereas workaholism was not related to in-role performance. In another study, Salanova, Agut, and Peiro (2005) studied employees working in Spanish restaurants and hotels. Participants provided information about organisational resources, work engagement, and service climate. Customers were asked to provide information regarding employee performance and customer loyalty. Utilising structural equation modelling, the analysis was found to be consistent with a full mediation model in which organisational resources and work engagement predicted service climate, which in turn predicted employee performance and then customer loyalty.

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<sup>1</sup> Many research studies attest to the buffering capability of EI in the stressor / strain relationship (e.g. Brand, 2006; Gørgens-Ekermans & Brand, 2012; Burger, 2009). More specifically, the inverse relationship between EI and stress (e.g. Gardner, 2005; Landa, López-Zafra, Martos, Aguilar-Luzon, 2008; Slaski, & Cartwright, 2002), and EI and burnout (e.g. Mikolajczak, Menil, & Luminet, 2007) is well established.



Saks (2006) conducted a survey that was completed by 102 employees working in a variety of jobs and organisations. The study separated work engagement into job and organisational engagement. The results showed that job and organisation engagement mediated the relationships between the antecedents and job satisfaction, organisational commitment, intentions to quit, and organisational citizenship behaviour. This study revealed how work engagement is linked to other positive organisational outcomes. Xanthopoulou, Bakker, Heuven, Demerouti, and Schaufeli (2008) conducted a study on work engagement among flight attendants. They investigated the motivational process of work engagement and its consequences on job performance. The results confirmed that work engagement mediated the relationship between self-efficacy and (in—role and extra-role) performance. The results further demonstrated that peer support, as a job resource, predicted positive support in reaching organisational goals.

More recent research by Xanthopoulou, Bakker, Demerouti, and Schaufeli (2009) investigated how daily fluctuations in job resources (autonomy, coaching, and team climate) are related to employees' level of personal resources (self-efficacy, self-esteem, and optimism), work engagement and financial returns. The results revealed that day-level coaching had a positive relationship with day-level work engagement, which in turn, predicted daily financial returns. Further results revealed that when employees are immersed in their work and focused on their customers (i.e. engaged), they have a higher probability to bring in profit, than when they just believe that they are capable to serve their customers adequately (i.e. self-efficacy). In their study of 54 Dutch teachers Bakker and Bal (2010) tested a model of weekly engagement. The authors hypothesised that teachers' weekly job resources were positively related to their week-levels of work-engagement, and that week-level work engagement is predictive of week-level performance. Using multi-level analysis the results confirmed the hypothesis, by showing that week-levels of autonomy, exchange with the supervisor, and opportunities for development were positively related to weekly engagement, which in turn, was positively related to weekly job performance. In the most recent study Slatten and Mehmetoglu (2011) focused on the antecedents and effects of engaged frontline employees. Their findings show that employee engagement is closely linked to employees' innovative behaviour. The results further revealed that perceptions of role benefit, job autonomy, and strategic attention were all significantly related to greater

employee engagement. In this study by Slatten and Mehmetoglu (2011) the value of having an engaged frontline workforce was revealed.

### **2.3.5 Increasing Work Engagement, Organisational Commitment and Satisfaction With Work Life through developing EI**

Bakker and Demerouti (2008) identified four reasons why engaged workers perform better than non-engaged workers. According to them engaged employees: (1) often experience positive emotions, including happiness, joy and enthusiasm; (2) experience better psychological and physical health – various researchers have found that engagement is positively related to health and that in turn would lead to better performance (Hakanen et al., 2006; Schaufeli & Bakker, 2004); (3) have the ability to mobilise their own resources; and that (4) they can transfer their engagement to others. In order to illustrate the positive emotions (facilitated by higher EI) link with engagement and how this might impact on organisational commitment and satisfaction with work life, the assumptions regarding the link between these variables will be discussed in more detail.

#### **2.3.5.1 Positive Emotions**

Recent research by Schaufeli and Van Rhenen (as cited in Bakker & Demerouti, 2008) confirmed that engaged employees often experience positive emotions and they further argue that this could be the reason why they actually perform better. Happy people are more sensitive to opportunities at work, more outgoing and helpful to others, and more confident and optimistic (Cropanzo & Wright, as cited in Bakker & Demerouti, 2008). Linking this with the broaden-and-build theory of positive emotions, it is noted that Fredrickson (2001) postulate that positive emotions (including joy, interest and contentment), all share the capacity to broaden people's momentary thought-action repertoires and build their personal resources (ranging from physical and intellectual resources to social and psychological). This would be achieved by widening the array of thoughts and actions that come to mind. Accordingly, positive affect produces a broad and flexible cognitive organisation as well as the ability to integrate diverse material (Bakker & Demerouti, 2008). For example, from a business perspective Fredrickson and Losada (2005) showed that when the ratio of managers'

positive to negative emotions are relatively high during business meetings, they often ask more questions, and their range between questioning and advocacy is broader, resulting in better performance. Hence, in this research it is argued that when EI is developed, this should facilitate better emotional regulation and result in a higher frequency and intensity of experienced positive emotions in the workplace. It is further argued, based on the Fredrickson and Losada (2005) results, that such increased / sustained episodes of positive affect should, over time, result in other positive organisational outcomes. To this end, an empirical study by Carmeli (2003) regarding the relationship between EI and work attitudes, behaviour and outcomes revealed that individuals with higher EI scores develop positive work attitudes, behaviour and outcomes. This would suggest that increased EI should, over time, result in more positive work attitudes and other positive outcomes, such as organisational commitment and satisfaction with work life.

#### **2.3.5.2 Ability to mobilise resources**

Bakker and Demerouti (2008) believe that a major contributor as to why engaged employees are able to perform better is because of their ability to create their own resources. According to Fredrickson's (2001) broaden-and-build theory, momentary experiences of positive emotions can build enduring psychological resources and trigger upward spirals toward emotional well-being. According to Fredrickson and Joiner (2002) positive emotions not only make people feel good in the moment, but they also allow people to feel good in the future. In the study with highly skilled Dutch technicians Xanthopoulou et al. (2007) showed that T1 job and personal resources resulted in higher levels of work engagement one year later (at T2 testing). Simultaneously, work engagement resulted in more personal resources (optimism, self-efficacy, and organisation based self-esteem) and more job resources (social support from colleagues, autonomy, coaching, and feedback) over time. These findings suggest that in comparison with non-engaged workers, engaged employees are better able to mobilise their resources that in turn fuel engagement, which in turn should lead to better performance at work.

In an attempt to extend this research into the EI / engagement domain, it should be noted that several studies have shown that higher EI facilitates / mobilise increased use of adaptive coping resources. In a study by Furnell (2008) EI was found to be positively related to an increase in personal accomplishment (i.e. decreased burnout). Moreover, emotional management (a dimension of EI) emerged as the strongest predictor of increased personal accomplishment in this study. In a recent study by Görgens-Ekermans and Brand (2012) strong empirical evidence for the buffering capability of EI in the stress – burnout relationship, in a sample of nurses, was reported. In Gardner's (2005) study, four dimensions of EI were particularly important in the occupational stress process: emotional recognition and expression, understanding emotions, emotional management and emotional control. It was concluded that utilising EI was related to the experience of occupational stress and to the outcomes of occupational stress (both health and attitudes), so much so, that employees who reported higher EI were less likely to report feelings of stress, ill-health and lowered satisfaction and commitment. Moreover, when EI was developed (as a personal resource) over a 10 week period, Gardner (2005) showed that a simultaneous decrease in stress and reported strain resulted. This result has been replicated on two South African student samples (Görgens – Ekermans, 2011). This suggests that increased EI, over time, would allow individuals to respond constructively to stressors in the workplace, which could decrease the negative long term effects of the stress on the individual. In this research it is subsequently argued that EI development should also positively influence work engagement through the increased personal resources that heightened EI creates in the individual. These heightened levels of engagement should, furthermore, result in increased organisational commitment and satisfaction with work life which should ultimately improve job performance (although this study did not include an empirical investigation of the effects of the EI intervention on job performance).

### **2.3.5.3 Crossover of engagement**

Performance is the result of the combined effort of individual employees. Bakker and Demerouti (2008) therefore suggest that crossover of engagement among members of the same work team increases performance. Crossover or emotional contagion can be defined as the transfer of positive (or negative) experiences from one person to another (Westman as

cited in Bakker & Demerouti, 2008). The theory suggests that if employees influence each other with work engagement, they may perform better as a team. In an interesting study by Bakker, Gierveld and Van Rijswijk (as cited in Bakker and Demerouti, 2008) it was reported that team-level work engagement was related to individual team members' engagement (vigour, dedication, and absorption) of 2229 officers working in 85 teams. This result was evident even after controlling for individual member job demands and resources. The finding further suggests that engaged workers who communicate their optimism, positive attitudes and pro-active behaviour to their colleagues, create a positive team climate, independent of the demands and resources they were exposed to. These findings support the view that engaged workers influence their colleagues, and consequently, perform better as a team. Emotional management (a component of EI in the SUEIT EI model) could be of particular importance in creating and maintaining a positive work climate, which could lead to increased engagement. Emotional management refers to the ability to manage negative emotions and not ruminate on them. Individuals high on emotional management are more adept at maintaining optimistic and positive dispositions. Emotional management could also be applied to positively influence the emotional states of other individuals. Individuals that have the capability to manage their own, and other's emotions, help create environments that make other people feel optimistic and positive. Such individuals also have the ability to help others identify more effective ways of responding to events that cause them adversity. Given that it is known that individual morale (i.e. positive affect) influences work group morale (Cotton & Hart, 2003), the effects of increased EI in employees in terms of a positive work climate, is obvious. This emotional contagion effect should positively influence employee engagement, and result in increased individual, but also team, performance. It is further argued that by increasing levels of work engagement, various other positive workplace outcomes will also improve. In this study, the focus is on organisational commitment and satisfaction with work life, which will be discussed next.

## **2.4 ORGANISATIONAL COMMITMENT**

Organisational Commitment (OC) is a core variable in management / organisational studies, but definitions, constructs and methods remain diverse and contested (Lok, Westwood, & Crawford, 2005). Commitment has been examined under many names over the years:

teamwork and loyalty (Festinger et al., 1950), equilibrium (Roethlisberger & Dickson, 1943), willingness and cooperation (as cited in Shagholi, Zabihi, Atefi, & Moayedi, 2011). Since these early conceptualisations, a review of the literature reveals that there are at least four different approaches to conceptualising OC. Many human resource managers / organisational psychologists today consider it vital to develop and maintain a workforce that is highly committed to the organisation (Burger, 2009). OC will be investigated in this study as a positive workplace outcome possibly resulting from higher engagement levels, facilitated by the display of better emotional regulation and expression skills as encapsulated by EI.

#### **2.4.1 Conceptualising Organisational Commitment**

The first approach to conceptualise OC was by Becker (1960) and was known as the Side-Bet Theory. According to Shaholi et al. (2011) this initial theory was used extensively in research studies on OC. Side-bets refer to anything of importance that the employee has invested, such as time, effort or money that would be lost or devalued at some cost to the employee, if he or she left the organisation (Wallace, as cited in Shagholi et al., 2011). According to Reichers (1985) side-bets theory views commitment as the function of the rewards and costs associated with organisational membership. It was further argued that these factors typically increased as tenure in the organisation increased. The second approach was the attribution perspective that defined commitment as a binding of the individual to behavioural acts that result when individuals attribute an attitude of commitment to themselves after engaging in behaviours that are volitional, explicit, and irrevocable (Reichers, 1985). Salancik (1977) reasoned that behaviours that are explicit (undeniable), irrevocable, volitional, and public would lead the individual to behaviour and would result in greater commitment.

More recently, Allen and Meyer (1996) defined OC as a psychological link between an employee and his/her organisation that makes it less likely that the employee will voluntarily leave the organisation. In conceptualising the OC construct, Meyer and Allen (1997) developed a three component model of commitment. The three separate psychological states, namely affective commitment (emotional attachment to the organisation), continuance commitment (recognition of the costs associated with leaving the organisation) and normative

commitment (the perceived obligation to remain with the organisation), make up the construct of OC. Since Meyer and Allen's (1997) componential model, the issue of using single or multi-component conceptualisations became a debate (Lok et al., 2005). According to Mathieu and Zajac (1990) and Randall (as cited in Lok et al., 2005) single component studies remain the most prevalent. For example, the conceptualisation and measure (the Organisational Commitment Questionnaire; OCQ) developed by Mowday and colleagues (Mowday, Steers, & Porter, 1979) continues to be a widely used and accepted approach. For the purpose of the current study this approach will be utilised. According to this theory, OC can be defined as the relative strength of an individual's identification with, and involvement in, a particular organisation (Mowday et al., 1979). Mowday et al. (1979) believe that when commitment is defined in this particular fashion, then it is something beyond passive loyalty to an organisation. It involves an active relationship with the organisation, such that employees' are willing to give something of themselves in order to contribute to the organisation's well-being.

#### **2.4.2 Organisational Commitment and EI**

One of the first notable studies investigating the relationship between EI and OC was Nikolaou and Tsaousis (2002) who studied the effects of EI on occupational stress and OC. The results revealed that employees who scored higher on EI also scored higher on OC. This positive correlation suggested a new role for EI as a determinant of employee loyalty to organisations. The authors furthermore argued that a reason for this could be due to the fact that employees higher in EI have the capacity to feel more valued and less distressed in their positions, which increase their feelings of loyalty and commitment both from, and to their organisation. In support of these findings, the Gardner (2005) study that investigated EI and the well-being in teachers also found a significant positive correlation between EI and OC. The study utilised the SUEIT (Palmer & Stough, 2001) and the OCQ (Mowday et al., 1979) as measurement instruments. The results revealed that employees, who reported higher levels of emotional management (the ability to manage their own emotions and the emotions of others), also reported more feelings of commitment to their organisation. Various other authors (Burger, 2009; Carmeli, 2003; Guleryuz, Guney, Aydin, Asan, 2008) also found similar results. It could therefore be argued that employees with higher levels of EI will be

more committed to their organisation because they have a positive emotional attachment to their organisation.

### **2.4.3 Work Engagement and Organisational Commitment**

In a notable study that distinguishes these two constructs, namely work engagement and organisational commitment, Hallberg and Schaufeli (2006) investigated whether work engagement could be empirically separated from job involvement and organisational commitment. Through using a sample of Information Communication Technology Consultants ( $n = 186$ ) and various statistical processes such as latent intercorrelations, confirmatory factor analyses, and patterns of correlations between variables, Hallberg and Schaufeli (2006) found that work engagement, job involvement and organisational commitment were empirically distinct constructs and thus, reflect different aspects of work attachment. In support of these findings, Kanste (2011) found that work engagement can be discriminated from work commitment. Gathering data from healthcare staff working in fourteen health centres and four hospitals in Finland, the results revealed that the two variables are distinct yet related constructs that complement each other, describing different aspects of positive attitudes towards work.

Hakanen, Bakker, and Schaufeli (2006) used the Job Demands-Resources Model as a basis for their proposal that there are two parallel processes involved in work-related well-being among 2034 Finnish teachers, namely an energetical process (i.e. job demands, burnout or ill health) and a motivational process (i.e. job resources, engagement and organisational commitment). In their study, it was confirmed that work engagement actually had predictive value for teachers' organisational commitment. In a more recent study, Vecina, Chacon, Sueiro, and Barron (2012) examined the concept of work engagement in samples of volunteers from different non-profit organisations. In this study, they investigated the relationship between engagement, volunteer satisfaction, and intention to remain in a sample of new volunteers and the relationship between engagement, organisational commitment, and intention to remain in a sample of veteran volunteers. In their structural model it was revealed



that engagement reinforces the participant's commitment to the organisation, while organisational commitment predicted intention to continue working at the organisation.

## **2.5 SATISFACTION WITH WORK LIFE**

The workplace is a significant part of an individual's life that affects his or her life and ultimately the well-being of their respective communities (Harter, Schmidt, & Keys, 2003). The average adult spends a third of his or her waking life at work. According to Campbell, Converse, and Rodgers (1976), as cited in Harter et al., (2003), as much as a fifth to a quarter of the variation in adult life satisfaction can be accounted for by satisfaction with work.

### **2.5.1 Conceptualising satisfaction with work life**

An area in positive psychology analyses subjective well-being (SWB), people's cognitive and affective evaluations of their lives. The structure of psychological well-being, which is commonly referred to as subjective well-being has received little empirical investigation in the work related literature (Hart, 1999). The current consensus among quality of life researchers is that psychological well being or SWB includes both affective and cognitive components. According to Watson (1988), the affective component is characterised by the two broad dimensions of positive and negative affect. Pavot and Diener (1993) argue that the affective and cognitive components of SWB are not completely independent; however, the two components are somewhat distinctive and can provide complementary information when assessed separately. The cognitive component according to Pavot and Diener (1993) is associated with life satisfaction and satisfaction with various life domains. Edwards (as cited in Hart, 1999) states that job satisfaction has sometimes been equated with positive affect and according to him a growing number of work-related studies have called this view into question and support the quality of life literature. Warr (1987) also argued that the job satisfaction domain is a relatively reactive measure of SWB since most instruments used to evaluate it only capture the extent to which pleasure or discontent is experienced on the job. The theoretical framework for life satisfaction when applied to the workplace would offer a dynamic set of alternatives which can be deemed as indicators of psychological health in the workplace. The outcomes therefore would signify more active states and actions than the

conventional measures, such as job satisfaction. As a result of the arguments mentioned above, the current study will adopt the theoretical framework of life satisfaction and apply it to a measure of work life satisfaction.

The subjective definition of quality of life is democratic in that it grants each individual the right to decide whether his or her life is worthwhile (Diener, 2000). It is this approach to defining a good life that has been termed subjective well-being (SWB). SWB refers to people's evaluations of their lives. These evaluations are both affective and cognitive. According to Diener (2000), people experience abundant SWB when they feel many pleasant and few unpleasant emotions (which may be facilitated by better EI, and more specifically, emotional management), when they are engaged in interesting activities, when they experience many pleasures and few pains, and when they are satisfied with their lives.

Life satisfaction refers to a cognitive, judgemental process, in which individuals assess the quality of their lives on the basis of their own unique set of criteria (Shin & Johnson, 1978). Judgements of satisfaction are dependent upon a comparison of one's circumstances with what is thought to be an appropriate standard (Diener, Emmons, Larsen, & Griffen, 1985). Pavot and Diener (1993) argue that the degree to which these conditions match their standards will determine their level of life satisfaction. Diener et al. (1985) state that although there is some common consensus on what constitutes "a good life," such as good health and successful relationships, hence individuals are likely to assign different weights to these components. It is also likely that individuals will have the own unique criteria for a good life, which in some cases might outweigh the common benchmarks in importance. Furthermore, individuals may indicate different standards for success for each area in their life. Therefore according to Pavot and Diener (1993) it is necessary to assess an individual's global judgement of his or her life rather than only his or her satisfaction with specific domains. Based on this theoretical underpinning, Diener et al. (1985) developed the satisfaction with life scale which incorporates items that are global rather than specific in nature, allowing respondents to weigh domains of their lives in terms of their own values, in arriving at a global judgement of life satisfaction. Diener and colleagues (1985) furthermore believed that there should be a degree of convergence between life satisfaction and emotional well-being

because both depend on evaluative appraisals. In this study the theoretical framework of life satisfaction will be adapted to measure satisfaction with work life. It is then argued that there would be a positive association between emotional intelligence and satisfaction with work life, as EI is known to facilitate better psychological health (e.g. Schutte et al., 2007; Martins et al., 2010). Building on Diener's concept of SWB which is an area of positive psychology, it is proposed that individuals who report an abundance of SWB normally experience many pleasant emotions and few unpleasant emotions. Hence, it is argued that by developing an individual's ability to regulate their emotions (i.e. emotional management and emotional control) an employee should be better able to regulate their positive and negative emotions, leading to a more positive emotional state, ultimately facilitating the creation of more satisfaction with one's work life.

### **2.5.2 Satisfaction with work life and EI**

No notable studies have empirically linked satisfaction with work life (SWWL) and EI; however various scientific studies have linked EI to life satisfaction, which has an identical theoretical framework to the SWWL construct utilised in this study. Palmer, Donaldson and Stough (2002) were some of the first authors to examine the relationship between EI and life satisfaction. EI was assessed in 107 participants selected from a general community, using a modified version of the Trait Meta-Mood Scale (Salovey, Mayer, Goldman, Turvey, & Palfai, 1995). Life satisfaction was assessed using the satisfaction with life scale (SWLS) (Diener et al., 1985). The findings provided support for the notion that EI accounts for individual differences in life satisfaction. One specific component of EI, namely Clarity (of emotions), was found to add a statistically significant increase (approximately 5.5%) in the prediction of life satisfaction over and above both positive and negative affect. Palmer et al. (2002) furthermore provided preliminary empirical evidence that EI, more specifically how clearly individuals tend to experience their emotions, accounts for further variance in the concept of being satisfied with one's life.

In support of the Palmer et al., (2002) study, Extremera and Fernandez-Berrocal (2005) investigated the association between Perceived Emotional Intelligence (PEI), measured by

the Trait Meta-Mood Scale (TMMS, Salovey et al., 1995), and life satisfaction measured by the satisfaction with life scale (SWLS) (Diener et al., 1985) in Spanish undergraduate university students. They furthermore investigated whether PEI would account for variance in satisfaction with life beyond the level attributable to mood states and personality traits. Through correlation analysis the results revealed significant associations between Clarity and Repair (sub-dimensions of the TMMS) and higher life satisfaction. By conducting regression analysis the findings indicated that Clarity accounted for further variance in life satisfaction not accounted for by mood states and personality traits. In other words, Clarity (i.e. how clearly individuals tend to experience their emotions) contributed unique variance in satisfaction with life independently from well-known mood state constructs and personality traits.

Gannon and Ranzijn (2004) hypothesised in their study that EI would explain unique variance in life satisfaction beyond that predicted by personality, IQ, and various control variables included in their study. EI was measured using the Swinburne University Emotional Intelligence Test (SUIET) (Palmer & Stough, 2001) and life satisfaction was measured using the SWLS (Diener et al., 1985). The results found that personality explained a substantial amount of variance in life satisfaction after controlling for income and marital status. EI accounted for a small amount of unique variance in life satisfaction beyond personality and demographic variables. Furthermore, the additional variance explained by total EI was also found to be significant, although very small. When further analysis was conducted with the EI subscale dimensions it was discovered that significant variance was added to the prediction of life satisfaction beyond personality more specifically by the emotional management sub-dimension. These results suggested that higher scores on emotional management are linked with higher levels of life satisfaction. It was therefore concluded that as a general ability, EI contributes to subjective life satisfaction. Building on the Palmer et al. (2002) study, the final notable study was conducted by Gignac (2006) where structural equation modelling was used for the purpose of modelling a general EI factor as a potential incrementally predictive predictor of life satisfaction. Positive affect (PA) and Negative affect (NA) was also investigated. The results of the study indicated that a general EI latent variable existed within the inter-correlated EI subscales of the TMMS. Furthermore the latent general EI variable exhibited some incremental predictive validity independent of PA and NA (sub-

dimensions of the TMMS), as a predictor of self-reported SWLS. These empirical results support the premise that EI is a notable predictor of life satisfaction and for this reason it is argued that an association between satisfaction with work life (as defined within this study within the theoretical framework of life satisfaction) and EI could reasonably be expected.

### **2.5.3 Organisational Commitment and Satisfaction with Work Life**

Steyn (2011) proposed a salutogenic model of occupational well-being drawing on the positive organisational scholarship (POS) paradigm and incorporated different POS variables (optimism, self-efficacy, and meaning, operationalised as engagement and organisational commitment, psychological health and satisfaction with work-life) believed to directly, or indirectly affect occupational well-being. In order to develop the model, the study hypothesised various significant relationships, including that a significant positive relationship exists between organisational commitment (a component of meaningfulness) and satisfaction with work life (a component of occupational well-being). The results showed a substantial positive relationship between the variables of organisational commitment and satisfaction with work life ( $r = .606$ ; Steyn, 2011) which suggests that employees who are highly committed to their organisations are more likely to be satisfied with their work life in general.

### **2.5.4 Satisfaction with Work Life and Work Engagement**

It was furthermore hypothesised in Steyn's (2011) study that significant positive relationships would exist between engagement (a component of meaningfulness) and satisfaction with work life (a component of occupational well-being). Using a sample of 202 individuals employed in various occupations across three separate institutions across South Africa, it was found that there were substantial positive relations between the satisfaction with work life scale (total score) and each of the work engagement subscales. More specifically, the results revealed moderate to strong correlations between vigour and satisfaction with work life ( $r = .534$ ) and dedication and satisfaction with work life ( $r = .603$ ), whilst a weak but significant relationship was evident between absorption and satisfaction with work life ( $r = .355$ ). These findings suggest that the more engaged employees become the more they are inclined to be

satisfied with their work life. Some further empirical evidence exists substantiating this positive relationship between engagement and satisfaction (Koynuncu, Burke, & Fiksenbaum, 2006; Schaufeli & Bakker, 2004). For example, Schaufeli et al. (2008) reported evidence that all three components of work engagement (vigour, dedication and absorption) were positively correlated with satisfaction while the opposite was discovered between burnout and satisfaction.

## **2.6 EMOTIONAL INTELLIGENCE**

### **2.6.1 Background**

The Stoics of Ancient Greece believed that logic was superior to feelings because people could agree to rational arguments but often disagreed with regards to their feelings (Mayer, Roberts, & Barsade, 2008). Within this Stoic philosophy, the wise person admitted to no emotion or feeling but instead used a process of self-control until all that was left was rationality and logic (Mayer, Salovey, & Caruso, 2000). In the eighteenth century the world experienced the European Romantic Movement which saw many writers, painters and other artists express emotional rebellion towards rigid rational rules. Closer to recent times was the emotional expressiveness of the 1960's in North America and Europe which saw a major emotional rebellion against the forces of rationalism. According to Mayer et al. (2000) it was also the time that many of our present day researchers of emotion and intellect came of age.

### **2.6.2 The emergence of emotional intelligence (EI)**

The notion that there are different types of intelligence has been a part of the intelligence field almost since its inception (Mayer & Salovey, 1990). Edward Thorndike in 1920 was the first individual to talk about "Social Intelligence" (Sparrow & Knight, 2008) and defined the term as the ability to understand men and women, boys and girls and to act wisely in human relations (Mayer & Salovey, 1990). In 1940, David Weschler, the father of IQ (general intelligence), discussed the idea of there being non-intellective aspects to intelligence. Leuner (1966) was then the first individual to link EI to psychotherapy treatments. In 1974, Claude Steiner published an article on emotional literacy followed by some ground-breaking work by

Howard Gardner in 1983 who published a study on multiple intelligences. Gardner's concepts of interpersonal intelligence (the ability to understand other individuals' emotions and intentions) and intrapersonal intelligence (the ability to know one's own emotions) is widely regarded as the basis for conceptualising EI.

According to Sparrow and Knight (2008), Wayne Payne in 1986 used the phrase "emotional intelligence" in an unpublished thesis. However, it was the work by Peter Salovey and Jack Mayer in 1990 that produced the first theory on EI. The EI concept was then made popular through Daniel Goleman's book published in 1995. The construct has since evolved and has been given much attention by academics (Gohm, 2004; Mathews, Roberts, & Zeidner, 2004; Mayer & Salovey, 1993; 1995; 1997; Mayer, Salovey, & Caruso, 2000), and popular press publications alike (Goleman, 1995; 1998). There has also been a notable increase in academic research. With regards to the conceptualisation and operationalisation of the EI concept, there has been much academic debate (e.g. Brody, 2004; Davies, Stankov, & Roberts, 1998; Mathews et al., 2004; Mayer, Roberts, & Barsade, 2008).

According to Dulewicz and Higgs (2000) a deeper knowledge of EI could help account for variance in success criteria, both in educational and organisational contexts, not accounted for by cognitive intelligence. In her doctoral thesis, Ekermans (2009) argued that apart from motivation, cognition and perception, emotions can be viewed as one of the basic functions of the human psyche and that with the introduction of the EI construct, emotions are rapidly permeating the domain of work and organisational psychology. Further to this Mathews, Zeidner, and Roberts (2002) suggest that EI is a key construct in modern-day psychological research. Goleman (1998) believes that EI can be seen as the underlying factor to interpersonal effectiveness in the workplace. He furthermore argues that it could be a useful contributor to our understanding of such variables as effective networking, communication, negotiating, performance and motivating. More recent research has focused on the role of EI in the workplace and its effect on organisational and individual outcomes (Carmeli & Josman, 2006; Carmeli, Yitzhak-Halevy, Weisberg, 2007; Zeidner, Mathews, & Roberts, 2004).

Over the last two decades the construct of EI has certainly developed not without much scepticism and debate; however it continues to grow in popularity as a result of favourable empirical evidence of its usefulness, especially in the organisational setting. As a result various models and measures have been developed, providing the psychological field alternative ways to conceptualise and measure the construct. Reasons for the diversity in models of EI could be attributed to the range of psychological variables they have decided to include; namely from traditional personality traits like assertiveness and flexibility to mental abilities that combine skills from multiple EI areas (Mayer, Roberts & Barsade, 2008). These different models and measures of EI have resulted in practitioners and researchers debating about the construct of EI and how to best measure it. In the article “Seven Myths about Emotional Intelligence”, Matthews et al. (2004), identified three problematic areas for these various conceptualisations. Firstly, the causal status of EI as an influence on behaviour as defined through these different conceptualisations is often unclear. Secondly, most theories assume that EI generalises across qualitatively different kinds of events and challenges (e.g. somebody who can handle anger is also capable of handling fear), which may not be the case. Finally, most models of EI assume that it can be assessed via declarative knowledge (that people can directly report on the qualities that constitute EI and that they can describe emotional stimuli and how they would react). Gohm (2004) argues that the field may benefit from investigating different construct conceptualisations and suggests that it might be too early to agree on a consensual definition. Gohm furthermore argues that other concepts in psychology like self-concept, extraversion and openness do not have consensus on their definitions, but are nevertheless useful constructs.



## **2.6.3 Conceptualising Emotional Intelligence (EI)**

### **2.6.3.1 Two Types of EI Models**

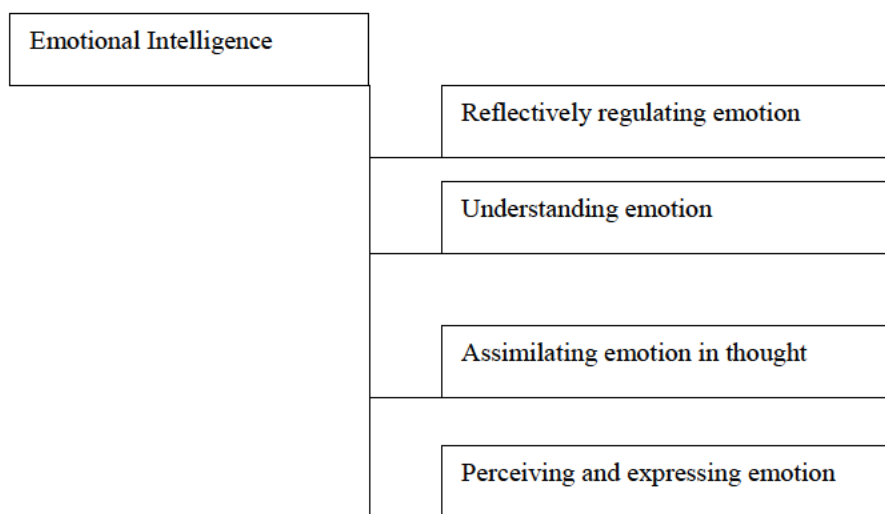
Over the last decade, two conceptions of EI have coexisted, the ability EI perspective – which uses performance-based measures of EI; and the trait EI perspective – which uses self-report measures of EI (Petrides & Furnham, 2001). On the one hand ability models define EI as an intelligence, where emotion and thought act together in meaningful and adaptive ways (Mayer & Salovey, 1997). In this approach, EI has been conceptualised as a set of mental abilities which has to do with emotions and processing of information that are a part of, and contributes to intelligence (Palmer, Gardner & Stough, 2003). Furthermore, this type of EI is best assessed using performance measures similar to IQ tests (Mikolajczak, Roy, Verstrynge, & Luminet, 2009).

Contrary to the ability models, the trait EI perspective refers to a constellation of emotion-related self-perceptions and dispositions located at the lower levels of personality hierarchies (Petrides, Perez-Gonzalez, & Furnham, 2007). The trait EI construct aims at gathering under the same umbrella the key affect-related personality facets. It therefore encompasses two kinds of variance; one portion of variance is as mentioned before scattered across the lower levels of established personality taxonomies (e.g. giant three; big five) and a portion of variance that lies outside these dimensions (Mikolajczak et al., 2009). The two conceptual frameworks mentioned here are best reflected by the two paramount approaches to the assessment of EI; namely performance-based versus self-report measures. In the following section, three well developed and popular conceptualisations of EI will be presented.

### **2.6.3.2 Mayer and Salovey's Ability Model**

The first authors to provide a theoretical framework for EI were Salovey and Mayer (1990). Their initial model described the construct of EI as the ability to understand emotions in the self and others, and to use these feelings as informational guides for solving problems and regulating behaviour (Salovey & Mayer, 1990). Furthermore, the original theory postulated that the mental processes involving emotional information include three components; the

appraisal and expression of emotion, regulation of emotion and adaptive use of emotions. One of the major building blocks of the theory is that it had a strong cognitive emphasis and its aim was to distinguish EI abilities from personality and social traits. According to Gardner (2005), the initial framework did include some personality traits (EI was hypothesised to distinguish between warm and genuine individuals) therefore Mayer and Salovey (1997) revised the model to give greater emphasis to the cognitive components of EI and to highlight the potential for emotional and intellectual growth. Based on empirical studies Mayer and Salovey (1997) refined the original conceptualisation of EI to include four distinct dimensions listed in figure 2.2 below.



**Figure 2.2: A four-branch model of the skills involved in emotional intelligence (Mayer & Salovey, 1997).**

Adapted from Mayer and Salovey (1997) the four branches are identified as follows: branch 1: perceiving and expressing emotion (the ability to accurately identify emotions and emotional content); branch 2: assimilating emotion in thought (the ability to describe emotional events that assist intellectual processing); branch 3: understanding emotion (the ability to recognise, label and interpret emotions), and branch 4: reflectively regulating emotion (the conscious, reflective regulation of emotions to enhance growth). The revised model is ordered hierarchically from basic psychological processes to more psychologically integrated processes. Each of the stages presented in figure 2.2 includes levels of abilities which an individual completes in sequence before progressing to the next stage. It is believed

that individuals with higher levels of EI progress through these abilities much quicker than those with lower levels of EI.

### **2.6.3.3 Goleman's Competency Based Model**

In Goleman's (1995, p. 34) published book on *Emotional Intelligence* which popularised the construct in the public arena, he defines EI "as the ability to motivate oneself and persist in the face of frustrations; to control impulse and delay gratification; to regulate one's moods and keep distress from swamping the ability to think; to empathise and to hope." Goleman believes that EI represents all the positive qualities that general intelligence (IQ) does not (Matthews et al., 2004). In Goleman's (1998, p. 317) published book *Working with Emotional Intelligence* he revised his definition and referred to EI as "the capacity for recognising our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships."

Goleman's (1998) model expanded the original definition by Mayer and Salovey (1997) by incorporating personal and social competencies. His earlier model consisted of five dimensions of EI and twenty-five emotional competencies. The dimensions included: self-awareness, self-regulation and motivation under personal competencies and empathy and social skills under social competencies. Goleman's model significantly differs from Mayer and Salovey's (1997) ability model. Goleman (1995; 1998) places a strong emphasis on EI and its application in the workplace. He further revised his model after statistical analysis reduced his initial twenty-five emotional competencies to twenty, and the initial five domains to four dimensions. Goleman's (2001) revised competency based model is illustrated in table 2.1 below.

**Table 2.1: Goleman's (2001) Model of Emotional Intelligence**

EI Dimension	Emotional Competencies
<b>Personal Competencies:</b>	
1. Self-awareness	Emotional awareness, accurate self-assessment, and self-confidence
2. Self-management	Self-control, trustworthiness, conscientiousness, adaptability, achievement drive and initiative
<b>Social Competencies:</b>	
3. Social awareness	Empathy, service orientation and organisational awareness
4. Relationship management	Developing others, influence, communication, conflict management, leadership, change catalyst, building bonds, teamwork and collaboration

According to Boyatzis, Goleman and Rhee (2000) the four dimensions can be described as follows: self-awareness - the ability to understand one's emotions and their effects as well as knowing one's internal states, preferences and intuitions; self-management - the ability to manage one's internal states, resources and impulses; social awareness - the ability to sense, understand and react to others' emotions while comprehending social networks; and relationship management - the ability to inspire, influence and develop others, so as to induce desirable responses. One of the major limitations of Goleman's model is that it incorporates a combination of personality traits, abilities and emotional traits (for example the model includes attributes like conscientiousness, achievement drive and trustworthiness). This has certainly raised concerns for academics regarding the measurement properties of the model. Many scholars have also criticised Goleman for propagating linkages between EI and workplace variables (like success, satisfaction and leadership) without providing substantiated empirical evidence for these associations. For example, Goleman has claimed that 73% of the abilities identified for the superior performance in a job can be attributed to emotional competencies (Goleman, 1998, p.31). It is claims such as this that have had the academic fraternity up in arms regarding Goleman's theory. The danger of such an exaggerated claim is that the public or general practitioners could believe such a statement without it having been scientifically proven. However, some recent empirical studies have provided some evidence for the utility of his theory (Carmeli & Josman, 2006; McQueen, 2003; Zeidner, Matthews & Roberts, 2004).

### 2.6.3.4 Bar-On's Non-Cognitive Model of EI

An important contribution to the construct of EI was that of Bar-On (1997) who was the first author to use the term EQ (emotional quotient). According to this model, EI has been defined as an “array of non-cognitive capabilities, competencies, and skills that influence one’s ability to succeed in coping with environmental demands and pressures” (Bar-On, 1997, p.14). The model incorporates five EI dimensions, namely; intrapersonal skills, interpersonal skills, adaptability, stress management and general mood. The limitation to Bar-On’s (1997) model is that the EI competencies overlap theoretically with measures of personality (Gardner, 2005). This inclusiveness has been criticised by scholars (Mayer & Salovey, 1997; Matthews et al., 2004; Mayer et al., 2000) and has been labelled as a trait or mixed model approach. Mayer and Salovey (1997) have argued that the construct of EI may only be useful if it is theoretically and empirically separated from the personality processes and confined to a mental ability assessing the interrelatedness of cognitions and emotions. Mayer, Caruso, and Salovey (2000) further suggest that these particular models need careful analysis to distinguish the concepts that are a part of EI from concepts that are mixed in, or confounded with it. Table 2.2 presents the theoretical framework for the Bar-On (1997) model.

**Table 2.2: Bar-On’s (1997) Non-Cognitive Model of EI**

<b>EI Dimension</b>	<b>Emotional Competencies</b>
1. Intrapersonal skills	Being aware of and understanding oneself and one’s emotions, expressing one’s feelings and ideas.
2. Interpersonal skills	Being aware of, understanding and appreciating other’s feelings, establishing and maintaining satisfying relationships with others
3. Adaptability	Verifying feelings with external cues, sizing up immediate situations, being flexible in altering feelings and thoughts with changing situations and problem-solving.
4. Stress management	Coping with stress and controlling impulses.
5. General mood	Being optimistic and being able to feel and express positive emotions.

### 2.6.4 Measuring Emotional Intelligence (EI)

As a result of the various conceptualisations of EI, researchers and test designers have developed many different measurement tools that favour their preferred school of thought.

For the purpose of this study, four widely used and empirically tested measures of EI will be discussed, with specific reference to its applicability in the workplace. The first measure to be reviewed is the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), which is the only performance-based EI measure. The following two measures are the popular Bar-On Emotional Quotient Inventory, EQ-I (Bar-On 1997) and a more recent measure based on the trait EI perspective, the Trait Emotional Intelligence Questionnaire (TEIQue), developed by Petrides and Furnham (2003). Both of these measures are self-report measures. The final measure, which will be reviewed in chapter 3 (as it was utilised in this study), is the Swinburne University Emotional Intelligence Test (SUEIT), developed by Palmer and Stough (2001). This measure was developed from a large scale study which involved a factor analysis of the main measures of EI, extracting the underlying common dimensions from each of the measures (Palmer & Stough, 2001).

#### **2.6.4.1 Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT)**

The first tests of EI consisted of self-report scales like the LEAS (Levels of Emotional Awareness Scale) developed by Lane et al. (1990), which asked people to rate themselves on a number of characteristics. Within this approach, according to Salovey and Grewal (2005), two issues had to be considered: first, are people sufficiently aware of their own emotional abilities to report on them accurately? A second issue is whether the people actually respond truthfully instead of reporting in a social desirable manner. To address these problematic areas, ability tests such as the Multi-factor Emotional Intelligence Scale (MEIS) developed by Mayer, Caruso, and Salovey (1999) and the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) were constructed (Mayer, Salovey, Sitarenios, & Caruso, 2003). These tests were operationalised as performance-based measures, similar to IQ tests. These measures are viewed as a requisite for EI to assume the status of a legitimate cognitive ability. The MSCEIT was the successor to the MEIS and was specifically developed to improve in three areas; scoring, reliability and factor structure (Burger, 2009). In a study by Palmer, Gignac, Manocha, and Stough (2005) the MSCEIT's psychometric properties were revealed to be significantly better than that of the MEIS. The MSCEIT to date has been revised to the MSCEIT V2.0 (Mayer, Salovey, Caruso, & Sitarenios, 2003). According to

these authors, the MSCEIT has achieved reasonable reliability, and confirmatory factor analysis results support this theoretical model of EI.

The MSCEIT is a 294 item measure that has eight tasks: two to measure each of the four branches of EI. Mayer, Salovey and Caruso (2004) describe the measure as follows: branch 1, perceiving emotions, is measured through (a) faces, for which participants are asked to identify the emotions in faces and (b) pictures, for which participants are asked to identify the emotions conveyed by landscapes and designs. Branch 2, using emotions to facilitate thought, is measured by (c) sensations, for which participants compare emotions to other tactile and sensory stimuli and (d) facilitation, for which participants identify the emotions that would best facilitate a type of thinking. Branch 3, understanding emotions, is measured through (e) changes, which tests a person's ability to know under what circumstance emotional intensity lessens and increases and how one emotional state changes into another and (f) blends, which asks participants to identify the emotions that are involved in more complex affective states. Branch 4, managing emotions, is measured through (g) emotion management, which involves presenting participants with hypothetical scenarios and asking how they would maintain or change their feelings and (h) emotion relationships, which involves asking participants how to manage others feelings so that a desired outcome is achieved (Mayer et al., 2004).

These measures utilise consensus and expert scoring (Gardner, 2005). According to Matthews et al. (2002) these scoring methods have been subject to criticism. For example, the consensus scoring techniques are in contrast to traditional measures of intelligence where an objective measure of truth is considered. Secondly, with regard to the expert scoring, how were the experts that determined the 'correct' answers, selected? Van Rooy and Viswesvaran (2004) argue that ability based measures have been shown to be distinct from personality and have higher correlations with general mental ability in comparison to the self-report measures. However, they do provide less incremental prediction of work criteria than self report measures.

In linking the MSCEIT to organisational outcome variables, a study by Mueller and Curhan (2007) examined a group of U.S. negotiators, all students in a Master of Business Administration programme. They found that higher MSCEIT scores on the Understanding branch predicted that one's negotiating partner would feel more positively about his/her outcome ( $r = 0.23$ ), even after controlling for the partner's positive affect and how much emotional understanding the negotiation partner received. This particular study concludes by suggesting that the creation of positive affect by people with high EI may be especially important because it can spread among groups through emotional contagion.

Lopes, Cote, Grewal, Kadis, Gall, and Salovey (2006) examined the workplace performance of a sample of 44 analysts and administrative employees from a financial department of a U.S. based insurance company. After controlling for relevant personality and demographic variables, MSCEIT total EI correlated  $r = 0.28$  to  $0.45$  with company rank, higher merit increases, peer and supervisor rated sociability, and rated contribution to a positive work environment. Janovics and Christiansen (as cited in Zeidner et al. 2004) also found that EI (as measured by the MSCEIT) correlated moderately with job performance.

#### **2.6.4.2 Bar-On Emotional Quotient Inventory, EQ-i**

One of the more well known EI measures is the EQ-i (Bar-On, 1997) which falls under the umbrella of self-report EI measurement tools. Its aim is to assess emotionally and socially competent behaviour (Bar-On, 2000). The popularity of the measure is illustrated in the list of extensive translations thereof (i.e. 29 languages; Ekermans, Saklofske, Austin, & Stough, 2011). The measure which is based on the theoretical framework identifies 15 determinants of positive psychological well-being and healthy emotional functioning. These are now defined as the 15 components of the model (Bar-On, 2000). Furthermore, the EQ-i scale consists of 133 items that assess the 15 sub-scales pertaining to the five dimensions of emotional and social intelligence. These include; (1) Intrapersonal, (2) Interpersonal, (3) Stress Management, (4) Adaptability, and (5) General Mood. According to McCrae (as cited in Gardner, 2005), the EQ-i was constructed from a review of personality variables proposed to be related to life success. In the interesting study by Ekermans et al. (2011) the invariance



of the EQ-i: S measurement model (the short version of the EQ-i) over various cross national samples was investigated. The results revealed that self-reported EI (as measured by the EQ-i: S) is configured similarly over different cultural groups and that the EQ-i: S scores represent the same construct over the cultural groups included in the study (i.e. South Africa, Australia, Scotland and Canada). Dawda and Hart's (2000) study results also suggest that the EQ-i is a promising measure for emotional intelligence.

The main critique regarding the EQ-i is the discriminant validity of the test from measures of personality. For example, Dawda and Hart (2000) found considerable overlap between the EQ-i and personality. These authors reported that the total EQ-i score correlated moderately to strong with the NEO Five Factor Inventory. In support of this, Newsome, Day, and Catano (2000) reported moderate to strong correlations between the five personality factors of the 16PF (Cattell et al., 1970) and the five EQ-i composite scores. The highest correlation in this study was between the total EQ scale score and the Anxiety factor of the 16PF ( $r = -0.77$ ) from which the researchers deduced that the EQ-i is largely a measure of personality. Grubb and McDaniel (2007) concur by arguing that measures of EI need to show divergent validity from other constructs before the construct of EI can be viewed as credible. In this particular study by Grubb and McDaniel (2007) the EQ-i: S was found to be very redundant with the Big Five.

The measure has been applied to various settings including the workplace environment. In a study by Bachman, Stein, Campbell, and Sitarenios (2000) EI was examined in 36 debt collectors as a predictor of job performance. Performance was assessed by the cash goal attained over a specific time frame and participants were grouped into two groups namely, consistently high producers and consistently low producers. The overall score for high producers was 110 and for the low group it was 102. The average total score according to the EQ-i manual is 100, meaning both groups were above average. This study reflected the utility of EI in the workplace. Many other studies based on the Bar-On's EQ-i support the validity of EI in the workplace.

For example, Dulewicz and Higgs (2000) reanalysed data from a seven-year study of the career progress of 58 managers in the UK and Ireland assessing three domains of self-report ability: EQ, IQ, and managerial competency. EI was found to contribute to the prediction of the job advancement criteria above and beyond managerial EI and self-reported intellectual performance, adding about 36% incremental variance to the prediction of level of advancement over a seven-year period. Furthermore, Bar-On (as cited in Zeidner et al. 2004) conducted a study on a sample of 81 chronically unemployed individuals. These individuals had unusually low EQ-i scores, with the lowest scores on Assertiveness, Reality Testing, and Happiness. In contrast he found that individuals from the *Young Presidents Organisation* obtained scores on the EQ-i exceeding the average by significant amounts. According to Bar-On, this group's success was dependent on their ability to be very independent and to assert their individuality, while being able to withstand various stressors occurring within the job.

#### **2.6.4.3 Trait Emotional Intelligence Questionnaire (TEIQue)**

The Trait Emotional Intelligence Questionnaire (TEIQue) is a broadly defined comprehensive measure that covers all facets of trait EI as postulated by the Petrides and Furnham (2001) framework. The measure consists of four compound scales that encompass 15 sub-scales: (a) well being: happiness, optimism, and self-esteem; (b) self-control: control/emotion regulation, stress management, and impulsiveness (low); (c) emotionality: emotion expression, empathy, emotion perception (self and others) and relationship skills; and (d) sociability: social competence, assertiveness and emotion management (others). It was developed by Petrides and Furnham (2003) as a trait EI measure (Petrides et al, 2007). Research on the TEIQue has provided empirical evidence of criterion and incremental validity for this trait EI conceptualisation (Mikolajczak, Luminet, Leroy, & Roy, 2007; Petrides, et al., 2007).

A few studies found trait EI to be a significant moderator of the impact of both natural and laboratory stressors. In applied settings, Mikolajczak, Luminet, and Menil (2006) found that students with higher trait EI scores displayed a lesser increase in psychological symptoms and somatic complaints during exams than their lower trait EI counterparts. In support of this

view, Mikolajczak, Menil, and Luminet (2007) found that nurses with higher trait EI scores reported lower levels of burnout and somatic complaints in response to their stressful occupation than nurses with lower scores. Various studies exploring the processes through which high trait EI individuals achieved such better stress resistance have focussed on two distinct mechanisms namely, appraisals and coping. The first set of studies showed that high EI individuals tend to appraise stressful situations as a challenge whereas their low EI counterparts tend to appraise them as a threat (Mikolajczak et al., 2006; Mikolajczak & Luminet, 2008). In focussing on the coping mechanism, a second set of studies illustrated how individuals with high trait EI report making greater use of adaptive rather than maladaptive coping strategies (Petrides, Perez-Gonzalez, & Furnham, 2007; Petrides, Pita, & Kokkinaki, 2007).

### **2.6.5 Developing Emotional Intelligence**

Gardner (2005) and many other researchers believe that the next exciting phase in EI research is to empirically establish whether EI can reliably be developed. With regards to the organisational setting, understanding how EI can be developed may be a significant first step for organisations to develop effective EI training programmes (Wong, Foo, Wang, & Wong, 2007). In the study by Wong et al. (2007) the aim was to do an exploratory study of theories in human development in order to argue that life experiences affect EI development. The results of this study indicated that a large amount of variance in EI were left unexplained for after controlling for parental EI and the Big-Five personality dimensions, which should have reflected largely the nature (i.e. genetic) effects on EI. For the nurture (i.e. environmental) effects, having a full-time parent was found to be positively related to the university students' EI. The authors further argue that large nurture (i.e. environmental) effects do enhance one's EI level. The authors concluded that it is therefore worthwhile for researchers to identify other experiences that may lead to the development of EI and use these experiences to design effective EI training programmes. According to Dulewicz and Higgs (2004) there is emerging consensus that EI can be developed, but with differing views to what extent it can be developed.

One of the first notable published articles that focussed on developing and evaluating an EI training programme in the workplace was by Slaski and Cartwright (2003). These researchers reported empirical evidence to suggest that EI training improves employee health and well-being. The insightful study gained momentum after the authors' initial study where they investigated the relationship between a measure of EI, subjective stress, distress, general health, morale, quality of working life and management performance (Slaski & Cartwright, 2002). The results revealed that managers who scored higher in EI suffered less subjective stress, experienced better health and well-being, and demonstrated better management performance. It was through these findings that Slaski and Cartwright hypothesized that EI training may be an effective technique for improving stress resilience.

In Slaski and Cartwright's (2003) study a sample of 60 UK managers were given training in EI. Pre and post measures were taken relating to EI, stress and health and management performance. The study also incorporated a matched control group. Managers who took part in the training programme attended the programme for 1 day per week for a total of 4 days. There was a 1 week interval between sessions to enable the participants to practice their learning from each session. Sessions were limited to groups of 12; therefore, five separate programmes were run to accommodate the experimental group. Most of the intervention strategies were focussed on developing self-awareness and detachment. The authors theorised that increasing self-awareness within an employee would aid them in detaching themselves from events and they would be able to regulate their emotions to prevent them from becoming immersed in and carried away by their emotional responses at work. The results revealed that the developmental EI training programme did result in statistically significant increases in EI scores in the experimental group. Control group scores for EI remained constant. There was also a significant effect on the measures of health and well-being and these effects were further substantiated by qualitative data that was collected.

Dulewicz and Higgs (2004) reviewed three studies in order to explore the extent to which EI is responsive to development. In each study, measures of EI were taken before a specific EI training intervention or event and then again after a period following the intervention or event. The two EI measures utilised in these studies were the Emotional Intelligence

Questionnaire (EIQ, Dulewicz & Higgs, 2000) and the Bar-On EQ-i (Bar-On, 1997). In the first study using a retail company, they found a statistically significant improvement both on the EIQ total score, and on five of the seven sub-dimensions. Improvements were found on self-awareness, interpersonal sensitivity, influence, motivation, and emotional resilience. The second study involved team leaders in an organisation. No difference was found in the overall EIQ score or on six of the elements, but conscientiousness did show a significant difference (0.01 level), with scores improving over time. Further analysis revealed that the experimental group's conscientiousness improved significantly while the control group did not. The third study focussed on a round the world yacht race which covered a period of 10 months. When analysing the results separating the top four crews from the bottom four crews, interesting results were found. Sensitivity and influence, which are sub-dimensions on the EIQ, decreased for the bottom four crews, but remained the same for the top four. However, the top four crews' intuitiveness increased, while it decreased for the bottom four. These findings relating to the three studies are in support of Slaski and Cartwright's (2003) results that EI training can enhance total EI scores.

In her doctoral dissertation Gardner (2005) conducted two studies. In the first study, she administered an EI questionnaire to 320 employees to examine the link between EI and occupational stress. After the positive findings in this regard, the rationale for an EI developmental training programme was presented. In her second study Gardner (2005) developed, implemented and evaluated an EI training programme which had an emphasis on stress management. 79 teachers participated in the study with only 55 submitting complete data sets. Baseline measures were taken at two time intervals prior to participation in the EI training programme. Participants were also assessed immediately after participation in the programme and at a five-week follow-up interval. The findings revealed that the training programme improved levels of EI (statistically significant results were obtained) in the experimental group, whilst control group scores stayed the same; it furthermore helped to decrease feelings of stress and strain and also improved the outcomes of stress. The changes were evident immediately after the programme and were maintained (or improved upon) at the follow-up time period.

Following upon this research, a recent South African study used a controlled experimental research design to evaluate an EI and Stress Management intervention with a group of post-graduate university students (Görgens-Ekermans, 2011). The experimental group (n=23) received a weekly three hour group training session over five weeks. Control group participants (n=27) received no intervention. The experimental group showed significant increased levels of total EI (as well as for four of the five dimensions, measured with the Swinburne University Emotional Intelligence Test, SUEIT, Palmer & Stough, 2001) at the post programme testing. A 6 month follow-up revealed that these changes were persistent. The results further revealed a significant drop in self-reported stress (Perceived Stress Scale, Cohen, Kamarck, & Mermelstein, 1983) before and after the intervention, with a further downward trend at the six month follow-up. The psychological (GHQ-12, Goldberg & Williams, 1988) and physical health (Winefield et al., 2002) measures followed a similar pattern. As expected, none of these results were evident in the control group. The findings replicate previous research in this regard (e.g. Gardner, 2005). It also strengthens evidence regarding the potential of EI development interventions to increase stress resilience and subsequent general well-being.

In another study by Fletcher, Leadbetter, Curran, and O'Sullivan (2009) an investigation was conducted as to whether EI developmental training workshops could lead to increases in the Bar-On Emotional Quotient (EQ-i) total scores. Fifty medical students were randomly assigned to receive the training and 30 students were recruited as a control group. The results revealed that the intervention group had significantly higher EQ-i change from baseline mean scores than the control group. The intervention group mean scores also increased across time, whilst the control group mean scores actually decreased slightly. The findings suggest that the EI training had a positive impact on the medical students in the intervention group. However, Fletcher et al. (2009) suggest that these results need to be treated as tentative as the sample of participants reduced dramatically throughout the study.

Another important contribution to the EI development literature was the study by Nelis, Quoidbach, Mikolajczak, and Hansenne (2009). These authors investigated, using a controlled experimental design, whether it was possible to increase EI in psychology

students. The sample consisted of 37 participants (19 in training and 18 in the control group). The intervention itself consisted of four training sessions of two and a half hours over a 4-week period. There were two training groups; one of 9 participants and the other comprising of 10 students. There was a one week interval which allowed participants to apply what was taught during the sessions. The major finding of the study was that the training group scored significantly higher on trait EI after the completion of the training programme. Compared to the control group, the training group showed a significant change in several competencies (emotion identification and emotion management) which was targeted by the programme. The major finding, however, was that all positive changes remained significant 6 months after the intervention (Nelis et al., 2009). This illustrates that changes were not only short-term but persistent on the long-term. All the above mentioned studies provide empirical evidence to substantiate the notion that EI can be developed through structured training programmes.

### **2.6.6 The Value of Emotional Intelligence in the Workplace**

Research conducted in the last decade has provided substantial empirical support for the value of EI in the workplace (Carmelli, 2003; Cote' & Miners, 2006; Dulewicz & Higgs, 2000; Lam & Kirby, 2002; Nel & De Villiers, 2004; Rosete & Ciarrochi, 2004; Sy, Tram, & O'Hara, 2006; Van Rooy & Viswesvaran, 2004; Wong & Law, 2002). In one of the earlier studies by Dulewicz and Higgs (2000) it was demonstrated clearly that EI impacts on work success. In this review they defined work success as the advancement in one's work organisation. The authors not only did an extensive review of the literature, but did their own research using 100 managers from several organisations over seven years. In this study the results provided support for the proposition that the combination of EQ and IQ is a more powerful predictor of success than either measure on its own (Dulewicz & Higgs, 2000). In support of this view Cote' and Miners (2006) found that EI is an important predictor of task performance and OCB because of its interactive effect with cognitive intelligence. Cote' and Miners furthermore argue that using cognitive intelligence tests alone to predict performance would entail an element of risk, because employees with low cognitive intelligence could perform effectively, depending on the type of job, if they have high EI.

Lam and Kirby (2002) followed on by investigating whether EI would account for increases in individual cognitive-based performance over and above the level attributable to traditional general intelligence. The authors utilised the MEIS instrument to measure EI. They reported that overall EI, emotional perception, and emotional regulation uniquely explained individual cognitive-based performance over and beyond the level attributable to general intelligence. Lam and Kirby (2002) argued that specific emotions experienced and their interpretation and regulation, rather than the presence of emotions per se, may cause problems for task performance. However, once emotions occur and are recognised by the cognitive systems of the brain, the ability to guard against distracting emotions and to build on enhancing emotions facilitates individual task performance, as well as team performance.

Exploring the effects of EI for both leaders and followers on job outcomes, Wong and Law (2002) found that job performance is significantly correlated with EI, and that the relationship appeared to be moderated by emotional labour. They also discovered that job satisfaction is significantly correlated with EI, but emotional labour did not moderate the EI-job satisfaction relationship. In contrast, organisational commitment and turnover intention had a low and non-significant correlation with EI, but emotional labour strongly moderated the EI-commitment and EI-turnover intention relationship. According to Wong and Law (2002) EI has a strong positive effect on job satisfaction regardless of the nature of the job. Building on this, Carmeli (2003) empirically examined the extent to which senior managers with high EI develop positive work attitudes, behaviour and outcomes. The results of this study indicated that emotionally intelligent senior managers develop emotional attachment to their organisations and are also more committed to their career. Findings also indicated that emotionally intelligent managers tend to be more satisfied with their work. A major implication from this research is that selecting senior managers who have high EI may have a positive impact on the extent to which an organisation succeeds in retaining its most critical workforce.

A meta-analytic study by Van Rooy and Viswesvaran (2004) examined the relationship between emotional intelligence and performance outcomes. The research located 69 independent studies that reported correlations between EI and performance or other important variables like personality and general mental ability. The results of the meta-analysis



demonstrated that EI was a construct that could be worthy of future research and that it is a valuable predictor of performance. The correlation between EI and performance was ( $p = .23$ ), which was not very high, but it was considerably higher than other forms of selection methods (like references checking) which are commonly used. The overall predictive validity of EI appeared fairly constant across all performance domains. The correlations ranged from  $p = .24$  for work performance to  $.10$  for academic performance. These findings clearly indicate the importance of EI in the workplace.

In a South African study Nel and De Villiers (2004) investigated whether there was a relationship between EI and job performance in a call centre environment. The sample included 135 call centre agents. The results of this study supported previous research (Lam & Kirby, 2002; Wong & Law, 2002; Van Rooy & Viswesvaran, 2004) and showed a statistically significant positive correlation between EI and job performance in the call centre environment. The strongest correlation with performance in the total call centre occurred in the EI cluster of self-management and the emotional competency of self-confidence (the Goleman EI model was used in this research). Furthermore, it was found that emotional self-awareness, trustworthiness, self-confidence and influence explained the greatest variance in job performance in relation to the call centre environment. Rosete and Ciarrochi (2005) investigated the relationship between EI, personality, cognitive intelligence and leadership effectiveness. Findings suggested that executives higher on EI are more likely to achieve business outcomes and be considered effective leaders by their subordinates and direct manager. A regression analysis revealed that EI, specifically the capacity to perceive emotions, was able to predict effective leadership. The authors argued that the results have important implications for organisations on how to performance manage, select and develop executives. Furthermore, the results show that EI may be a useful construct when identifying who is and is not likely to deal effectively with colleagues and staff (Rosete & Ciarrochi, 2005). In a more recent study by Sy, Tram and O'Hara (2006) the authors examined the relationships among employees' EI, their managers' EI, employees' job satisfaction, and performance for 187 food service employees from nine locations of the same restaurant franchise. The results of the study indicated that employees with higher EI have higher job satisfaction, which supports previous findings of Wong and Law (2002). The results also supported previous research (Wong & Law, 2002; Nel & De Villiers, 2004; Lam & Kirby,

2002) indicating that employees with higher EI have higher job performance, suggesting that employees with higher EI are more adept at using their emotions to facilitate effective job performance (Sy et al., 2006).

All these presented empirical studies build on the premise that individuals who are higher in EI perform better at their work. These findings should therefore encourage industrial psychologists and human resource practitioners alike to utilise EI training interventions as a vehicle to influence work performance outcomes. These notable studies suggest that EI has value in the workplace. For the purpose of the current study, the development of EI will be investigated, as well as its impact on various positive organisational outcomes, namely that of work engagement, organisational commitment, and satisfaction with work life.

## CHAPTER 3

### RESEARCH METHODOLOGY

#### 3.1 INTRODUCTION

The previous section provided a systematic theoretical background to all the relevant constructs in this study (work engagement, organisational commitment, satisfaction with work life and EI). The first part of the chapter will focus on the rationale, aims and objectives of this research. This discussion will lay the foundation for what was investigated in this research and culminates in the development of various research questions and related hypotheses. The second part of the chapter will focus on the research methodology, sampling, participants and details of the EI intervention that were utilised in this research. In addition, the measurement instruments used to measure the identified constructs will also be discussed.

#### 3.2 RATIONALE AND AIM OF THIS RESEARCH

##### 3.2.1 Rationale and research questions

Work engagement, according to Simpson (2009), has become an essential organisational management topic as it appears more evident that the construct relates to employee performance. Various studies highlight the importance of work engagement and its link to important organisational outcomes (Bakker, Demerouti, & Verbeke, 2004; Schaufeli, Taris, & Bakker, 2006a; Salanova, Agut, & Peiro, 2005; Saks, 2006; Xanthopoulou, Bakker, Heuven, Demerouti, & Schaufeli, 2008; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). These empirical studies not only link work engagement to positive workplace outcomes (Bakker & Schaufeli, 2008; Bakker & Bal, 2010) but also highlight its effect on improved work performance.

A variety of researchers (Bakker & Demerouti, 2008; Hakanen et al., 2006; Mauno et al., 2007; Schaufeli & Bakker, 2004; Schaufeli et al., 2008) have reported evidence to suggest that job resources facilitate engagement. Another key finding of the antecedents of work engagement, which is central to the current study, is that personal resources (such as – resiliency, self-efficacy, optimism, etc.) also facilitate engagement. Various studies have

reported empirical evidence in support of this notion (e.g. Hobfoll, Johnson, Ennis, & Jackson, 2003; Rothman & Storm, 2003; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2008). Knowing that work engagement can be facilitated by personal resources, it is argued in this study that EI, as a personal resource, has not been studied in relation to work engagement. Moreover, the developmental potential of EI and the effect of increased EI levels on work engagement had also not been investigated. For example, Bakker, Schaufeli, Leiter, and Taris (2008) found that engaged workers were not only engaged at work, but in their outside lives as well. This once again, indicates that work engagement may not only be facilitated by job resources on its own<sup>2</sup>, but by personal resources such as EI as well. Personal resources, according to Hopfoll and colleagues (2003), are positive self-evaluations that are linked to resiliency and refer to an individual's ability to control and impact upon their work environment successfully. Individuals with higher EI regulation abilities are noted to have better coping and resilience (Gardner, 2005, Mikolajczak, Roy, Luminet, Fillee, & Timary, 2007b; Mikolajczak, Nelis, Hansenne, & Quoidbach, 2008a; Mikolajczak, & Luminet, 2008b), which could be attributed to increased positive affect (Frederickson, 1998). It is further argued that, based on Frederickson's Broaden-and-Build Theory, prolonged experiences of positive affect experienced in the workplace could through its effect on outcomes like work engagement, organisational commitment and satisfaction with work life, influence work performance positively over time. Hence, it is proposed that if the personal resource of EI is developed that it may impact positively on employees' levels of work engagement, organisational commitment and perceptions of satisfaction of work life, which may have a positive effect on work performance<sup>3</sup>.

Based on the EI dimensions (e.g. emotional management, emotional control) identified by Palmer and Stough (2001), it was argued that if an employee is to maintain a high level of work engagement they would need to have the ability to manage all aspects of their emotional experiences, in order to ensure a positive emotional state, which could produce positive upward spirals of performance, according to the Broaden-and-Build theory (Fredrickson, 2001). Previous research has demonstrated that behaviours underlying the EI

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<sup>2</sup> In order to attempt to control for the effects of job resources in the personal resources (i.e. EI) and work engagement relationship a measure of organizational support was included in the data analyses.

<sup>3</sup> The effect of the outcomes of organisational commitment, engagement and satisfaction with work life on increased work performance was, however, not formally tested in this research.

dimensions identified by Palmer and Stough (2001) (i.e. emotional recognition and expression, understanding emotions, emotional management and emotional control) can be learned (Gardner, 2005; Görgens-Ekermans, 2011) and that training programmes focused on the emotional experiences of employees in the workplace can be effective in improving employee well-being (Dulewicz & Higgs, 2004; Fletcher, Leadbetter, Curran, & O'Sullivan, 2009; Gardner, 2005, Görgens-Ekermans, 2011). In this research it is argued that by developing these EI dimensions, individuals may more frequently experience positive emotional and/or psychological states at work. This could increase personal coping resources which in turn may facilitate the enhancement of work engagement and lead to improved levels of organisational commitment and satisfaction with work life over time.

Given the rationale for this research, the following research questions were formulated:

1. Emotional Intelligence

Can EI be developed? Will an individual's EI score increase after participating in the EI training programme? If an individual's EI score does increase after the training programme, will the heightened EI score be sustained over a period of time?

2. Work Engagement

Will work engagement increase after participation in the EI training programme? If levels of work engagement improve after the intervention, can this improvement be sustained over a period of time?

3. Organisational Commitment

Will organisational commitment improve after participation in the EI training programme? If levels of organisational commitment improve after the intervention, can this improvement be sustained over a period of time?

#### 4. Satisfaction with Work Life

Will satisfaction with work life improve after participation in the EI training programme? If levels of satisfaction with work life improve after the intervention, can this improvement be sustained over a period of time?

#### 5. Relationships between the variables

Can previous research on the inter-relationships between EI, work engagement, organisational commitment and satisfaction with work life be replicated in this study?

### **3.2.2 Research Aims**

The main aim of this study was to conduct a controlled experimental research design that incorporated an EI training intervention among managers and various other levels of employees within an organisation. It was hypothesised that by developing manager's / employees' EI they would be better able to regulate their emotional states at work. This could lead to increased levels, and prolonged periods of positive affect experienced at work, which in turn should facilitate more work engagement, resulting in increased levels of organisational commitment and satisfaction with work life. What makes this study unique is the fact that an EI training programme was used to enhance and strengthen positive individual psychological resources in the workplace. It is argued that this should result in more work engagement due to the increased frequency and intensity of positive affect experiences in the workplace. Due to the contagion effect, positive individual morale should also influence the workgroup morale positively (Cotton & Hart, 2003) in order to create a healthier and more productive workplace, noted in increased commitment and satisfaction with one's life at work. EI has mostly been related to negative psychological constructs like stress (Gardner, 2005) or burnout (Furnell, 2008) and work family conflict (Burger, 2009). The first unique contribution of this study is that the development of EI and its impact on work engagement and the resultant positive consequences (e.g. organisational outcomes, like commitment and satisfaction with work life) will be investigated.

A second aim of this research was to replicate previous research on the inter-relationships between EI, work engagement, organisational commitment and satisfaction with work life in a South African sample. For example, Carmeli (2003) reported that emotionally intelligent managers develop emotional attachments to their organisations (organisational commitment) and are also more committed to their career. Furthermore, their findings also suggested that managers higher in EI tended to be more satisfied with their work (i.e. satisfaction with work life). Moreover, Nikolaou and Tsaousis (2002) also reported a positive correlation between emotional intelligence and organisational commitment, indicating that increased EI could lead to increased levels of employee loyalty within organisations. Gardner (2005) also reported a weak significant positive relationship between EI and organisational commitment. Furthermore, various studies have reported evidence of strong positive relationships between EI and job satisfaction (Burger, 2009; Sy et al., 2006; Wong & Law, 2002). War (1987) has argued that the construct of job satisfaction is a reactive measure of psychological well-being as instruments that measure the construct typically measure pleasure or discontent with experiences on the job. In addressing this issue, the current study has utilised a slightly different scale namely, the satisfaction with work life scale (adapted from the satisfaction with life scale) which offers a set of dynamic alternatives deemed as indicators of mental health related to work, signifying more active states and actions (Steyn, 2011) than the conventional instruments that measure job satisfaction. The relationship between job satisfaction and organisational commitment has strong empirical evidence (Glisson & Durick, 1988; Gunlu, Aksarayli, & Percin, 2010). As previously noted, no identifiable studies have investigated the relationship between work engagement and EI, making the goal of the current study to investigate this relationship, exploratory in nature.

### **3.2.3 Evaluation of the EI training programme**

Based on the research questions presented above, the following hypotheses were formulated.

Hypothesis 1: Emotional Intelligence

EI (total score and scores on each of the 4 sub-dimensions<sup>4</sup>) will increase significantly following participation in the EI training programme.

Hypothesis 2: Work Engagement

Work engagement (scores on each of the three sub-dimensions) will increase significantly following participation in the EI training programme.

Hypothesis 3: Organisational Commitment

Organisational commitment (total score) will increase significantly following participation in the EI training programme.

Hypothesis 4: Satisfaction with Work Life

Satisfaction with work life (total score) will increase significantly following participation in the EI training programme.

### **3.2.4 General exploration of EI, work engagement, organisational commitment, and satisfaction with work life inter-relationships**

Further hypotheses were formulated to investigate the inter-relationships between EI, work engagement, organisational commitment, and satisfaction with work life.

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<sup>4</sup> These four sub-dimensions include: emotional recognition and expression, understanding the emotions of others, emotional management and emotional control. The 'emotions direct cognition' sub-dimension of the SUEIT was not included in the development intervention. This dimension refers to the extent to which emotional information is included in decision making. It has a strong link to preferred decision making styles, and these are not deemed to be as malleable as the other EI sub-dimensions in the SUEIT model.



Hypothesis 5:

Significant positive relationships exist between total EI (as well as the 4 EI sub-dimensions) as measured by the SUIET (Palmer & Stough, 2001) and work engagement (scores on the three sub-dimensions, as measured by the Utrecht Work Engagement Scale, UWES-9; Schaufeli & Bakker, 2003) at Time 1 (T1), Time 2 (T2) and Time 3 (T3).

Hypothesis 6:

Significant positive relationships exist between total EI (as well as the 4 EI sub-dimensions) as measured by the SUIET (Palmer & Stough, 2001) and organisational commitment (total score, as measured by the Organisational Commitment Questionnaire, OCQ; Mowday, Porter & Steers, 1979) at T1, T2, and T3.

Hypothesis 7:

Significant positive relationships exist between total EI (as well as the 4 EI sub-dimensions) as measured by the SUIET (Palmer & Stough, 2001) and satisfaction with work life (total score, as measured by the adapted version of the Satisfaction with Life Scale, SWLS; Diener, Emmons, Larsen & Griffin, 1985) at T1, T2, and T3.

Hypothesis 8:

Significant positive relationships exist between work engagement (scores on the three sub-dimensions, as measured with the UWES-9; Schaufeli & Bakker, 2003) and organisational commitment (total score, as measured by the Organisational Commitment Questionnaire, OCQ; Mowday et al., 1979) at T1, T2, and T3.

Hypothesis 9:

Significant positive relationships exist between work engagement (scores on the three sub-dimensions, as measured with the UWES-9; Schaufeli & Bakker, 2003) and satisfaction with

work life (total score, as measured by the adapted version of the Satisfaction with Life Scale, SWLS; Diener, Emmons, Larsen & Griffin, 1985) at T1, T2, and T3.

Hypothesis 10:

Significant positive relationships exist between organisational commitment (total score, as measured by the Organisational Commitment Questionnaire, OCQ; Mowday et al., 1979) and satisfaction with work life (total score, as measured by the adapted version of the Satisfaction with Life Scale, SWLS; Diener, Emmons, Larsen & Griffin, 1985) at T1, T2, and T3.

### **3.3 RESEARCH DESIGN AND PROCEDURE**

#### **3.3.1 Research design**

In this study a controlled experimental research design was used. Participants in the experimental group received an EI training intervention, while control group participants continued to live their lives normally without being exposed to any intervention<sup>5</sup>. With this type of design, all participants were measured in terms of various dependent variables (i.e. work engagement, organisational commitment, satisfaction with work life). Only the experimental group was exposed to a stimulus (EI training) which represents the independent variable. The control group during this time received no intervention. Furthermore, all participants from the experimental and control groups were measured immediately before the commencement of the training programme, as well as two additional times thereafter; immediately after the intervention and two and a half months after the EI training intervention was completed. If the results show significant improvements in levels observed between the first, second and last measurements for the experimental group (on the outcome variables) and no significant changes for the control group, the inference can most probably be attributed to the independent variable (the EI training programme).

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<sup>5</sup> It is acknowledged that the validity of the experimental design would have been increased if the control group participants were exposed to an unrelated (to EI) training intervention (e.g. decision making skills). However, due to logistical constraints it was not possible to build this into the research design.

The current study is unique in that it is the first notable study that used an EI training programme with the aim of facilitating improved levels of work engagement. In conjunction with this, the study adopted a quantitative research design where questionnaires were utilised. Quantitative research allocates numerical values to social phenomena. According to Babbie and Mouton (2002) this particular research paradigm aims to develop empirical and observable measurements of constructs in an attempt to bring forth responses from participants.

### **3.3.2 Sampling**

According to Terre Blanche et al. (2006), sampling refers to the selection of research participants from an entire population. Put differently, Kerlinger and Lee (2000) refer to sampling as taking a portion of a population or universe as representative of that population or universe. Terre Blanche et al., (2006, pp. 139) define non-probability sampling as “any kind of sampling where the selection of elements is not determined by the statistical principle of randomness”. This study utilised a non-probability convenience sample where individuals who were available to participate were selected.

In gaining access to a sample, an invitation letter was sent out to various corporate organisations inviting them to participate in the research study. Due to the logistical requirements of the study, many organisations were reluctant to participate because of the time constraints. However, a regional director of a prominent international courier company who has a keen interest in EI saw the potential benefits for his organisation, and requested that his company be selected as the sample for the research study. For convenience purposes a selection of employees at the Cape Town branch of the participating company was included in the sample group. The line managers of the various departments were responsible for allocating employees to the experimental and control groups. Individuals were not forced or coerced into participating in the research study. All the employees were informed prior to the study that participation was voluntary. Letters were sent out to various employees requesting them to be a part of the study. Participants could then voluntarily decline or agree to participate.

### 3.3.3 Participants

The study started with an initial total of 46 participants (both the groups together). Unfortunately there were a total of 11 drop outs (i.e. fall out rate of 23.9%) throughout the research process.<sup>6</sup> The final sample therefore included 35 participants who were all permanently employed within the large scale international courier company. The organisation operates within the courier services industry in South Africa and has branches in all the coastal provinces, including its head-office in Gauteng. For logistical purposes the branch in Cape Town was selected as a target group. All the participants in the study were employed in different non-managerial and managerial levels in various departments within the branch. Due to the nature of the research design 22 participants were included in the experimental group. The experimental group was further divided into four smaller groups when the intervention was presented. Group 1 consisted of two contact centre employees and four credit control employees. Group 2 included two data capturing employees and two operations staff members. Group 3 comprised of five management employees and group 4 consisted of seven sales department employees. The control group consisted of 13 participants. The group comprised of no contact centre employees, three credit control staff members, two data capturers, two management executives, two operations staff members and four sales representatives. Employees from the various departments were included in the experimental and control groups depending on their availability.

### 3.3.4 Data Collection

All the participants in the experimental and control groups were required to complete three stages of assessments. Ethical clearance was obtained from Stellenbosch University before the data gathering commenced. The three stages consisted of:

1. Time one (T1): one week prior to the start of the EI training programme (pre-programme assessment).

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<sup>6</sup> It is important to note the possible implications of the small sample size utilised in this research study. For example, it could influence the power of the statistical analysis conducted in chapter 4. However, it was extremely difficult to retain all the participants throughout the research process. There were reasons beyond the researcher's control which contributed to the small sample size used in the final data analyses. For example, three employees on the experimental group resigned within two weeks of the intervention due to organisational conflict. One manager could not continue due to management responsibilities. In the control group participants dropped out due to workload pressures.

2. Time two (T2): immediately after the intervention was completed (post-programme assessment 1).
3. Time three (T3): two and a half months following the completion of the intervention (post- programme assessment 2)

In the first pre-programme assessment (one week prior to the EI training) participants were required to complete a battery of questionnaires. The first test battery included a general information letter, a consent letter to participate in the research, a demographic questionnaire and a composite questionnaire package. Testing took place at the organisation. The Human Resources Department of the participant company offered their assistance in this regard. A pencil and paper procedure was utilised and test instructions were given to the participants prior to the commencement of the session. The questionnaire pack consisted of the informed consent form, a biographical information form, the Swinburne University Emotional Intelligence Test (SUEIT) (Palmer & Stough, 2001), the Utrecht Work Engagement Scale (UWES) (Schaufeli & Bakker, 2003), the Satisfaction With Work Life Scale (SWWLS) (adapted from the Satisfaction With Life Scale by Diener, Emmons, Larsen & Griffin, 1985), the Organisational Commitment Questionnaire (OCQ) (Mowday et al., 1979) and the Organisational Support sub-scale from the Job Characteristics Scale (JCS) (Hackman & Oldman, 1988). The initial data from the first assessment was used to determine benchmark levels of EI, work engagement, satisfaction with work life and organisational commitment. The same battery of tests (without the biographical information form) was used in the second assessment immediately after the completion of the EI training intervention, as well as at the two and a half month follow-up testing.

### **3.3.5 Description of the intervention**

The objectives of the EI training intervention was to create awareness about emotions in the workplace, facilitate a better understanding of emotions, and teach employees how to better manage and control their emotional states at work. Learning how to regulate one's emotions was a key focal area as it was argued that this EI component could be of particular importance in attaining increased positive affect and higher resultant levels of work engagement.

The structure and content of the EI training programme was adapted from the work of Gardner (2005) and was based on the SUIET (Palmer & Stough, 2001) framework of EI dimensions. The intervention focused on teaching theoretical knowledge about emotions and on training participants to use specific emotional identification and regulation skills. The EI training programme consisted of four 2-hour sessions which occurred weekly, so as to allow participants the time to practice their newly acquired emotional skills throughout the week, in their personal lives, as well as at work. A list of non-compulsory home work assignments were given after every session to encourage reflection on the content and the practising of skills throughout the week. The programme was implemented within small group sessions rather than through individual coaching (6-10 participants per group). The allocation of participants to the groups was carefully considered by the management team in order to ensure a healthy group climate where individuals would freely and openly share about their emotional experiences. The sessions were facilitated by the research supervisor and the research coordinator of the study.

In Mayer and Salovey's (1997) model of EI the authors argued that EI develops in hierarchical stages from basic psychological processes (i.e. emotional recognition and expression) to more complex psychologically integrated processes (i.e. emotional management) . This argument implies that that lower-level dimensions like emotional recognition and expression must be developed before an individual can progress to the next level (emotional regulation, which consists of emotional management and control). The four dimensions of EI which were utilised in the proposed EI training programme consisted of emotional recognition and expression, understanding the emotions of others, emotional management in the self and others, and emotional control (i.e. the 4 SUEIT sub-dimensions). The dimensions were developed in a similar fashion as to the order suggested by Mayer and Salovey (1997) – that is, emotional recognition and expression was covered in the first session, then understanding emotions (session 2), and then the emotional regulation components (last two sessions).

In the training session an overview of the aims and responsibilities of the respondents taking part in the intervention was presented. A thorough discussion followed which focused on the

individual EI profiles, which were made available to every experimental group participant after the first assessment phase. Following this, the facilitators focused on behaviours underpinning the first EI dimension of emotional recognition and expression. The second session focused on the second dimension of EI: understanding the emotions of others. The third session concentrated on the third dimension and the first of the regulation components, emotional management. The final session focused on the fourth dimension of emotional control. In the final session a post-assessment was also conducted.

Specific learning goals were formulated for each of the sessions. In each group session participants were encouraged to share their own experiences and to comment on the experiences of others. A variety of techniques was utilised. These would include mini-lectures (i.e. discussion on work engagement), group interaction, paired skills training and feedback, and individual training tasks. After each group session participants were given exercises to take home and complete before the next session. The exercises were optional. However, participants were encouraged that by doing the exercises they would gain an opportunity to practice the skills they have learnt in each session and reflect on their learning process at the start of the following session.

### **3.4 THREATS TO THE STUDY'S VALIDITY**

Various methodological implications should be considered when an experimental research design is used. For example, possible sources of error that could affect the validity of the experimental design have to be noted and eliminated where possible to do so. In a study by Burger (2009) the development of EI and its resultant impact on the well-being of teachers were investigated. The study utilised a one-group pre-test-post-test research design. The aim of the design was to establish whether there was any significant change in participants' psychological health after they were exposed to the independent variable (EI training). In doing so, a pre-test was administered before the intervention and a post-test was conducted thereafter. By using a post-test, the researchers could measure the amount of change that occurred during the intervention and draw inferences as to whether the intervention had an impact on the proposed outcomes. According to Babbie and Mouton (2002), however, the

drawback of such a design is that there may be another factor which exists, other than the independent variable that might cause a change between the results from a pre-test and the post-test. Goldstein (1993) argues that by using a control group the possibility of there being other reasons for the changes in participants' performance would be eliminated. In the current study, a control group has been added to try and eliminate any other possible sources of error that could account for the change from the pre-test scores to the post-test scores. It is important to note that the control group was rather small ( $n = 13$ ) which should be considered as a limitation of the study as statistical power issues could have affected the results<sup>7</sup>. Taking the aforementioned into consideration, there are further several threats to the study's internal and external validity which has to be considered.

A study possesses internal validity when the results of the research, scientific observations and measurements, are true representations of some reality (LeCompte & Goetz, 1982). Terre Blanche, Durrheim and Painter (2006) argue that when a study's findings follow in a direct and unproblematic way from its methods then the research will possess internal validity, meaning that when the findings of a study can be attributed to the independent variable (EI intervention) and other internal validity threats are minimised, it can be argued that the study will uphold its findings or conclusions. Taking the above into account it could be argued that when inferences are drawn from the experimental results, which do not accurately reflect what happened in the experiment itself, then the study's internal validity is threatened. Whenever anything else besides the independent variable (e.g. EI training) has an effect on the dependent variable then a threat to the internal validity of the study will be present (Babbie & Mouton, 2002). Several internal validity threats to this study can be identified. These should be considered as possible limitations when the results of the study are interpreted.

Firstly, the concept of *History* refers to specific events, other than the intervention, that could have occurred during the course of the experiment that will contaminate the results (Babbie &

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<sup>7</sup> Power according to Howell (2004) is the probability of correctly rejecting a false *H*<sub>0</sub>. Sample size is certainly a variable that can affect the power of a test. Due to the fact that we are interested in means or differences between means, we are therefore interested directly or indirectly, in the sampling distribution of the mean. The variance of the sampling distribution of the mean decreases either as  $n$  increases or the  $\sigma^2$  decreases (Howell, 2004). Discussions of power are generally concerned with the effects of varying sample size.



Mouton, 2002). These events could occur anywhere between the first and the last measurements and as such provide alternative explanations for the results. The utilisation of a control group could possibly eliminate some of these sources of error; however these threats are still noteworthy. For example, during the time between the first post-test and the second post-test, in this study, the sample organisation was going through their most stressful period of the year. The completion of the third assessment was, therefore, conducted amidst extreme workload pressures. Although all participants (i.e. in the experimental and control groups) most probably experienced similar stress related to the increased workload, the results of the final post-test assessment may reflect elements of this environmental confounding factor – which could not be controlled for in the research design.

Secondly, *Maturation* refers to all biological or psychological effects that occur as individuals continually grow and change systematically, and that these changes vary over time. Such changes may affect the results of an experiment (Babbie & Mouton, 2002). For example, at the onset of the intervention it was discovered that all management participants had recently undergone EI (with another EI assessment than the one used in this study) and personality testing with an outside organisation where they received telephonic feedback and consultation on their profiles. These individuals, therefore, would have had prior knowledge of their EI, and this could have influenced the EI assessments conducted in this study. In addition, due to the research design utilised in this study it is entirely possible that all participants (experimental and control group) that completed the EI assessment also spontaneously became aware of the construct and its related skills through the testing procedure. This cognisance could have led to spontaneous internal introspection and a natural process of evaluating and attempting to change these behaviours (EI) over time.

The third and final internal validity threat is that of *Testing*. The process of testing and retesting often influences individuals' behaviour, thereby influencing the results of the experiment (Babbie & Mouton, 2002). Critics often argue that by using the same battery of tests, individuals could familiarise themselves with the content in the questionnaires, thereby influencing the results of the experiment. In many ways the control group should control for

these threats. However, it is entirely probable that the process of testing and re-testing could have threatened the validity of the results obtained in this study.

Another form of threat concerns that of external validity which relates to the generalisability of the experimental findings. According to LeCompte and Goetz (1982) external validity refers to the degree to which the true representations of scientific measurement and observations could be legitimately applied across groups. In support of this definition, Terre Blanche et al. (2006) argue that a study shows external validity when its findings or conclusions can be generalised beyond the confines of the design and the study setting. It is important to note that in order for any critic to have concerns regarding the generalisability of the findings, the results must be valid for the examined group. In saying so, the internal validity of a study must be a prerequisite for external validity. It is important to note the following potential threats to the external validity of the current study.

The first possible threat in this regard is the *Reactive effect of pre-testing*. It is argued that often the effects of pre-test assessments lead to an increased understanding of the programme. For example, all the participants were exposed to a pre-test assessment and they could have familiarised themselves with test questions and focused specifically on certain learning material knowing that it will be covered in the next test. Another example could be the examination of the EI profiles in the first training session. Individuals could have been sensitised to the EI dimensions in which they received the lowest scores. Being aware of this, such individuals may have attempted to enhance their scores on these dimensions during the post-test assessments.

The final threat to the study's external validity is the *Interaction of selection and experimental treatment*. The characteristics of the employees who participate in the intervention determine the generalisability of the study's findings. Here one needs to consider how the line managers selected the employees for inclusion in the experimental or control groups. For example, they could have selected the troubled / "difficult" employees to be a part of the intervention, hoping the training would improve their performance. Also, all the participants came from only one branch in the company which could have a very unique

corporate culture. It may be essential to replicate the study in another branch to validate the generalisability of the findings.

### **3.5 MEASUREMENT INSTRUMENTS**

Various prominent and well-established questionnaires was utilised to measure the constructs (EI, work engagement, organisational commitment, satisfaction with work life and organisational support) in this study. A more in-depth discussion on the reliability and validity of these instruments are presented next.

#### **3.5.1 Swinburne University Emotional Intelligence Test (SUEIT)**

The workplace SUEIT is a self-report measure that has been designed to specifically assess the way individuals typically think, feel and act with emotions at work (Palmer & Stough, 2001). The instrument provides an overall score that indicates an employee's general workplace EI and allocates five sub-dimension scores that indicate individuals' more specific capacities according to the five dimensions of the model. These include: (1) emotional recognition and expression – the ability to identify one's own feelings and emotional states, and the ability to express those inner feelings to others; (2) understanding other's emotions – the ability to identify and understand the emotions of others and those that manifest in response to workplace environments; (3) emotions direct cognition<sup>8</sup> – the extent to which emotions and emotional knowledge are incorporated in decision-making and problem-solving; (4) emotional management – the ability to manage both positive and negative emotions within oneself and in others; and (5) emotional control – the ability to effectively control strong emotional states experienced at work.

The SUEIT is scored on a five-point Likert scale that asks test-takers to indicate the extent to which provided statements (items) are true of the way they typically think, feel and act at work (1 = never, 2= seldom, 3 = sometimes, 4 = usually, 5 = always) (Palmer & Stough, 2001). The SUEIT technical manual reflects very favourable psychometric properties for the instrument and reported Cronbach Alpha's for each factor is as follows: emotional

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<sup>8</sup> This dimension was not focused on during the training intervention. The calculation of a total EI score from the different sub-dimensions was, therefore, conducted without the inclusion of this sub-dimension score.

recognition and expression:  $\alpha = .73$ ; understanding emotions external:  $\alpha = .83$ ; emotions direct cognition:  $\alpha = .63$  (could be due to small sample size) ; emotional management:  $\alpha = .72$ ; and emotional control:  $\alpha = .72$ . Over a period of three months the test-retest stability coefficients ranged from .98 to .95 for the EI sub-scales on the SUEIT (Palmer & Stough, 2001).

Gardner and Stough (2002) examined the relationship between leadership and emotional intelligence in a sample of Australian senior level managers. In this study the reliability for each sub-dimension were reported as follows: emotional recognition and expression:  $\alpha = .91$ ; understanding emotions external:  $\alpha = .89$ ; emotions direct cognition:  $\alpha = .70$ ; emotional management:  $\alpha = .83$ ; and emotional control:  $\alpha = .77$ . This indicates satisfactory internal consistency of the instrument. In support of these favourable findings another Australian study by Downey, Papageorgiou and Stough (2005) reported Cronbach Alphas of: emotional recognition and expression:  $\alpha = .91$ ; understanding emotions external:  $\alpha = .89$ ; emotions direct cognition:  $\alpha = .70$ ; emotional management:  $\alpha = .83$ ; and emotional control:  $\alpha = 0.77$ .

In a South African study by Klem and Schlecter (2008) that utilised the SUEIT, an investigation into the relationship between leader EI and psychological climate was conducted. According to this study a satisfactory Cronbach Alpha for the SUEIT total score was reported ( $\alpha = .88$ ). Alphas for the sub-scales were reported to be: (1) emotional recognition and expression:  $\alpha = .73$ ; (2) understanding emotions external:  $\alpha = .83$ ; (3) emotions direct cognition:  $\alpha = .63$  (could be due to small sample size); (4) emotional management:  $\alpha = .72$ ; and (5) emotional control:  $\alpha = .72$ .

In the current study, the following Cronbach Alpha's were reported for the pre-test assessment: emotional recognition and expression:  $\alpha = .79$ , understanding emotions external:  $\alpha = .82$ , emotional management:  $\alpha = .78$  and emotional control:  $\alpha = .80$ . For the post-test 1 assessment the results were: emotional recognition and expression:  $\alpha = .75$ , understanding emotions external:  $\alpha = .81$ , emotional management:  $\alpha = .83$  and emotional control:  $\alpha = .87$ . The internal consistency results for the second post-test assessment revealed the following

results: emotional recognition and expression:  $\alpha = .85$ , understanding emotions external:  $\alpha = .88$ , emotional management:  $\alpha = .82$ , and emotional control:  $\alpha = .88$ . All of the above coefficient alphas suggest that the instrument displays good internal consistency and test-retest reliability. Descriptive statistics for the SUIET, as obtained in this study, are presented in table 3.1.

**Table 3.1***Descriptive statistics for the SUIET*

	N	Minimum	Maximum	Mean	Std. Deviation
Total EI Time 1 (T1)	35	145.00	218.00	185.429	18.140
Emotional Recognition/Expression	35	25.00	51.00	38.143	6.179
Understanding Emotions External	35	45.00	90.00	72.857	9.497
Emotional Management	35	31.00	53.00	41.600	5.981
Emotional Control	35	21.00	43.00	32.829	5.458
Total EI Time 2 (T2)	35	113.00	235.00	189.086	21.650
Emotional Recognition/Expression	35	18.00	52.00	38.771	6.020
Understanding Emotions External	35	34.00	89.00	74.714	10.274
Emotional Management	35	32.00	56.00	42.886	6.033
Emotional Control	35	21.00	43.00	32.714	5.188
Total EI Time 3 (T3)	35	143.00	260.00	192.600	21.175
Emotional Recognition/Expression	35	29.00	55.00	39.571	6.040
Understanding Emotions External	35	47.00	100.00	76.114	9.358
Emotional Management	35	28.00	60.00	43.171	6.138
Emotional Control	35	22.00	45.00	33.743	5.124

T1 = Time one, T2 = Time two, T3 = Time 3

### 3.5.2 Work Engagement

Work engagement was assessed by using the nine-item version of the Utrecht Work Engagement Scale (UWES; Schaufeli, Bakker, & Salanova, 2006b). This self-report measure of the UWES – 9 is based on the definition of work engagement as provided by Schaufeli et al. (2000) where the construct consists of three sub-dimensions. These include (1) Vigour – which refers to high levels of energy, zest and stamina while working; (2) Dedication – which refers to whether an individual derives a sense of significance at work, whether they feel enthusiastic and proud of their job and whether they are inspired and challenged by their work; and (3) Absorption – which refers to whether the person is totally and happily immersed in their work and whether they have difficulties detaching from it, so that time passes quickly. The UWES items reflect three underlying dimensions, which are measured with three items each: Vigour (e.g. “At my work, I feel bursting with energy”), Dedication (e.g. “I am enthusiastic about my job”), and Absorption (e.g. “I get carried away when I am working”).

A ground-breaking study by Schaufeli and Bakker (2003) collected data from 10 different countries ( $n = 14521$ ) and the results revealed that the original UWES, which consisted of 17 items could be reduced to 9-items (UWES-9). Through calculating the Cronbach Alpha, Schaufeli and Bakker (2003) demonstrated that the UWES-9 showed good internal consistency and test-retest reliability. Confirmatory factor analysis (CFA) evidence also confirmed the construct validity of the instrument (Schaufeli & Bakker, 2003). In addition, sufficient evidence for internal consistency and test-retest reliability of the scale was also reported (e.g. Cronbach Alpha's exceeded the critical value of .70 in all cases). In two more recent South African studies (Herbert, 2011; Steyn, 2011), Cronbach Alpha's for the three subscales of the UWES-9 ranged from .68 to .86 for the one study, and from .77 to .83 in the other study.

In the current study, the following Cronbach Alphas were calculated. For the pre-test assessment the following results were obtained: Vigour:  $\alpha = .79$ ; Dedication:  $\alpha = .79$ , and Absorption:  $\alpha = .73$ . The following results for the first post-test assessment can be reported:

Vigour:  $\alpha = .85$ , Dedication:  $\alpha = .82$  and Absorption:  $\alpha = .73$ . For the second post-test assessment, the following results were obtained: Vigour:  $\alpha = .86$ ; Dedication:  $\alpha = .84$ ; and Absorption:  $\alpha = .64$ . Hence, it is concluded that sufficient evidence exists that points towards adequate internal consistency and test-retest reliability of the UWES – 9 in this current study. Descriptive statistics for the UWES – 9 obtained in this study are presented in table 3.2

**Table 3.2**

*Descriptive statistics of the UWES-9*

	N	Minimum	Maximum	Mean	Std. Deviation
T1uweVig	35	3.00	18.00	12.543	3.062
T1uweDed	35	8.00	18.00	14.000	2.797
T1uweAbs	35	9.00	17.00	13.086	2.548
T2uweVig	35	7.00	18.00	13.057	3.058
T2uweDed	35	9.00	18.00	14.171	2.549
T2uweAbs	35	8.00	18.00	13.371	2.624
T3uweVig	35	7.00	18.00	13.257	2.914
T3uweDed	35	7.00	18.00	14.657	2.645
T3uweAbs	35	6.00	18.00	13.086	3.221

**Note:** T1 = Time one, T2 = Time two, T3 = Time three

uweVig = work engagement vigour sub-scale

uweDed = work engagement dedication sub-scale

uweAbs = work engagement absorption sub-scale

### 3.5.3 Organisational Commitment

Organisational Commitment was measured using the Mowday et al. (1979) Organisational Commitment Questionnaire (OCQ). This scale is acknowledged to be the most widely utilised scale of commitment from an attitudinal perspective with good psychometric properties (Chih & Lin, 2009; Lok, Westwood, & Crawford, 2005). The OCQ utilises a 7-

point Likert scale and comprise of 15 items. The instrument includes reverse scored items. Respondents have to indicate their level of agreement with each of the statements on a 7-point Likert scale ranging from “strongly disagree” (1) to “strongly agree” (7). For example; “I am willing to put in a great deal of effort beyond that normally expected in order to help this organisation be successful” and an example of a reverse scored question would be, “I feel very little loyalty to this organisation”.

Porter and company (1979) examined the homogeneity of the OCQ items, using factor analysis of the six samples in their study and the results concluded that the items were measuring a single common underlying construct. They also reported consistently very high coefficient  $\alpha$ 's, ranging from .82 to .93, with a median of .90 (Mowday, Steers & Porter, 1979). Various other authors reported similar coefficient alphas which demonstrated the good psychometric properties the instrument upholds (Angle & Perry, 1981; Martin & O’Laughlin, 1984). In the current study, the following Cronbach Alphas were reported. For the pre-test assessment, the coefficient alpha was .674, whilst for the first post-test assessment results a Cronbach Alpha of .866 were obtained. For the second post-test a coefficient alpha of .819 was evident. These results reflect moderate to good internal consistency and test-retest reliability for the OCQ. Descriptive statistics for the OCQ obtained in this study are presented in table 3.3

**Table 3.3**

*Descriptive statistics for the OCQ*

	N	Minimum	Maximum	Mean	Std. Deviation
T1octotal	35	63.00	103.00	86.057	9.634
T2octotal	35	47.00	105.00	82.686	13.128
T3octotal	35	52.00	105.00	86.400	11.518

**Note:** T1 = Time one; T2 = Time two; T3 = Time three

Octotal = Organisational Commitment total



### 3.5.4 Satisfaction with Work Life

In order to measure satisfaction with work life, the Satisfaction With Life Scale (SWLS, Diener, Emmons, Larsen & Griffin, 1985) was adapted for this study to provide a measure of a cognitive-judgemental assessment of satisfaction with work life. The original SWL scale was designed around the premise that one must ask subjects for an overall judgment of their life in order to measure the concept of life satisfaction (Steyn, 2011). The original instrument consists of five items scored on a 7-point Likert scale ranging from 7 (strongly agree) to 1 (strongly disagree). The total range of scores varies from 5 (low satisfaction) to 35 (high satisfaction). The original statements are (1) “In most ways my life is close to my ideal”, (2) “The conditions of my life are excellent”, (3) “I am satisfied with my life”, (4) “So far I have gotten the important things I want in life”, and (5) “If I could live my life over, I would change almost nothing”. The items were adapted for this study to (1) “In most ways my work life is close to my ideal”, (2) “The conditions of my work life are excellent”, (3) “I am satisfied with my work life”, (4) “So far I have gotten the important things I want in my work life”, and (5) “If I could live my work life over, I would change almost nothing”.

Diener et al. (1985) conducted a principal-axis factor analysis on the SWLS, from which a single factor emerged, accounting for 66% of the variance of the scale (Pavot & Diener, 1993). Diener et al. (as cited in Pivot & Diener, 1993) report good internal consistency for the scale (coefficient alpha of .87). In a study by Glaesmer, Grande, Blaehler, and Roth (2011) who translated the SWLS into a German version, an internal consistency result of  $\alpha = .92$  was reported. In support of these findings Steyn (2011) calculated a Cronbach Alpha of .859 for the adapted version of the scale (Satisfaction with Work Life). In the current study, the following Cronbach Alphas were calculated:  $\alpha = .863$  for the pre-test assessment,  $\alpha = .851$  for the first post-test assessment, and  $\alpha = .875$  for the second post-test assessment. Hence it is concluded that the results reveal very good internal consistency and test-retest reliability for the Satisfaction with Work Life (SWWL) scale used in this study. Descriptive statistics for the SWWL scale obtained in this study are presented in table 3.4.

**Table 3.4***Descriptive statistics for the SWWL*

	N	Minimum	Maximum	Mean	Std. Deviation
T1swwltot	35	8.00	34.00	23.914	6.482
T2swwltot	35	10.00	35.00	24.057	6.357
T3swwltot	35	10.00	35.00	25.486	6.007

**Note:** T1 = Time one; T2 = Time two; T3 = Time three

swwltot = Satisfaction with Work Life total

### 3.5.5 Organisational Support

In order to control for the possible effects of job resources in the relationship between the personal resource of EI and the outcome variables included in this research, a measure of organisational support as an important aspect of job resources was included in the study. For the purpose of measuring organisational support the Job Characteristics Questionnaire (JCQ) (Hackman & Oldman, 1988) organisational support sub-scale was used. The sub-scale consists of 16 items. Participants responded to the items on a 4-point Likert scale ranging from (1) “never” to (4) “always”. Examples of the statements include: “Can you count on your colleagues when you have difficulty at work?”, “Do you get on well with your colleagues?”, and “Do you get on well with your supervisor?” In the current study, the following Cronbach Alphas were calculated. For the pre-test assessment a coefficient alpha of .898 was reported, whilst .904 and .939 was obtained for the first and second post-tests respectively. These results reflect a very good level of internal consistency and test-retest reliability for the scale. Descriptive statistics for the JCQ Organisational Support sub-scale obtained in this study are presented in table 3.5.

**Table 3.5***Descriptive statistics for the JCQ Organisational Support sub-scale*

	N	Minimum	Maximum	Mean	Std. Deviation
T1JRSupport	35	33.00	64.00	51.171	8.463
T2JRSupport	35	35.00	64.00	51.857	8.371
T3JRSupport	35	30.00	64.00	52.314	9.588

**Note:** T1 = Time one; T2 = Time two; T3 = Time three

JR Support = Organisational support subscale

### 3.6 STATISTICAL ANALYSIS

The Statistical Package for the Social Sciences (SPSS) was used to perform a range of statistical analysis on the questionnaire data. In order to explore relationships between the variables, Spearman correlations were calculated. A series of repeated measures ANOVA were conducted and post-hoc comparisons were calculated.

### 3.7 CHAPTER SUMMARY

The aim of this chapter was to review the methodology utilised in the study. The research questions and resulting hypotheses were presented. The research design, sample selection, participants, data collection, as well as the intervention conducted, threats to the study's validity, and measurement instruments utilised in this study were discussed. All the descriptive statistics of the measurement instruments were reported. The results of the study will be presented in the next chapter.

## CHAPTER 4

### RESULTS

#### 4.1 INTRODUCTION

The main aim of this study was, firstly, to establish whether an EI intervention programme could successfully be applied to develop or increase participants' levels of EI which should facilitate improved levels of engagement, resulting in increased levels of commitment and satisfaction with work life. Secondly, the study aimed to explore and replicate previous research on the inter-relationships between EI, work engagement, organisational commitment and satisfaction with work life within a South African sample. This chapter will focus on an integrated and holistic examination of the empirical evidence obtained from the research. Furthermore, references to previous research findings and relevant literature will be presented.

#### 4.2 SAMPLE

The initial pre-test questionnaires were accompanied by demographic information forms and were administered to 46 participants comprising of managers and other departmental employees within an international courier company. Various challenges were faced regarding sample retention. The dropout rate for this study was relatively high (23.91%). Out of the initial 46 participants only 35 completed all three assessments. For the experimental group, out of the initial 28 participants, 6 individuals did not complete the intervention. One person simply did not join the training programme when it started, whilst two dropped out during the programme (one due to personal difficulties and the other because of work demands due to his new promotion at work). The remaining 3 participants that did not complete the training programme resigned from the organisation within the first two weeks after the training commenced. For the control group, out of the initial 18 participants 5 participants did not complete all three assessments. All five declined voluntary participation by not signing the consent form during one of the three assessment times. The data of these participants were not included in the study. Random missing values in the dataset were substituted with the mean for each scale. Taking the above into account the full dataset consisted of the data for 35 participants that participated in this study.

The total sample group ( $n = 35$ ) comprised of 22 experimental group members (62.9%) and 13 control group members (37.1%). The descriptive statistics reflected a mean age ( $n = 33$ , 2 unreported) of 40 years, with the youngest participant being 23 and the eldest participant being 54. Out of the sample population 28.6% reported Afrikaans ( $n = 10$ ) to be their first language, 65.7% English ( $n = 23$ ) and 5.7% Xhosa ( $n = 2$ ). Participants who identified Afrikaans as a second language accounted for 62.9% ( $n = 22$ ) and English 28.6% ( $n = 10$ ). With regard to marital status, 34.3% were single ( $n = 12$ ), 54.3% were married ( $n = 19$ ), and 11.4% were divorced ( $n = 4$ ). The average length of service at the partnering organisation was 11.4 years with the minimum length of service being 1 month and the maximum length of service being 33 years. Additional descriptive statistics for the sample, specifically related to ethnicity, gender, departmental distribution and educational level, are presented in tables 4.1 to 4.5 below.

**Table 4.1***Ethnicity distribution*

	Frequency	Percent	Valid Percent	Cumulative Percent
Black	2	5.7	5.7	5.7
Coloured	18	51.4	51.4	57.1
White	15	42.9	42.9	100.0
Total	35	100.0	100.0	

**Table 4.2***Gender distribution*

	Frequency	Percent	Valid Percent	Cumulative Percent
Male	15	42.9	42.9	42.9
Female	20	57.1	57.1	100.0
Total	35	100.0	100.0	

**Table 4.3***Departmental distribution*

	Frequency	Percent	Valid Percent	Cumulative Percent
Management	7	20.0	20.0	20.0
Credit Control	7	20.0	20.0	40.0
Data Capture	4	11.4	11.4	51.4
Sales	11	31.4	31.4	82.9
Operations	4	11.4	11.4	94.3
Contact centre	2	5.7	5.7	100.0
Total	35	100.0	100.0	

**Table 4.4***Departmental Group Cross tabulation*

		Group		
		Exp	Control	Total
Department	Management	5	2	7
	Credit Control	3	4	7
	Data Capture	3	1	4
	Sales	7	4	11
	Operations	2	2	4
	Contact centre	2	0	2
Total		22	13	35

**Table 4.5***Education Level*

		Frequency	Percent	Valid Percent	Cumulative Percent
Level	Matric	17	48.6	56.7	56.7
	Diploma	10	28.6	33.3	90.0
	Post graduate	3	8.6	10.0	100.0
	Total	30	85.7	100.0	
Missing	System	5	14.3		
Total		35	100.0		

The ethnicity of the sample group is reflected in table 4.1 and shows that Coloured and White participants together comprised 94.3% of the total sample, while a small proportion of Black participants made up the remainder of the sample population (5.7%). This is a fairly adequate representation of the typical ethnic group distribution of the economic active population in the Western Cape. The gender distribution was relatively even with males comprising 42.9% of the population and females accounting for the remaining 57.1% of the sample. Departmental distribution is reflected in table 4.3. Table 4.4 further reflects a cross tabulation of the sample group where participants are divided into the experimental and control groups per department. This gives an indication of the comparability of the two different groups in terms of the nature of their work environments. Table 4.5 indicates the level of education of the sample group. Almost half of the sample held a matric qualification (48.6%), a few participants reported having obtained a diploma (28.6%) and only (8.6%) had a post graduate university degree of Honours or higher. The remaining (14.3%) did not stipulate their educational level completed.

### **4.3 RESULTS: EVALUATION OF THE EI TRAINING PROGRAMME**

The main objective of this research was, firstly, to investigate whether an EI intervention programme could be used to successfully develop and increase participants' levels of EI. It was argued that higher EI levels may facilitate improved levels of engagement, as well as increased levels of commitment and satisfaction with work life. Based on the research questions presented in chapter 3, the following hypotheses were formulated in order to evaluate the EI programme.

#### Hypothesis 1: Emotional Intelligence

EI (total score and scores on each of the 4 sub-dimensions<sup>9</sup>) will increase significantly following participation in the EI training programme.

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<sup>9</sup> These four sub-dimensions include: emotional recognition and expression, understanding the emotions of others, emotional management and emotional control. The 'emotions direct cognition' sub-dimension of the SUEIT was not included in the development intervention. This dimension refers to the extent to which emotional information is included in decision making. It has a strong link to preferred decision making styles, and these are not deemed to be as malleable as the other EI sub-dimensions in the SUEIT model.

### Hypothesis 2: Work Engagement

Work engagement (total scores on each of the three sub-dimensions) will increase significantly following participation in the EI training programme.

### Hypothesis 3: Organisational Commitment

Organisational Commitment (total score) will increase significantly following participation in the EI training programme.

### Hypothesis 4: Satisfaction with Work Life

Satisfaction with Work Life (total score) will increase significantly following participation in the EI training programme.

Three assessments were conducted (described in section 3.3.4). It was expected that levels of EI (total score and sub-dimensions), work engagement (sub-dimension totals), organisational commitment and satisfaction with work life would increase significantly for the experimental group from T1 to T2 following the intervention whereas for the control group, there would either be a slight non-significant increase (due to maturation effects), or the levels would remain stable. It was furthermore expected that the levels for all these variables mentioned before would preferably increase further or remain stable for the experimental group from T2 to T3. This will indicate that development has continued to occur over time (although the same magnitude of changes will not be expected as should be evident from T1 to T2). For the control group it was expected that no significant change will occur from T2 to T3 and a possible decrease in levels could be likely.

A series of between group comparisons, by means of one way analysis of variance (ANOVA) with post hoc tests comparisons were performed to explore the differences between levels of EI, work engagement, organisational commitment, and satisfaction with work life at measurement times T1, T2, and T3. A specific type of ANOVA, namely repeated measures



analysis of variance which is used to measure the same variables under different conditions was utilised in this study. When inspecting the ANOVA summary table an  $F$  – value and  $p$  – value is provided. The  $F$  statistic is known to be a calculated ratio of the within-group variance. In conjunction with the  $F$ -value, a  $p$ -value is provided, which is compared to alpha (.05). If the  $p$ -value is less than alpha (that is  $p < .05$ ), then  $F$  is considered to be statistically significant. A significant  $F$  –value tells you only that the means are not all equal. This will indicate a rejection of the null hypothesis (i.e. the calculated means of the levels of EI, for example, are the same due to chance at T1, T2, and T3). Furthermore, a statistical significant  $F$  suggests that the calculated means under the conditions are significantly different (for example; the EI levels (means) at T1, T2, and T3 are not the same). Should the  $p$ -value equal 0.00 ( $p < .001$ ), according to Stangor (2004), then it indicates that the difference in mean scores of total EI at T1, T2, and T3 to be purely the result of sampling error, would be virtually impossible.

It is important to note that a statistical significant  $F$ -value only reports whether the level of EI does in fact differ at the three assessment periods, however, the exact means that are significant will not be identified. These findings are reported in the tables listing the fixed effect test over three testing times. The group by time score is the value of interest for this research. Post hoc comparisons were then calculated (i.e. the Least Significance Difference test; LSD test,) to test the difference between, and among, particular group means. That is, post hoc tests were conducted to compare the statistical significance of differences between the levels of EI, work engagement, organisational commitment and satisfaction with work life at all three time periods. Should the  $p$ -value at two time periods be compared and be less than alpha ( $p < .05$ ), it would then indicate that the levels of the specific variable being tested on those measurement periods would in fact be different.

### 4.3.1 Results: Total EI

Table 4.6 contains the ANOVA results in determining whether there was a significant group by time effect for total EI over the three testing periods<sup>10</sup>. Table 4.7 reflects the post hoc test results as to identify the significant score differences between the group means<sup>11</sup>. Figure 4.1 shows a graphical representation of the change in participants' level of EI at the three measurement points comparing the experimental group and control group scores.

Contrary to what was expected, the results revealed that the total effect for the group by time interaction was non-significant (see table 4.6). This result could, however, have been influenced by a statistical power limitation due to the small sample size ( $n = 35$ ) utilised in this research. According to figure 4.1, total EI increased in the experimental group from T1 to T3, whilst no similar trend was evident in the control group. Although the total effect result was non-significant, the trend in the increased levels of total EI means for the experimental group over T1, T2, and T3 (as well as the significant result obtained from T1 to T3) may be cautiously interpreted to suggest that it could be possible that EI can be developed over time, as empirically shown by other studies (e.g. Gardner, 2005; Burger, 2009; Görgens-Ekermans & Swart, 2011; Görgens-Ekermans, 2011). Upon inspection of the post hoc results in table 4.7, a significant change ( $p = 0.014$ ) for the experimental group from T1 to T3 is noted. This does suggest that levels of total EI for the experimental group has changed significantly at the two and a half months follow-up testing. It could suggest that improved levels of EI recognition and regulation skills may take time to develop and be internalised. No similar trend for the control group was evident which may suggest to some extent that the intervention may have contributed to the increased levels of total EI in the experimental group. Although the pattern of results did not provide conclusive evidence that the EI training programme caused a change in the participants' EI levels, the increased EI level at T3 for the experimental group is a notable result. It is therefore evident that a significant increase in

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<sup>10</sup> This result (and all the other results reported in this chapter) was calculated based on the inclusion of the organization support construct as a covariate in the analyses.

<sup>11</sup> Given that the group by time fixed effect was non-significant, the results of the post-hoc tests should be interpreted with caution – this limitation is applicable to all the analyses where this was the case. These results may only be interpreted as pointing towards trends in the data as the fixed effect was not significant. It is fairly probable that this was due to the small sample sizes of the experimental and control groups utilized in this research. This could have resulted in a problem with the statistical power of the analyses. This is a notable limitation of the research which should be addressed in future research of this nature.

total EI did take place as expected for the experimental group. Although hypothesis 1 is not confirmed, it can be argued that partial, weak support for the notion that EI can be developed, has emerged from the findings. The current results do not conclusively justify the statement that the EI increase is a result of the particular training programme. However, it does seem to lend further support to the premise that EI seems to be developable over time (Görgens-Ekermans, 2011; Nelis et al., 2009; Watson, 2000). Although there is only weak empirical evidence to suggest that EI can be developed through the current intervention, it is argued that if methodological considerations (the small sample size) are taken into consideration together with the upward trend of EI scores in the experimental group compared to the control group, it is concluded that EI development may be attainable. The results of this study suggest that further research in corporate settings regarding EI development with the current intervention may perhaps produce statistically significant results to support the proposed hypothesis, if the methodological challenges that were encountered in this study could be avoided.

Based on the results it is cautiously argued that the current EI training intervention may have contributed towards increasing the experimental group's managers' and employees' EI levels at the participating organization. Although the present study was limited by a small sample size ( $n = 35$ ), the results seem to provide further weak empirical support for the notion that emotional responses and behaviours can be learned and be developed in employees (Burger, 2009; Dulewicz & Higgs, 2004; Fletcher et al., 2009; Gardner 2005; Görgens-Ekermans & Swart, 2011; Görgens-Ekermans, 2011; Nelis et al., 2009; Slaski & Cartwright, 2003). In both the studies by Gardner (2005) and Nelis et al. (2009) the researchers discovered that EI skills continued to develop after the training programme was completed. Nelis et al., (2009), for example, reported that EI changes remained six months after the intervention. A similar trend is evident in the experimental group data from this study.

**Table 4.6****ANOVA Results: Fixed effect test for Total EI over three testing times**

Fixed effect test for Total EI over three testing times				
Effect	Num. DF	Den. DF	F	p
JRSupport	1	65	9.738	0.003
Group	1	33	2.084	0.158
Time	2	65	1.737	0.184
Group*time	2	65	0.740	0.481

**Table 4.7****Post hoc results of Total EI.**

Post Hoc Tests for EI								
Effect: Group*time								
Cell No.	Group	time	{1}	{2}	{3}	{4}	{5}	{6}
			187.94	192.34	196.84	182.44	183.42	184.32
1	Exp	T1		0.214	<b>0.014</b>	0.436	0.524	0.613
2	Exp	T2	0.214		0.204	0.162	0.210	0.263
3	Exp	T3	<b>0.014</b>	0.204		<b>0.044</b>	0.061	0.082
4	Control	T1	0.436	0.162	<b>0.044</b>		0.830	0.682
5	Control	T2	0.524	0.210	0.061	0.830		0.844
6	Control	T3	0.613	0.263	0.082	0.682	0.844	

**Note:**  $P < 0.05$  is significant

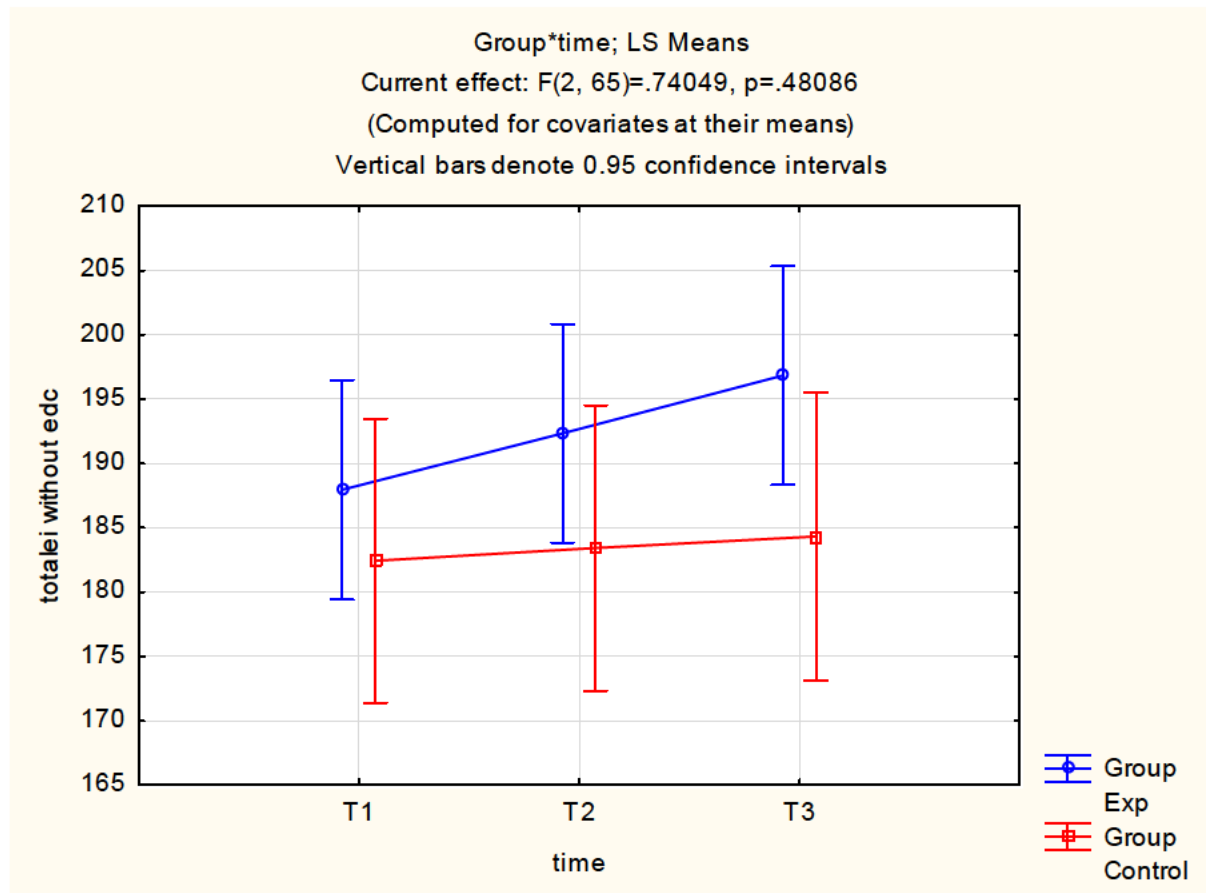


Figure 4.1: Total EI as measured at T1, T2, and T3

#### 4.3.2 Results: Emotional Recognition and Expression (EREXP)

EREXP can be defined as the ability to identify feelings and emotional states, and to express those to others. The results revealed that the total effect for the group by time interaction for EREXP over the three testing periods was non-significant (see table 4.9). In table 4.10, the post hoc results also revealed no significant group differences between any of the mean scores. As mentioned previously, the statistical power limitation due to the small sample size ( $n = 35$ ) may have contributed to this result. According to Figure 4.2 a non-significant increase in EREXP scores for the experimental group from T1 to T2 occurred, while no similar trend was evident in the control group. The experimental score levels remained stable between T2 and T3 testing. The control group data showed a non-significant decrease and increase in EREXP levels over the three assessment times. No definite explanations can be given for these fluctuations although a history or maturation effect may have occurred between the T2 and T3 testing of the control group. As expected, however, no consistent

upward trend, as was evident in the experimental group data, was evident in the control group data. The trend of almost no observable increase between the T2 and T3 scores for the experimental group is consistent with previous research on this intervention (Görgens-Ekermans & Swart, 2011; Görgens-Ekermans, 2011). It would seem that the skills needed to identify and recognise emotions would be more easily acquired and internalised than the internalisation process needed to master the EI regulation components (e.g. emotional control). Hence, it could be argued that a mastery saturation level could more easily be reached in terms of this EI component than for the other components (e.g. emotional management) where further increases after the T2 testing could reasonably be expected as the skills are practiced and being mastered. Based on the results it is concluded that weak, partial support for Hypothesis 1 emerged.

**Table 4.9**

*Fixed effect test for Emotional Recognition and Expression (EREXP) over three testing times*

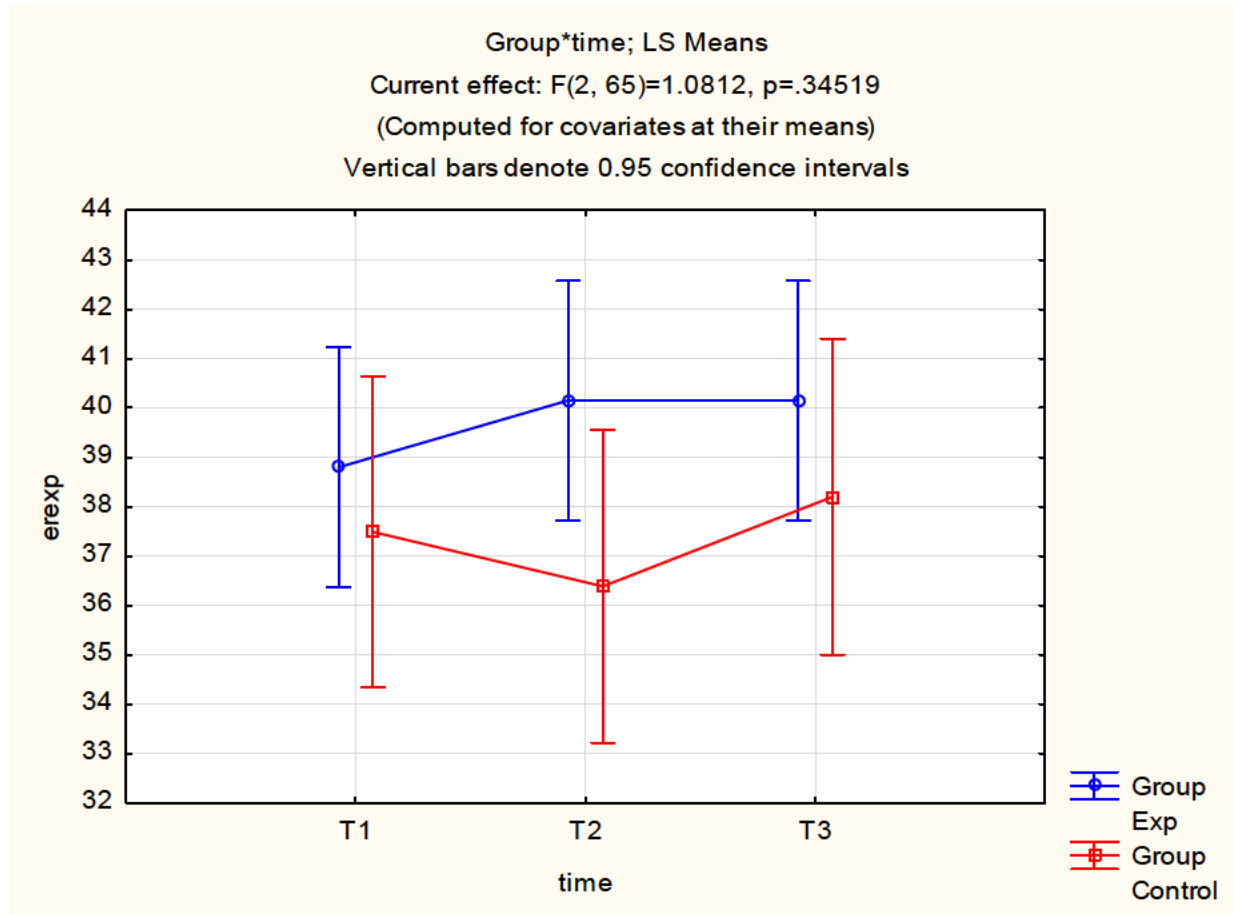
Fixed effect test for (EREXP) over three testing times				
Effect	Num. DF	Den. DF	F	p
JRSupport	1	65	14.803	0.000
Group	1	33	1.795	0.189
time	2	65	0.840	0.437
Group*time	2	65	1.081	0.345

**Table 4.10**

*Post hoc results for EREXP.*

Post Hoc Tests for EREXP								
Effect: Group*time								
Cell No.	Group	time	{1}	{2}	{3}	{4}	{5}	{6}
			<b>38.80</b>	<b>40.15</b>	<b>40.15</b>	<b>37.49</b>	<b>36.38</b>	<b>38.20</b>
1	Exp	T1		0.205	0.205	0.515	0.236	0.769
2	Exp	T2	0.205		1.000	0.188	0.066	0.339
3	Exp	T3	0.205	1.000		0.188	0.066	0.339
4	Control	T1	0.515	0.188	0.188		0.425	0.607
5	Control	T2	0.236	0.066	0.066	0.425		0.191
6	Control	T3	0.769	0.339	0.339	0.607	0.191	

**Note:**  $P < 0.05$  is significant



*Figure 4.2: EREXP as measured at T1, T2, and T3*

### 4.3.3 Results: Understanding Emotions of Others (external) (UEX)

Within the SUEIT EI model UEX is defined as the ability to identify and understand the emotions of others and those that manifest in external stimuli. Given that the same methodological limitations would apply to this analysis the non-significant total effect result for the group by time interaction for UEX (see table 4.11) was not surprising. A slight non-significant increase in UEX levels for the experimental group was observed from T1 to T2 (figure 4.3). An unexpected similar trend of a larger magnitude (although non-significant) was evident for the control group. Familiarity and awareness of the EI concepts from the pre-programme to the first post-programme testing may have introduced these changes (i.e. validity threat). However, no explanation as to why the magnitude of these changes is larger for the control group than in the experimental group can be provided. However, once again a clear consistent upward trend is evident in the experimental group scores. The results do

suggest that the experimental group members may have an advantage in understanding the emotional states of others compared to the respondents from the control group. No notable significant score differences were evident in group means from the post hoc tests. When the methodological limitations are taken into account it is concluded that only weak, partial support for hypothesis 1 emerged from the results.

**Table 4.11**

*Fixed effect test for Understanding Emotions of Others (External) (UEX) over three testing times*

Fixed effect test for (UEX) over three testing times				
Effect	Num. DF	Den. DF	F	p
JRSupport	1	65	3.072	0.084
Group	1	33	1.244	0.273
time	2	65	2.863	0.064
Group*time	2	65	0.376	0.688

**Note:**  $P < 0.05$  is significant

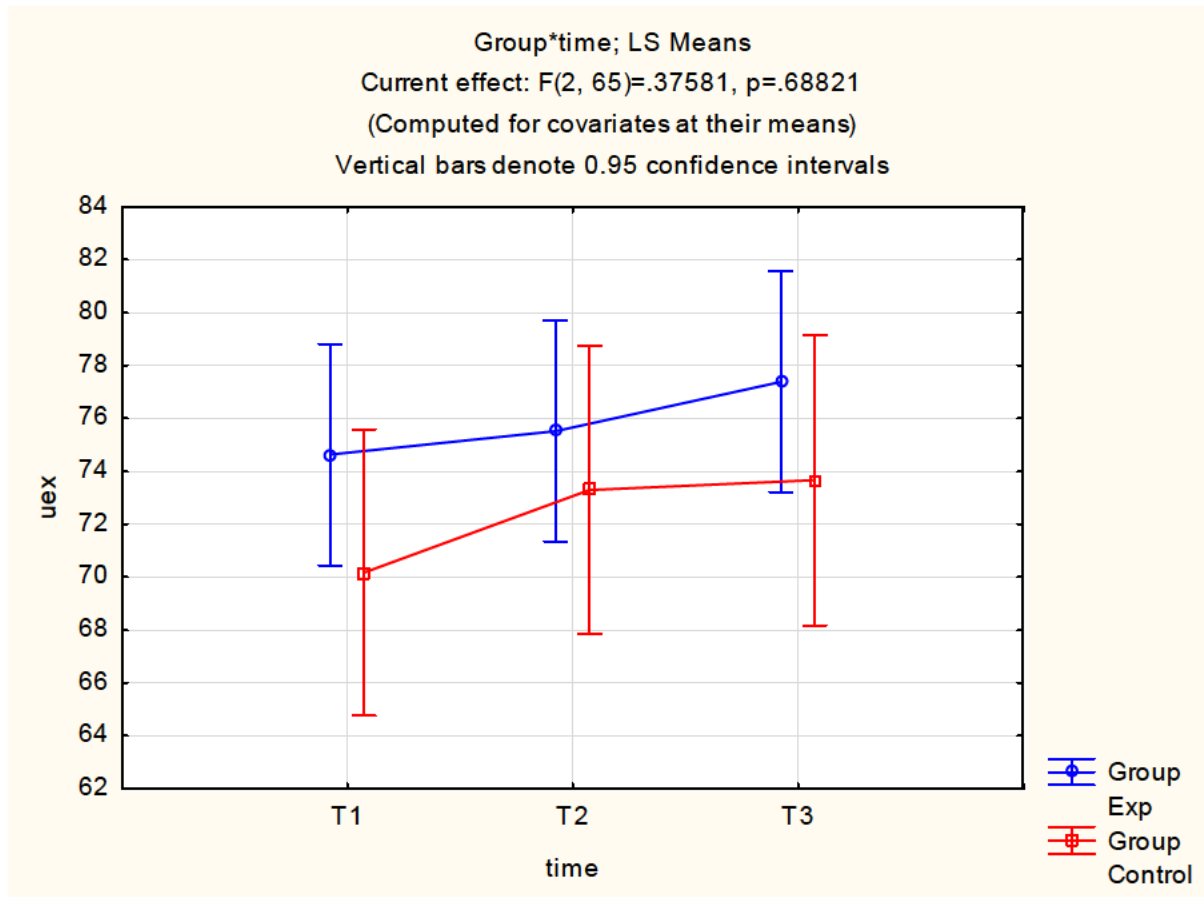
**Table 4.12**

*Post hoc results UEX.*

Post Hoc Tests for UEX								
Effect: Group*time								
Cell No.	Group	time	{1}	{2}	{3}	{4}	{5}	{6}
			74.64	75.53	77.39	70.18	73.30	73.67
1	Exp	T1		0.580	0.090	0.201	0.701	0.782
2	Exp	T2	0.580		0.248	0.125	0.522	0.595
3	Exp	T3	0.090	0.248		<b>0.040</b>	0.241	0.288
4	Control	T1	0.201	0.125	<b>0.040</b>		0.139	0.101
5	Control	T2	0.701	0.522	0.241	0.139		0.862
6	Control	T3	0.782	0.595	0.288	0.101	0.862	

**Note:**  $P < 0.05$  is significant





*Figure 4.3: UEX as measured at T1, T2, and T3*

#### 4.3.4 Results: Emotional Management (EM)

EM is defined as the ability to manage positive and negative emotions in oneself and others. For the purpose of this study, EM is probably the most important dimension as it enables individuals to maintain positive psychological states at work which was argued to possibly play a role in increased levels of work engagement, and ultimately commitment and satisfaction with work life. Consistent with the previous results the total effect for the group by time interaction for EM was non-significant (see table 4.13). However, the results shown in figure 4.4 revealed a clear trend that is consistent with the expectations for this research. A clear upward trend in EM scores was evident for the experimental group whilst no similar trend was observed in the control group data. Although non-significant, there was a slight increase for the experimental group from T1 to T2, suggesting an improvement in EM skills for the experimental group during this time period. As expected the control group data

reflected relatively stable scores from T1 to T2. In addition, a further increase in mean scores for the experimental group from T2 to T3 was evident, while a decrease was observed in the control group scores. EM is the dimension which is specifically affected by high stress levels (Palmer & Stough, 2001). It was previously noted in chapter 3 during the validity threats section that both groups were simultaneously exposed to similar workload pressures during assessment 3. It could be argued that when the control group members experienced the high stress period during assessment 3, their self reported EI skills for EM dropped. This is in contrast with what is observed in the experimental group data. Although exposed to the same work pressures, this group seemed to have increased in their EM scores. It appears as though they have learnt the ability to cope better with the emotional demands of the high stress environment, compared to the control group, and could even be experiencing more prolonged periods of positive affect.

These results, although non-significant, replicate previous trends (Burger, 2009; Görgens-Ekermans, & Swart, 2011; Görgens-Ekermans, 2011) and would suggest that EM could possibly be developed through an EI intervention. The post hoc results (table 4.14) also revealed a significant difference in mean scores ( $p = .022$ ) between T1 and T3 for the experimental group, further substantiating the abovementioned conclusion. It is concluded that partial, weak support for hypothesis 1 emerged from these results.

**Table 4.13**

*Fixed effect test for Emotional Management (EM) over three testing times*

Effect	Fixed effect test for (EM) over three testing times			
	Num. DF	Den. DF	F	p
JRSupport	1	65	3.444	0.068
Group	1	33	1.322	0.259
time	2	65	0.713	0.494
Group*time	2	65	1.692	0.192

**Note:**  $P < 0.05$  is significant

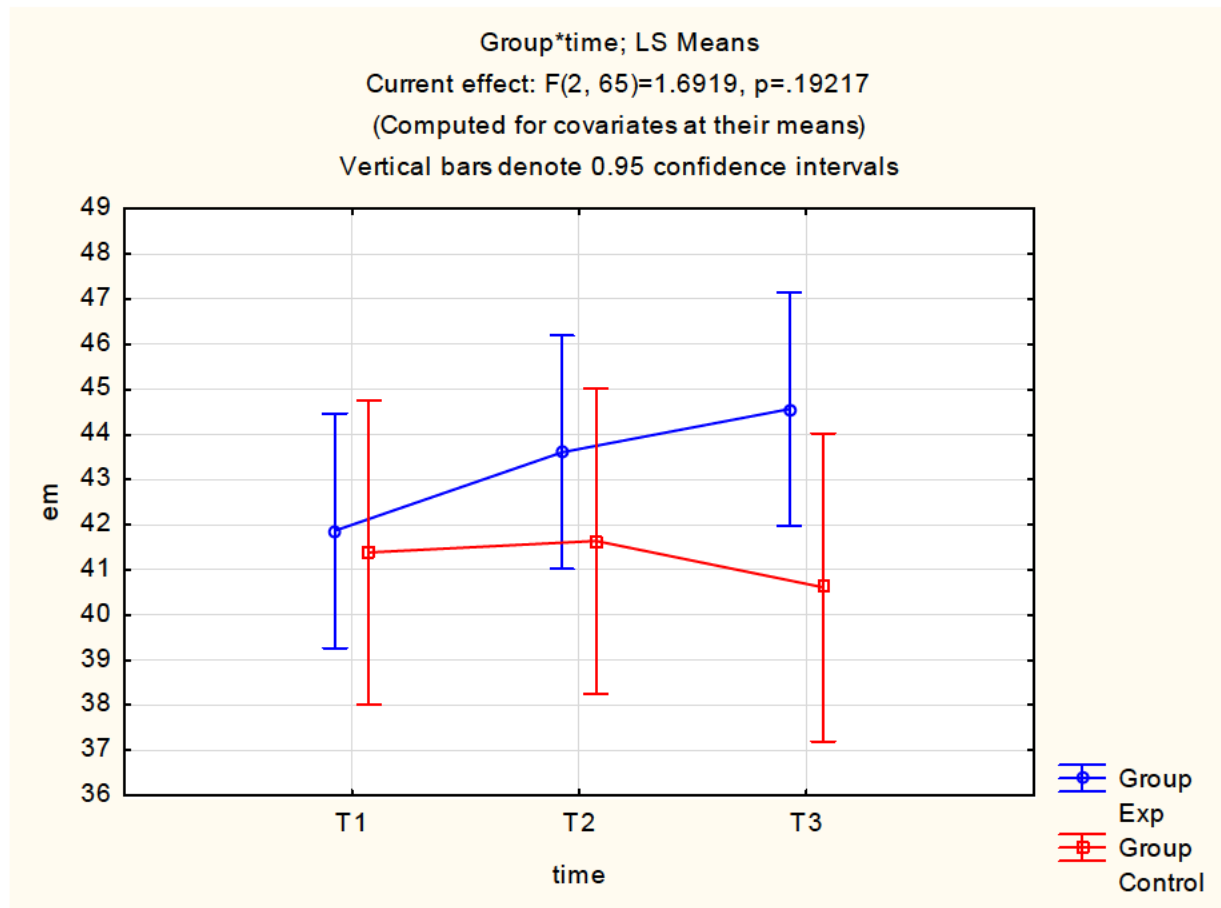


Figure 4.4: EM as measured at T1, T2, and T3

Table 4.14

Post hoc results for EM.

Post Hoc Tests for EM								
Effect: Group*time								
Cell No.	Group	time	{1}	{2}	{3}	{4}	{5}	{6}
			41.87	43.61	44.56	41.39	41.64	40.61
1	Exp	T1		0.135	<b>0.022</b>	0.823	0.916	0.567
2	Exp	T2	0.135		0.409	0.302	0.362	0.172
3	Exp	T3	<b>0.022</b>	0.409		0.142	0.178	0.073
4	Control	T1	0.823	0.302	0.142		0.867	0.610
5	Control	T2	0.916	0.362	0.178	0.867		0.497
6	Control	T3	0.567	0.172	0.073	0.610	0.497	

Note:  $P < 0.05$  is significant

#### 4.3.5 Results: Emotional Control (EC)

Within the SUEIT EI model, EC is defined as the ability to control strong emotional states experienced at work. Examples of these typical emotional states include anger, stress, anxiety and frustration (Palmer & Stough, 2001). The total effect for the group by time interaction for EC leaned towards a significant result (see table 4.15,  $p = .053$ ). Consistent with this the expected trends in the data from the two groups were evident (figure 4.5). Although non-significant, the experimental group reported an improvement in EC skills from T1 to T2. Control group scores actually decreased in this time period. Moreover, a further increase in experimental group scores was evident from T2 to T3, whilst the control group scores decreased further. These results replicate previous trends (Burger, 2009; Görgens-Ekermans, & Swart, 2011; Görgens-Ekermans, 2011) and would indicate that EC could possibly be developed through an EI intervention. The post hoc results (table 4.16) revealed a significant mean score difference for the experimental group from T1 to T3 ( $p = .022$ ). It is concluded that partial support for hypothesis 1 emerged from these results.

**Table 4.15**

*Fixed effect test for Emotional Control (EC) over three testing times*

Effect	Fixed effect test for (EC) over three testing times			
	Num. DF	Den. DF	F	p
JRSupport	1	65	5.158	0.026
Group	1	33	0.398	0.533
time	2	65	0.479	0.622
Group*time	2	65	3.072	0.053

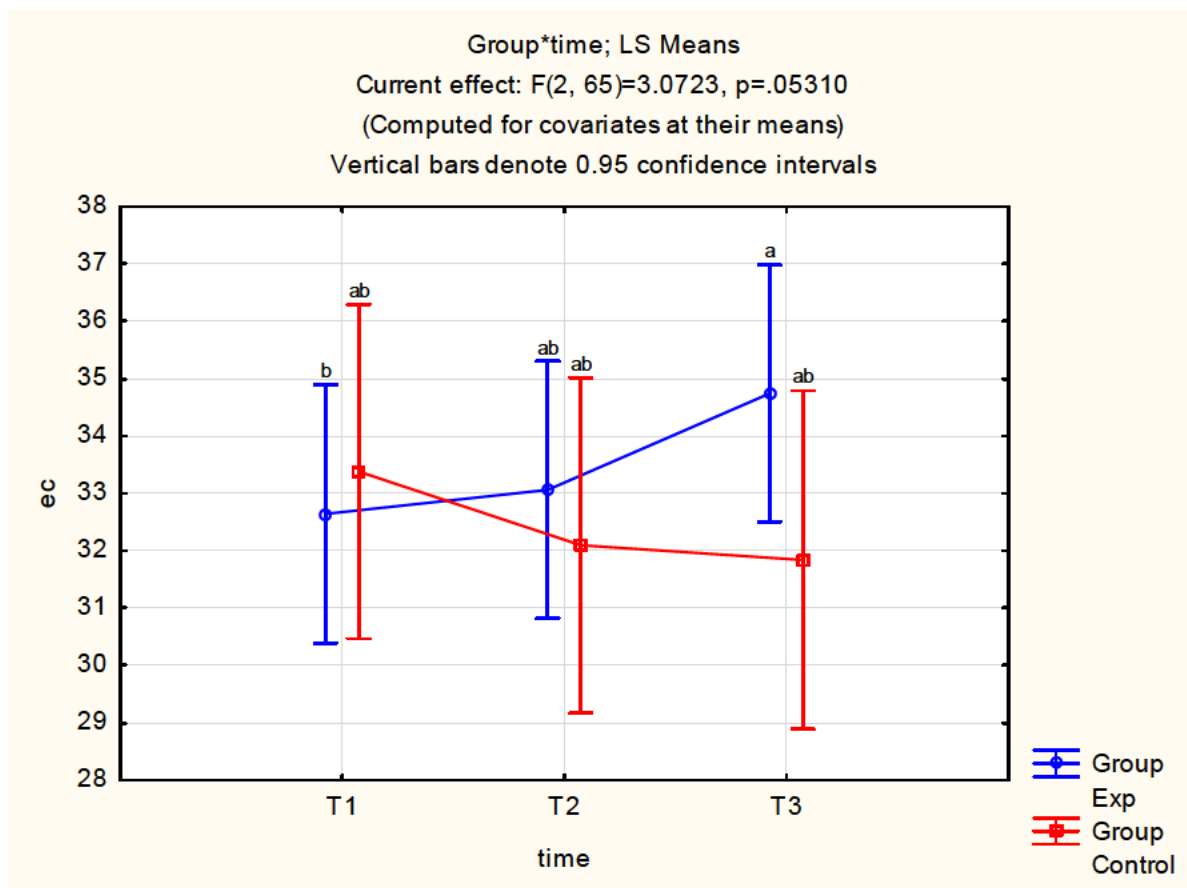
**Note:**  $P < 0.05$  is significant

**Table 4.16**

*Post hoc results for EC.*

Post Hoc Tests for EC								
Effect: Group*time								
Cell No.	Group	time	{1}	{2}	{3}	{4}	{5}	{6}
			32.64	33.06	34.76	33.38	32.10	31.84
1	Exp	T1		0.640	<b>0.022</b>	0.691	0.770	0.671
2	Exp	T2	0.640		0.065	0.863	0.604	0.516
3	Exp	T3	<b>0.022</b>	0.065		0.464	0.158	0.125
4	Control	T1	0.691	0.863	0.464		0.273	0.193
5	Control	T2	0.770	0.604	0.158	0.273		0.828
6	Control	T3	0.671	0.516	0.125	0.193	0.828	

**Note:**  $P < 0.05$  is significant



**Figure 4.5:** EC as measured at T1, T2, and T3

### **4.3.6 Work Engagement**

It was proposed that work engagement (total scores on sub-dimensions) will increase significantly following participation in the EI training programme. Work engagement as defined by Shaufeli et al. (2002) is “a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication, and absorption.” Vigour is characterised by high levels of energy and mental resilience while working, the willingness to invest effort in one’s work, and persistence even in the face of difficulty. Dedication refers to being strongly involved in one’s work and experiencing a sense of significance, enthusiasm, inspiration, pride, and challenge. Absorption is characterised by being fully concentrated and happily engrossed in one’s work, whereby time passes quickly and one has difficulties with detaching oneself from work (Shaufeli et al., 2002). It was argued that the development of EI would enable employees to manage their positive and negative emotions more effectively at work which could lead to experiencing more consistent and endearing positive psychological states at work, thereby facilitating improved levels of work engagement.

It was, therefore, expected that levels of work engagement (sub-dimension totals), would increase significantly for the experimental group from T1 to T2 following the intervention. Control group work engagement levels would either show a slight non-significant increase (due to a maturation effect) or remain stable. It was furthermore expected that self-reported work engagement levels would increase further, or remain stable for the experimental group from T2 to T3. This will indicate that further development has occurred over time. No significant change was expected for the control group in this period. The analyses were conducted on the separate work engagement sub-dimensions.

#### **4.3.6.1 Results: Vigour**

The ANOVA results are reflected in table 4.17 which shows the group time effect for Vigour over the three assessment periods. A graphical representation is provided in figure 4.6, comparing participants’ level of Vigour between the experimental and control groups over the three measurement points. Table 4.18 reflects the post hoc test results. The total effect for the group by time interaction for Vigour was non-significant (table 4.17). According to figure

4.6, Vigour increased slightly for the experimental group from T1 to T2. An unexpected (non-significant) similar trend was evident in the control group data possibly due to a test; retest effect (Babbie & Mouton, 2002). However, clear intercept differences were evident between the two groups. This result may reflect the fact that the line managers who selected potential candidates for the groups unintentionally selected less engaged employees or “problem staff” to be a part of the experimental group, hoping that the training would benefit their future performance.

Consistent with what would be expected, experimental group scores increased from T2 to T3, whereas control group scores slightly decreased in this time period. Results from the post hoc tests revealed (table 4.18) that the experimental group score differences from T1 to T3 leaned towards significance ( $p = .064$ ). Although there was a non-significant group by time effect, the trends in the data revealed that the experimental group in actual fact improved in vigour levels after the EI training – with no such effect evident in the control group. The results therefore suggest that members in the experimental group reported experiencing higher levels of energy in their work and investing more effort into their work, after the EI training. A further improvement was evident at the T3 testing. As expected, no similar trend was evident in the control group data. Based on the trends observed in the data, it is concluded that weak, partial support for hypothesis 2 emerged in this study.

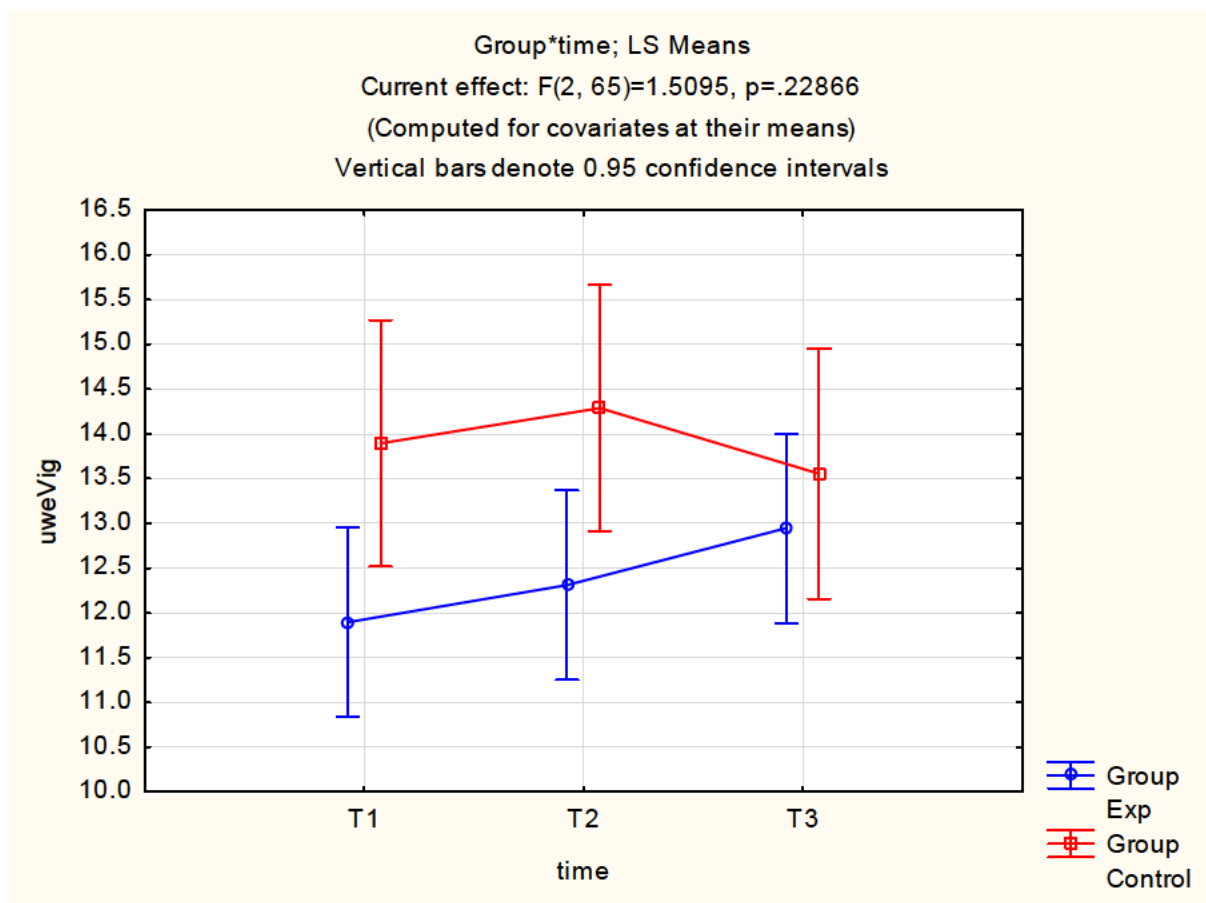
To the knowledge of the researcher no previous studies have investigated the effect of the development of personal resources (e.g. EI) aimed at improving levels of employee engagement at work. Although no statistically significant results were obtained related to the effects of the intervention on work engagement vigour levels, the trends in the data seem to suggest that further research in this domain may be warranted.

**Table 4.17**

*Fixed effect test for Vigour (Sub-dimension of Employee Engagement) over three testing times*

Fixed effect test for Vigour over three testing times				
Effect	Num. DF	Den. DF	F	p
JRSupport	1	65	22.526	0.000
Group	1	33	4.695	0.038
time	2	65	0.463	0.631
Group*time	2	65	1.510	0.229

**Note:**  $P < 0.05$  is significant



**Figure 4.6:** *Vigour as measured at T1, T2, and T3*



**Table 4.18***Post hoc results for Vigour*

Post Hoc Tests for Vigour								
Effect: Group*time								
Cell No.	Group	time	{1}	{2}	{3}	{4}	{5}	{6}
			<b>11.90</b>	<b>12.31</b>	<b>12.95</b>	<b>13.89</b>	<b>14.29</b>	<b>13.56</b>
1	Exp	T1		0.460	0.064	<b>0.026</b>	<b>0.009</b>	0.067
2	Exp	T2	0.460		0.258	0.075	<b>0.028</b>	0.165
3	Exp	T3	0.064	0.258		0.283	0.132	0.495
4	Control	T1	<b>0.026</b>	0.075	0.283		0.589	0.644
5	Control	T2	<b>0.009</b>	<b>0.028</b>	0.132	0.589		0.317
6	Control	T3	0.067	0.165	0.495	0.644	0.317	

Note:  $P < 0.05$  is significant

**4.3.6.2 Results: Dedication**

According to the authors of the UWES-9 (Schaufeli & Bakker, 2003, p5), dedication refers to, “being strongly involved in one’s work” and refers to whether an individual derives a sense of significance at work, whether they feel enthusiastic and proud of their job and whether they are inspired and challenged by their work. The results for the group by time effect is reported in table 4.19. The graphical representation is reflected in figure 4.7 which compares experimental and control group scores over the three measurement points. Finally, the post hoc results are shown in table 4.20.

The results revealed that the group by time effect for dedication was non-significant (table 4.19). Self-reported dedication levels increased slightly (a non-significant increase, table 4.20) for the experimental group from T1 to T2. Similar to the trend observed for the vigour sub-dimension, control group mean scores on dedication decreased in this time period. As expected, a further upward trend in the experimental group data was evident at the T3 testing, whilst the downward trend in the control group scores continued in this time period. The post hoc results revealed a significant mean score difference from T1 to T3 for the experimental group ( $p = .038$ ). Although the group by time interaction effect was non-significant this result suggests that experimental group mean scores in fact significantly increased between the first

and last testing times and may advocate that the intervention made some positive contribution to the development of dedication levels in the study.

The results revealed that members from the experimental group reported being more involved in their work and experienced higher levels of meaning and significance in their work, following the EI training, whereas control group levels decreased over time. These results could be interpreted to support the premise that by improving individuals' EM ability through the EI training, they may be better able to maintain positive psychological states at work, thereby increasing their levels of dedication at work. However, based on the results it is concluded that only weak, partial support for hypothesis 2 was obtained.

**Table 4.19**

*Fixed effect test for Dedication (Sub-dimension of Employee Engagement) over three testing times*

Fixed effect test for Dedication over three testing times				
Effect	Num. DF	Den. DF	F	p
JRSupport	1	65	12.883	0.000
Group	1	33	2.376	0.132
time	2	65	0.359	0.670
Group*time	2	65	1.709	0.189

**Note:**  $P < 0.05$  is significant

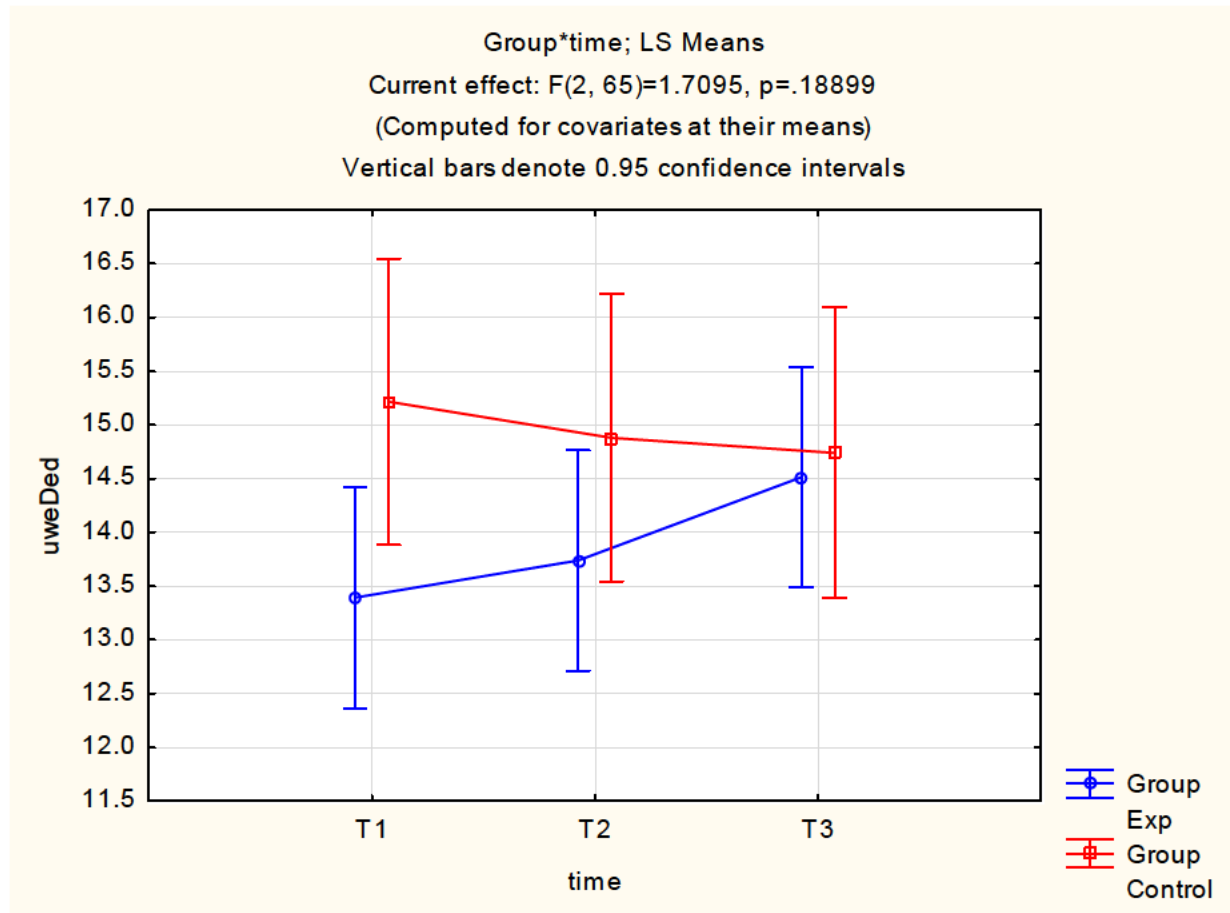


Figure 4.7: Dedication as measured at T1, T2, and T3

Table 4.20

Post hoc results for Dedication

Post Hoc Tests for Dedication								
Effect: Group*time								
Cell No.	Group	time	{1}	{2}	{3}	{4}	{5}	{6}
			13.39	13.74	14.51	15.22	14.88	14.74
1	Exp	T1		0.513	<b>0.038</b>	<b>0.035</b>	0.086	0.123
2	Exp	T2	0.513		0.148	0.085	0.184	0.248
3	Exp	T3	<b>0.038</b>	0.148		0.408	0.667	0.792
4	Control	T1	<b>0.035</b>	0.085	0.408		0.626	0.491
5	Control	T2	0.086	0.184	0.667	0.626		0.838
6	Control	T3	0.123	0.248	0.792	0.491	0.838	

Note:  $P < 0.05$  is significant

#### 4.3.6.3 Results: Absorption

As a sub-dimension of work engagement, absorption refers to a state of being happily engrossed in one's work. Individuals that experience high levels of absorption often report that the work time passes quickly and sometimes even experience difficulties with detaching themselves from work. The results revealed that the total effect for the group by time interaction for absorption was non-significant (table 4.21). Similar trends in terms of the results for the previous two engagement sub-dimensions were evident for this dimension. The control group once again reported higher baseline levels for absorption than the experimental group. As is visible from figure 4.8, experimental group scores increased slightly from T1 to T2, whilst a similar trend was evident for the control group. However, the experimental group scores remained stable from T2 to T3, whereas a dramatic decrease in mean level scores was evident for the control group in the same time period. These results replicated the trends observed in the data from the other sub-dimensions. The results suggest that the experimental group members were able to maintain their levels of concentration and the ability to be engrossed at work – even during the high / stressful workload period that both of the groups encountered during the T3 testing - whereas the control group members reported a decrease in their absorption levels.

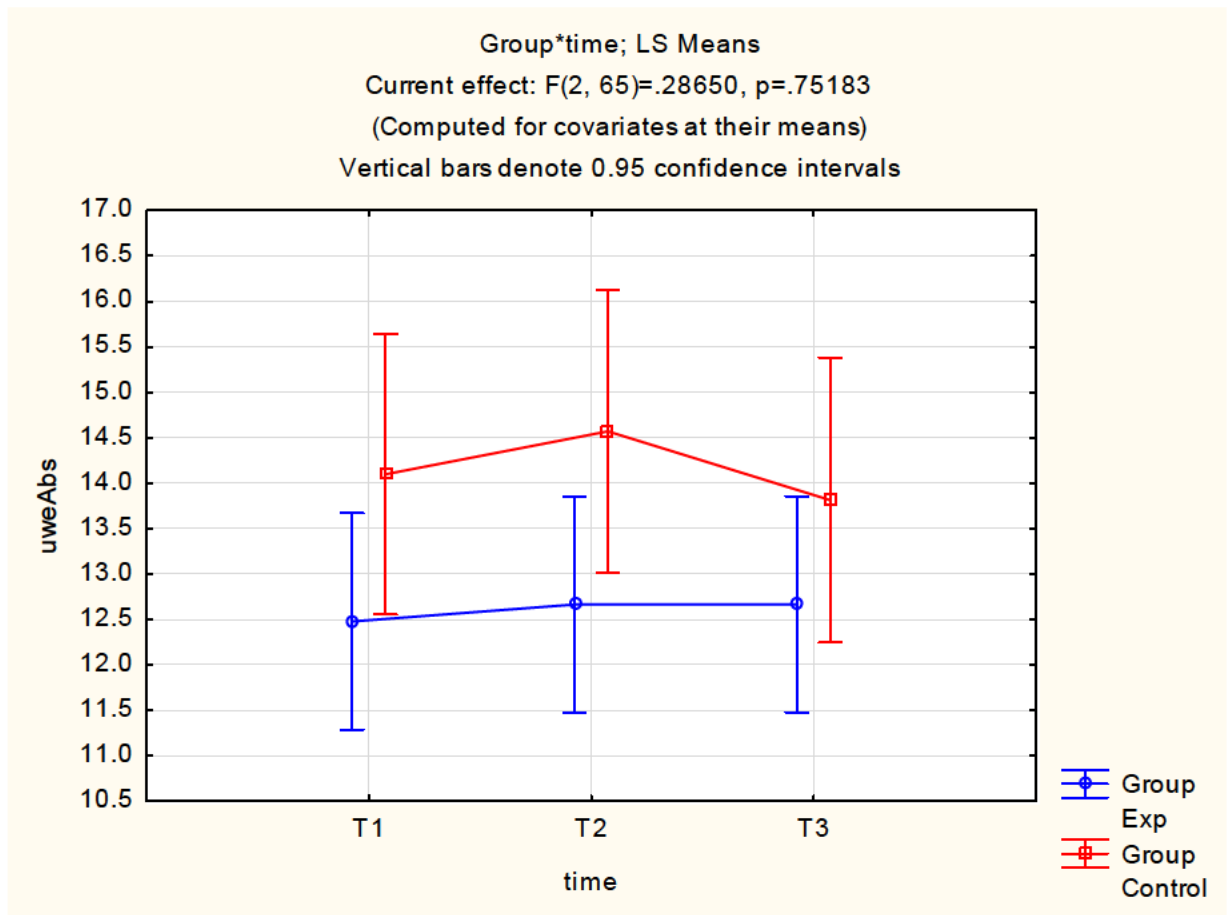
The post hoc results revealed no significant increases in absorption levels for the experimental group, although a slight upward trend in means scores is visible from T1 to T2. It could be argued that absorption, being a motivational component in work engagement, may be particularly difficult to influence with a developmental intervention focused only on emotions. It is likely that other constructs like interests, passion, and ability could also significantly impact on work engagement absorption levels. Further research is needed in this regard.

**Table 4.21**

*Fixed effect test for Absorption (Sub-dimension of Employee Engagement) over three testing times*

Fixed effect test for Absorption over three testing times				
Effect	Num. DF	Den. DF	F	p
JRSupport	1	65	0.075	0.784
Group	1	33	3.815	0.059
time	2	65	0.333	0.718
Group*time	2	65	0.287	0.752

**Note:**  $P < 0.05$  is significant



**Figure 4.8:** Absorption as measured at T1, T2, and T3

**Table 2.22*****Post hoc results for Absorption***

Post Hoc Tests for Absorption								
Effect: Group*time								
Cell No.	Group	time	{1}	{2}	{3}	{4}	{5}	{6}
			<b>12.48</b>	<b>12.67</b>	<b>12.67</b>	<b>14.10</b>	<b>14.57</b>	<b>13.81</b>
1	Exp	T1		0.762	0.762	0.104	<b>0.038</b>	0.186
2	Exp	T2	0.762		1.000	0.148	0.058	0.253
3	Exp	T3	0.762	1.000		0.148	0.058	0.253
4	Control	T1	0.104	0.148	0.148		0.558	0.723
5	Control	T2	<b>0.038</b>	0.058	0.058	0.558		0.348
6	Control	T3	0.186	0.253	0.253	0.723	0.348	

**Note:**  $P < 0.05$  is significant

#### **4.3.7 Results: Organisational Commitment (OC)**

It was expected that the level of Organisational Commitment (total score) would increase significantly following participation in the EI training programme. Organisational behaviour studies (Sholihin & Pike, 2010; Meyer & Allen, 1997) have found that organisational commitment is recognised as an important factor that positively influences employees' behaviour which is beneficial to organisations. Benefits include increased employee effort, performance, attendance, and retention. Organisational commitment is defined as "the relative strength of an individual's identification with and involvement in an organisation" (Mowday et al., 1982, p.26). It was argued that increased EI would lead to increased levels of positive psychological states experienced at work, which should impact positively on levels of organisational commitment. The results for the group by time effect are recorded in table 4.23. In figure 4.9, a graphical representation comparing the experimental and control groups' scores over the three measurement periods is shown, whilst the post hoc test results for OC is reflected in table 4.24.

The results revealed that the total effect for the group by time interaction for OC was significant (see table 4.23,  $p < .05$ ;  $p = .026$ ). However, this finding needs to be interpreted within the boundaries of the inconsistent pattern of results uncovered through subsequent

analyses. It was expected that the experimental group would increase in the self-reported levels of OC from T1 to T2 and that the control group scores would stay stable or fluctuate to some extent, due to unrelated effects (e.g. history). However, an unexpected significant decrease in OC scores (table 4.24;  $p = .006$ ) for the experimental group from T1 to T2 emerged. This irregularity in the results was investigated by considering the nature of the experimental and control group sample groups, as well as the circumstances surrounding the timing of the intervention. According to the departmental cross-tabulation (see table 4.4) close to one third of the experimental group participants (7 out of the 22 participants) were working in the sales department. During the last three weeks of the EI training it became evident through the group sessions that there was an escalating conflict situation within the sales department. This situation eventually resulted in the resignation of three of the sales team employees. All of them were part of the experimental group. It is proposed that this incident had a crucial impact on the morale of the existing sales employees. Naturally, many of these participants in the experimental group expressed general feelings of dissatisfaction and intention to quit attitudes – which is a natural consequence of the given situation. It is therefore argued that this incident may explain the inconsistent drop in OC levels from T1 to T2 for the experimental group.

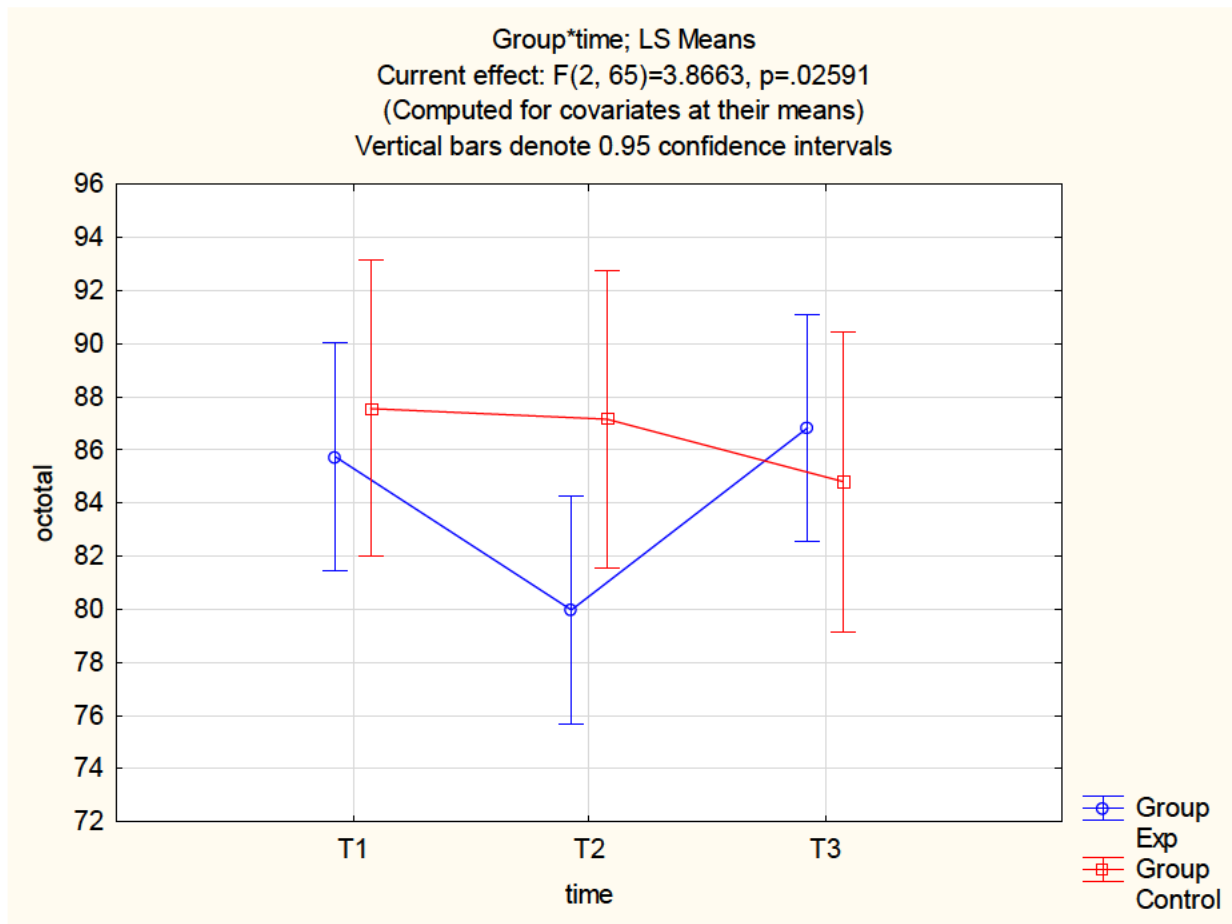
Figure 4.9 reflects a major improvement in OC levels for the experimental group from T2 to T3, whilst an opposite trend was evident for the control group. The post hoc results (table 4.24) revealed a significant difference in means ( $p = .001$ ) for the experimental group from T2 to T3. This result should be interpreted with caution as the increase was naturally inflated due to the inconsistent, large drop in scores reflected at the T2 measurement. Control group scores continued to drop during this time period. Although a plausible explanation for the inconsistent results could be provided, no conclusive evidence for the utility of the EI training to improve OC levels was provided through this research. Hypothesis 3 was not supported.

**Table 2.23**

*Fixed effect test for Organisational Commitment over three testing times*

Fixed effect test for Organisational Commitment over three testing times				
Effect	Num. DF	Den. DF	F	p
JRSupport	1	65	20.997	0.000
Group	1	33	0.600	0.444
time	2	65	1.845	0.166
Group*time	2	65	3.866	<b>0.026</b>

**Note:**  $P < 0.05$  is significant



**Figure 4.9:** OC as measured at T1, T2, and T3



**Table 4.24***Post hoc results of the ANOVA results for Organisational Commitment*

Post Hoc Tests for Organisational Commitment								
Effect: Group*time								
Cell No.	Group	time	{1}	{2}	{3}	{4}	{5}	{6}
			<b>85.75</b>	<b>79.97</b>	<b>86.83</b>	<b>87.56</b>	<b>87.16</b>	<b>84.81</b>
1	Exp	T1		<b>0.006</b>	0.596	0.612	0.694	0.794
2	Exp	T2	<b>0.006</b>		<b>0.001</b>	<b>0.036</b>	<b>0.047</b>	0.182
3	Exp	T3	0.596	<b>0.001</b>		0.838	0.927	0.574
4	Control	T1	0.612	<b>0.036</b>	0.838		0.880	0.303
5	Control	T2	0.694	<b>0.047</b>	0.927	0.880		0.376
6	Control	T3	0.794	0.182	0.574	0.303	0.376	

**Note:**  $P < 0.05$  is significant

### 4.3.8 Results: Satisfaction with Work Life (SWWL)

The final hypothesis (hypothesis 4) stated that satisfaction with work life (total score) will increase significantly following participation in the EI training programme. The SWWL measure has been adapted using the Diener et al. (1985) theoretical framework of the Satisfaction with Life Scale (SWLS). Life Satisfaction was replaced with Work Satisfaction. According to Diener et al. (1985, p.71) “life satisfaction refers to a cognitive judgemental evaluation of one’s life” and is considered to be one component of subjective well-being. Hence, SWWL refers to a cognitive evaluation of one’s work life. In order to create a positive psychological state at work, it was argued that by developing an employees’ EI skills (especially emotional management and control), employees should be better able to manage their positive and negative emotional experiences at work, leading to higher levels of satisfaction with work life. The results for the group by time effect is reflected in table 4.25. Furthermore, a graphical representation comparing the experimental and control group scores over the three testing periods can be viewed in figure 4.10 and finally the post hoc test results is depicted in table 4.26.

The total effect for the group by time interaction for SWWL was non-significant (see table 4.25). Despite this result figure 4.10 revealed a very favourable picture of the trends evident

from the data of the experimental and control groups. The experimental group's mean scores improved slightly (non-significant) from T1 to T2. No similar trend was evident for the control group. This may suggest that the EI intervention could have had a limited weak positive impact on the improvement of SWWL scores in the experimental group. A further upward trend in the scores was evident from T2 to T3 (although non-significant). However, the post hoc results revealed that the T1 to T3 experimental group change was marginally significant ( $p = .051$ , table 4.26). No similar pattern (i.e. continuous upward trend) was evident in the control group data. Despite the non-significant group by time interaction effect results, which strictly indicates a rejection of hypothesis 4, it is argued that the trends depicted in figure 4.10 could be interpreted as weak, partial support for hypothesis 4.

**Table 4.25**

*Fixed effect test for Satisfaction with Work Life over three testing times*

Fixed effect test for Satisfaction With Work Life over three testing times				
Effect	Num. DF	Den. DF	F	p
JRSupport	1	65	40.994	0.000
Group	1	33	0.038	0.847
time	2	65	0.804	0.452
Group*time	2	65	1.292	0.282

**Note:**  $P < 0.05$  is significant

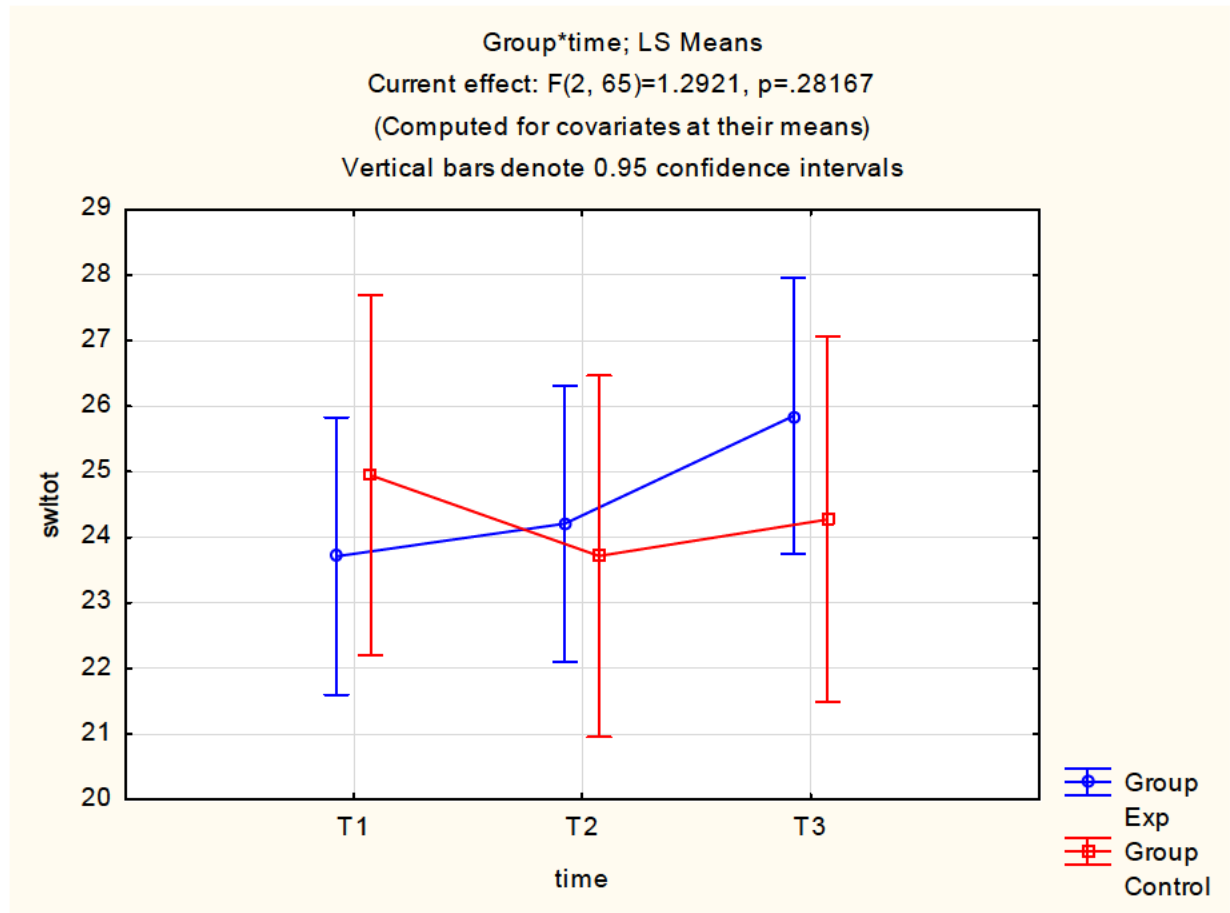


Figure 4.10: SWWL as measured at T1, T2, and T3

Table 4.26

Post hoc results for Satisfaction with Work Life

Post Hoc Tests for Satisfaction With Work Life								
Effect: Group*time								
Cell No.	Group	time	{1}	{2}	{3}	{4}	{5}	{6}
			23.71	24.21	25.85	24.95	23.71	24.27
1	Exp	T1		0.644	<b>0.051</b>	0.482	0.999	0.753
2	Exp	T2	0.644		0.132	0.674	0.778	0.972
3	Exp	T3	<b>0.051</b>	0.132		0.607	0.228	0.377
4	Control	T1	0.482	0.674	0.607		0.380	0.633
5	Control	T2	0.999	0.778	0.228	0.380		0.690
6	Control	T3	0.753	0.972	0.377	0.633	0.690	

Note:  $P < 0.05$  is significant

#### 4.4 RESULTS: CORRELATIONS

The second objective of the research was to replicate previous research on the inter-relationships between EI, work engagement, organisational commitment and satisfaction with work life. A correlation is a measure of the linear relationship between variables. For the purpose of this research, Spearman's correlation coefficient,  $r$ , was utilised. According to Field (2005) Spearman's correlation coefficient is a non-parametric statistic which can be used when data have violated parametric assumptions, such as non-normally distributed data. It is also commonly used for small sample sizes – as was the case in this research. Spearman's test works by first ranking the data, and then applying Pearson's equation to those ranks. The convention proposed by Guilford (as cited in Tredoux & Durrheim, 2002, p. 184) as depicted in table 4.27 was used to interpret the magnitude of all the sample correlation coefficients.

**Table 4.27**

*Guilford's interpretation of the magnitude of significant  $r$*

Absolute Value of $r$	Interpretation
<0.19	Slight; almost no relationship
0.20 – 0.39	Low correlation; definite but small/weak relationship
0.40 – 0.69	Moderate correlation; substantial relationship
0.70 – 0.89	High correlation; strong relationship
0.90 – 1.00	Very high correlation; very dependable relationship

##### 4.4.1 Correlation results: EI and WE

It was hypothesised (hypothesis 5) that significant positive relationships would exist between total EI (as well as the 4 EI sub-dimensions) as measured by the SUIET (Palmer & Stough, 2001) and work engagement (scores on the three sub-dimensions, as measured by the Utrecht Work Engagement Scale, UWES-9; Schaufeli & Bakker, 2003) at measurement times 1, 2 and 3. Table 4.28 presents the study's findings in terms of the relationships between total EI and the three sub-dimensions of work engagement.

**Table 4.28***Correlations between Total EI and Work Engagement (three sub-dimensions)*

	T1uweVig	T1uweDed	T1uweAbs
<b>T1EItotal</b>	.090	.206	<b>.338*</b>
<b>T2EItotal</b>	.260	.238	.191
<b>T3EItotal</b>	<b>.377*</b>	<b>.434**</b>	.028

**Note:** T1uweVig – Time one assessment for the Vigour dimension of work engagement scale; T1uweDed – Time one assessment for the Dedication dimension of work engagement scale; T1uweAbs – Time one assessment for the Absorption dimension of work engagement scale. T1EItotal – Time one assessment for total EI; T2EItotal – Time two assessment for total EI; T3EItotal – Time three assessment for total EI

The initial T1 assessment revealed a definite but small correlation between total EI and Absorption ( $r = .338, p < .05$ ), however this result was not replicated at the T2 or T3 testing and needs to be interpreted with caution. The result would suggest that individuals, who report higher levels of EI, would most likely report higher levels of absorption. In other words, employees who reported being able to recognize, manage and control their emotions more effectively (before the EI training) also were likely to report having the ability to concentrate better at work where they found themselves happily engrossed in their work. It could be argued that when employees are able to manage their emotions more effectively, they will be less likely to be distracted by emotional triggers which enable them to be fully consumed by their work. The fact that this relationship only emerged at the T1 assessment of the study, means that more research will be required in order to confirm that this relationship between total EI and absorption is stable and reliable.

The T3 correlation results revealed that a significant relationship emerged between total EI and vigour ( $r = .377, p < .05$ ) even though this correlation was not evident at the T1 or T2 testing. This indicates that individuals who reported higher levels of total EI at T3 also reported higher levels of vigour experienced in their work. Explained differently, employees who reported being able to recognize, manage and control their emotions more effectively also reported having higher levels of energy and mental resilience while working. Based on this it could be argued that when employees develop skills to manage and control their emotions more effectively, this inevitably may lead to a more positive psychological state

leading to higher levels of energy and mental resilience. Bakker and Demerouti (2008) confirmed that engaged employees often experience positive emotions and further argued that this could be the reason why they actually perform better

Evidence of a positive moderate correlation between total EI and dedication ( $r = .434, p < .01$ ) was also obtained at the T3 assessment although this relationship, once again did not emerge at any of the previous testing times. This result suggests that individuals who reported higher levels of total EI also reported higher levels of dedication. Employees who reported being able to recognize, manage and control their emotions more effectively, also reported feeling strongly involved in their work at that specific time and reported that they experienced meaning and enthusiasm pertaining to their work. It would seem that by being effective in regulating emotions and maintaining a positive psychological state at work, employees are able to remain optimistic about their work and reflect on the positive aspects thereby creating meaning and enthusiasm regarding their work. However, in order to substantiate the reliability of these relationships (EI and vigour and EI and dedication), further research would be necessary.

**Table 4.29**

*Correlations between Sub-dimensions of EI and Work Engagement Sub-dimensions*

	EREXP	UEX	EM	EC
<b>T1uweVig</b>	.155	-.121	.276	.236
<b>T1uweDed</b>	.168	.035	<b>.306*</b>	<b>.346*</b>
<b>T1uweAbs</b>	<b>.327*</b>	<b>.347*</b>	.148	.155
<b>T2uweVig</b>	-.013	.165	<b>.318*</b>	<b>.341*</b>
<b>T2uweDed</b>	-.050	.165	<b>.323*</b>	.251
<b>T2uweAbs</b>	-.148	.207	.196	.139
<b>T3uweVig</b>	<b>.336*</b>	.211	<b>.387*</b>	<b>.387*</b>
<b>T3uweDed</b>	<b>.343*</b>	<b>.404**</b>	<b>.360*</b>	<b>.331*</b>
<b>T3uweAbs</b>	-.031	.102	-.059	-.020

**Note:** EREXP - Emotional recognition and expression; UEX - Understanding others emotions (external); EM - Emotional management; EC – Emotional control; T1uweVig – Time one assessment for the Vigour dimension of work engagement scale; T1uweDed – Time one assessment for the Dedication dimension of work engagement scale; T1uweAbs – Time one assessment for the Absorption dimension of work engagement scale

Breaking down total EI into the different dimensions provides a more detailed account of the significant relationships between EI and work engagement. Four significant relationships at the T1 measurement could be identified. The first significant relationship was between emotional management (EM) and dedication ( $r = .306, p < .05$ ). Although a relatively weak relationship the result suggests that individuals, who reported high levels of emotional management, were likely to report higher levels of dedication. This suggests that employees who are better able to manage their positive and negative emotions at work are likely to report feeling more involved in their work and are more likely to create meaning and find enthusiasm for the roles and responsibilities they have at work. This relationship was replicated at the T2 ( $r = .323, p < .05$ ) and T3 ( $r = .360, p < .05$ ) measurements and the magnitude of the relationship stayed more or less the same over the three assessments periods. Hence, there appears to be a reliable association between these two variables.

Furthermore, at the T1 assessment a significant small positive relationship between emotional control (EC) and dedication ( $r = .346, p < .05$ ) emerged. This would suggest that employees who have the ability to control strong emotional states experienced at work may be more likely to report being more easily inspired and challenged by their work. This makes sense as it could be argued that the ability to control strong emotional states should assist an employee in remaining focused and dedicated to their work. Surprisingly, there was no positive relationship found at T2, but at T3 ( $r = .331, p < .05$ ) a similar result emerged.

The further two significant results from the T1 testing are between EI sub-dimensions EREXP ( $r = .327, p < .05$ ) and UEX ( $r = .347, p < .05$ ) and the absorption sub-dimension of work engagement. However, it is entirely possible that these correlations emerged due to chance as they were not replicated at the T2 or T3 testing. These relationships therefore need to be treated with caution as no evidence of consistency in the relationship between EREXP, UEX and absorption was found over the three assessment periods in this study. More replication would be needed in this regard to establish the consistency of the nature of the relationships between these variables.

Significant relationships were, however, found between EM and vigour at T2 ( $r = .318, p < .05$ ) and T3 ( $r = .387, p < .05$ ). This replicated result indicates that individuals who reported higher levels of managing their positive and negative emotions at work were more likely to experience higher levels of energy and mental resilience at work. It has been argued in this study that in order to stay more positive and have increased levels of energy, employees would have to develop their ability to manage their emotional states at work. In doing so, a greater amount of time would be spent in positive psychological states which could lead to increased levels of energy and resilience applied at work. Hence, the current results would suggest that higher EM levels could play an important role in this important engagement dimension of vigour.

A significant relationship was also found between EC and vigour at T2 ( $r = .341, p < .05$ ). It is evident from the results that a small positive relationship exists between these two variables. Individuals who reported having a higher ability in controlling strong emotional states at work is more likely to report increased levels of energy and mental resilience at work. This makes sense as it could be argued that in order for a person to maintain mental resilience at work, it would be crucial to be able to manage higher charged emotional states at work (for example, like anger or frustration). Moreover, this relationship trend was repeated at T3 ( $r = .387, p < .05$ ) with a similar degree in strength.

More positive significant relationships emerged at the T3 testing. The results reflected seven significant relationships between the EI dimensions and work engagement sub-dimensions. Four of these relationships, mentioned above, were between EM and vigour, EM and dedication, EC and vigour, and EC and dedication. These associations remained stable over measurement times 2 and 3, suggesting a moderate stability of association between these variables. These results would seem to emphasize the importance of the emotional regulation component of EI (encapsulated in the EM and EC dimensions) in self-reported engagement. Emerging as new significant relationships at T3, a significant positive relationship was evident between EREXP and vigour ( $r = .336, p < .05$ ). Although a relatively weak relationship, this result suggests that individuals who scored higher on the EREXP dimension were likely to score higher on the vigour sub-dimension. Employees who were better able to



recognize and express their emotions two and a half months after the EI training were more likely to develop higher levels of energy and mental resilience at work. It could be argued that as employees develop their EREXP skills they become better at identifying and expressing their emotions at work which could improve interrelations between colleagues and help them cope better with challenges at work. This in itself can lead to higher levels of resilience and energy at work. This correlation should be treated with caution as it was not replicated at T1 and T2. It could be argued that EREXP may take a while to develop; hence the correlation only emerging at the T3 testing.

Dedication was found to be inter-related with all the EI sub-dimensions at T3. A significant positive relationship was evident between EREXP and dedication ( $r = .343, p < .05$ ). Evidence of a definite but small relationship between the two variables existed. This means that individuals who reported higher levels of being able to recognize and express their emotions at work were more likely to report being more involved in their work, experiencing increased enthusiasm for their work tasks. In order to understand the association between these two variables, one could argue that by developing one's EREXP skills, it becomes easier to tap into the emotional components of work tasks which could enable respondents to convert this ability into a form of enthusiasm for their work. The stability of this relationship needs to be treated with caution as it was not replicated at T1 or T2. Another significant moderate positive relationship emerged between UEX and dedication ( $r = .404, p < .01$ ). This implies that employees who reported higher levels of understanding others' emotions at work were likely to report higher levels of work involvement and enthusiasm for work tasks. Employee's who are better able to understand the emotions of others and pick up on emotional undertones during challenging situations at work would be in a better position to respond appropriately to crises or challenges which can create an environment where he / she can be more involved in their work tasks, leading to increased levels of enthusiasm. However, this result has to be considered with caution as it was not replicated at testing times T1 and T2. More research is required in this regard.

From the results it can be deduced that the most stable relationship that emerged was between EM and dedication as it was reflected as positively significant at all three assessment periods. The correlations, although low to moderate appears to be fairly stable. To further explain this

stable correlation between these two variables, it could be argued that the dedication dimension of work engagement taps more into the affective / emotional component of engagement than the other two dimensions of vigour and absorption. Being involved and enthusiastic about one's work requires a positive emotional response from the employee. In order for this to occur, the individual must have the ability to regulate their positive and negative emotional states (the EM component of EI). The uniqueness of the current study is that no notable South African studies, to the knowledge of the author, have investigated the link between EI and work engagement and for that reason the findings reported here are exploratory in nature. The findings of this study indicate evidence of associations between the EI and work engagement variables and therefore lay the foundation for future research. The current results partially confirm hypothesis 5.

#### 4.4.2 Correlation Results: EI and Organisational Commitment

In hypothesis 6 it was proposed that significant positive relationships would exist between total EI (as well as the 4 EI sub-dimensions) as measured by the SUIET (Palmer & Stough, 2001) and total organisational commitment (as measured by the Organisational Commitment Questionnaire, OCQ; Mowday et al., 1979) at T1, T2, and T3. Table 4.30 reflects the inter-relationships between total EI and organisational commitment obtained in this study.

**Table 4.30**

*Correlations between Total EI and Organisational Commitment*

	T1EItotal	T2EItotal	T3EItotal
T1octotal	<b>.397*</b>		
T2octotal		<b>.396*</b>	
T3octotal			<b>.465**</b>

**Note:** T1EItotal – Time one assessment for total EI; T2EItotal – Time two assessment for total EI; T3EItotal – Time three assessment for total EI; T1 ototal – Time one assessment for total organisational commitment; T2octotal – Time two assessment for total organisational commitment; T3octotal – Time three assessment for total organisational commitment.

As expected, significant positive relationships emerged during each assessment phase between total EI and organisational commitment. The magnitude of the correlations stayed fairly stable over the three assessment times. Overall the results seemed to suggest that a small to moderate positive association between total EI and organisational commitment is evident. This suggests that employees who reported higher levels of EI were likely to report that they accept the organisation's goals better; they would probably work harder for the organisation and would report a stronger desire to want to stay with the organization. These results replicated previous studies (Nikolaou & Tsaousis, 2002; Gardner, 2005; Burger, 2009; Carmeli, 2003; and Guleryuz et al, 2008) that a significant positive relationship correlation exists between EI and OC.

**Table 4.31***Correlations between sub-dimensions of EI and Organisational Commitment*

	T1octotal	T2octotal	T3octotal
<b>T1EREXP</b>	<b>.357*</b>		
<b>T1UEX</b>	.169		
<b>T1EM</b>	<b>.329*</b>		
<b>T1EC</b>	<b>.300*</b>		
<b>T2EREXP</b>		.094	
<b>T2UEX</b>		<b>.313*</b>	
<b>T2EM</b>		<b>.413**</b>	
<b>T2EC</b>		<b>.371*</b>	
<b>T3EREXP</b>			<b>.339*</b>
<b>T3UEX</b>			.225
<b>T3EM</b>			<b>.614**</b>
<b>T3EC</b>			<b>.417**</b>

**Note:** T1octotal – Time one assessment for total organisational commitment; T2octotal – Time two assessment for total organisational commitment; T3octotal – Time three assessment for total organisational commitment; T1EREXP – Time one assessment for emotional recognition and expression; T1UEX – Time one assessment for understanding others emotions; T1EM – Time one assessment for emotional management; T1EC – Time one assessment for emotional control; T1 – Time one assessment; T2 – Time two assessment; T3 – Time three assessment.

A more detailed description of the nature of the EI and organisational commitment association can be gained by inspecting the pattern of correlations that emerged at the sub-dimensional level. At T1 a significant positive relationship was found between EREXP and OC ( $r = .357, p < .05$ ). Although a low correlation, the result suggests that individuals who reported higher levels of being able to recognise and express their emotions in an appropriate manner at work were more likely to report higher levels of OC. It could be argued that employees who are able to express their feelings appropriately in the workplace would be better able to deal with difficulties at work as they would experience more support from their colleagues as a result of better interpersonal relationships through their improved ability to communicate better at an emotional level. This in itself should create a more conducive environment to be productive and involved in the organisation. Although not replicated at the T2 testing, this relationship was replicated at the T3 assessment (with a fairly similar magnitude). Therefore, it may be argued that a fairly reliable relationship is evident between these constructs. It could be argued that the T2 OC testing challenges encountered (due to major organisational conflict experienced at that point in time) could have influenced the T2 result.

A positive significant relationship emerged between EM and OC ( $r = .329, p < .05$ ) at the T1 testing. The small but definite relationship suggests that individuals who reported higher levels of being able to manage their positive and negative emotions at work were more likely to identify with, and involve themselves with the organisation. It would seem that having the ability to regulate your emotions at work could lead to a positive psychological state which could help the employee remain optimistic towards the organisation. This should result in higher levels of OC. The significant positive relationship between EM and OC was replicated at T2 ( $r = .413, p < .01$ ) and the correlation is more or less the same range as the T1 correlation according to the Guildford convention. The correlation was further replicated at T3, where EM and OC increased to a substantive relationship ( $r = .614, p < .01$ ). This would suggest a stable and reliable relationship between the two variables.

The other significant positive relationship that emerged at T1 was between EC and OC ( $r = .300, p < .05$ ). Although a weak relationship, the result revealed that employees who reported

higher levels of the ability to control strong emotional states at work were more likely to report higher levels of OC. When an employee experiences a strong emotional reaction like anger and resentment at work and is unable to deal with that emotion, it could be argued that it may damage long term relationships and lead to less social support experienced at work. This may, in the long run, lead to a less favourable work place environment and possibly increase intention to quit (ITQ) attitudes. This result suggests that individuals who are able to control these powerful emotional states at work would report higher levels of OC. A component of OC is the desire to stay with the organisation. By developing the EC skills of employees, this could be associated with an increased desire to stay with the organisation. A similar trend was found for EC and OC at T2 ( $r = .371, p < .05$ ). The relationship between EC and OC further improved to a moderate correlation ( $r = .417, p < .01$ ) at T3. Due to the correlation being replicated at all three assessment periods, it could be argued that this points towards a stable association between these variables.

A significant positive relationship emerged between UEX and OC ( $r = .313, p < .05$ ) at T2. Despite being a low correlation, the result indicates that individuals who reported having a higher level of understanding of others' emotions in the workplace were more likely to report higher levels of OC. It could be argued that if an employee has the ability to understand the emotional undertones of the work environment and emotional reactions of others within the organisation, then he or she can be more understanding and empathetic during organisational conflict, thereby creating a more conducive workplace climate, where conflict can be resolved effectively. The current authors would argue that this ability will increase commitment to the organisation. This association between UEX and OC is unstable as it was not replicated at T1 and T3 and therefore needs to be treated with extreme caution (also due to the measurement problem encountered at the T2 testing).

All the above mentioned results suggest that the more employees' develop these EI skills, the more their perceived self-report levels of OC towards the organisation increased. These findings support previous research (e.g. Gardner, 2005; Nikolaou and Tsaousis 2002; Carmeli, 2003) where significant positive relationships between EI and OC were reported. Partial support for hypothesis 6 emerged from the current results. It would also appear that

EM and EC are the most important EI dimensions in relation to OC, as these associations were replicated at all three assessment phases.

#### 4.4.3 Correlations Results: EI and Satisfaction with Work Life

Hypothesis 7 proposed that significant positive relationships would exist between total EI (as well as the 4 EI sub-dimensions) as measured by the SUIET (Palmer & Stough, 2001) and satisfaction with work-life (as measured by the adapted version of the Satisfaction with Life Scale, SWLS; Diener et al., 1985) at T1, T2, and T3. Table 4.32 presents the correlations between total EI and Satisfaction with Work Life (SWWL) over the three assessment periods.

**Table 4.32**

*Correlations between Total EI and Satisfaction with work life*

	T1EItotal	T2EItotal	T3EItotal
T1swltot	.037		
T2swltot		.278	
T3swltot			.404*

**Note:** T1EItotal – Time one assessment for total EI; T2EItotal – Time two assessment for total EI; T3EItotal – Time three assessment for total EI; T1swltot – Time one assessment for total satisfaction with work life; T2swltot – Time two assessment for total satisfaction with work life; T3swltot – Time three assessment for total satisfaction with work life.

No significant relationships were found between total EI and SWWL at the T1 (before the intervention) and T2 (immediately after the intervention) assessments. However, at the T3 testing a moderate correlation emerged between the two variables ( $r = .404$ ,  $p < .05$ ). This result indicates that individuals who reported higher levels of being able to recognize, manage and control their emotions more effectively at work were likely to experience a greater level of satisfaction with their work life. This result, should, however be interpreted with caution as it was not replicated at the other measurement times. More research would be required to confirm the stability of the association between these two variables. However, previous research studying the correlations between EI and life satisfaction shows favourable results that significant positive relationships exist between the two (Palmer et al, 2002;

Extremera & Fernandez-Berrocal, 2005; Gannon & Ranzijn, 2004; Gignac, 2006). Taking these previous findings into account, it could be argued that one could expect these variables to be related. Table 4.33 provides a more detailed overview of the nature of the relationships between the sub-dimensions of EI and SWWL over the three testing periods. Given that no significant correlation between total EI and SWWL emerged for the T1 and T2 testing, only the T3 testing results are listed in this table.

**Table 4.33**

*Correlations between sub-dimensions of EI and Satisfaction with work life*

	T1swltot	T2swltot	T3swltot
T3EREXP			.388*
T3UEX			.183
T3EM			.346*
T3EC			.301*

**Note:** T1swltot – Time one assessment for total satisfaction with work life; T2swltot – Time two assessment for total satisfaction with work life; T3swltot – Time three assessment for total satisfaction with work life; T3EREXP – Time three assessment for emotional recognition and expression; T3UEX – Time three assessment for understanding others emotions; T3EM – Time three assessment for emotional management; T3EC – Time three assessment for emotional control

A significant positive relationship was found between EREXP and SWWL ( $r = .388, p < .05$ ). Although a small correlation, the result suggests that individuals who reported having a better ability for EREXP were more likely to have higher levels of SWWL. No significant relationship was found between UEX and SWWL at T3. A significant positive relationship emerged between EM and SWWL ( $r = .346, p < .05$ ), indicating that employees who reported higher levels of EM were more likely to have higher levels of SWWL. The other positive significant relationship reported was between EC and SWWL ( $r = .301, p < .05$ ). Although a weak relationship, the result does suggest that individuals who reported having a better ability in controlling strong emotional states at work were more likely to show higher levels of SWWL. These results partially support hypothesis 7. In support of these findings various other studies also found positive relationships between EI and job satisfaction (Burger, 2009; Sy et al., 2006; Wong & Law, 2002). Some studies also linked EI with life

satisfaction positively (Extremera and Fernandez-Berrocal, 2005; Palmer, Donaldson and Stough, 2002). Past empirical evidence, including the current study's partial support, suggest a reliable association between the two variables.

#### 4.4.4 Correlation Results: Work Engagement and Organisational Commitment

Hypothesis 8 proposed that significant positive relationships would exist between work engagement as (measured with the UWES-9; Schaufeli & Bakker, 2003) and organisational commitment (OC) (as measured by the Organisational Commitment Questionnaire, OCQ; Mowday, Porter & Steers, 1979) at T1, T2, and T3. Table 4.34 contains the results of the correlations between work engagement sub-dimensions and OC over the three assessment periods.

**Table 4.34**

*Correlations between Work Engagement sub-dimensions and Organisational Commitment*

	T1octotal	T2octotal	T3octotal
T1uweVig	.502**		
T1uweDed	.667**		
T1uweAbs	.423**		
T2uweVig		.663**	
T2uweDed		.648**	
T2uweAbs		.501**	
T3uweVig			.461**
T3uweDed			.498**
T3uweAbs			.027

**Note:** T1octotal – Time one assessment for total organisational commitment; T2octotal – Time two assessment for total organisational commitment; T3octotal – Time three assessment for total organisational commitment; T1uweVig – Time one assessment for the Vigour dimension of work engagement scale; T1uweDed – Time one assessment for the Dedication dimension of work engagement scale; T1uweAbs – Time one assessment for the Absorption dimension of work engagement scale; T1 – Time one assessment; T2 – Time two assessment; T3 – Time three assessment.



As expected, table 4.34 reveals significant positive relationships between the two variables over all three assessment times. The first notable correlation found at T1, is a moderate correlation between vigour and OC ( $r = .502, p < .01$ ). The result is positive which suggests that individuals who scored highly on the vigour dimension of work engagement were likely to report higher levels of OC. This suggests that individuals who report having higher levels of energy and mental resilience at work are more likely to experience higher levels of OC. It could be argued that if one believes in the goals of an organisation and show a desire to want to stay with the organisation, such an individual will most probably show high levels of energy when working, and mental resilience when facing challenges. In addition, a moderate correlation was reported for vigour and OC ( $r = .663, p < .01$ ) at T2. Hence, there was a slight increase in the magnitude of the association from T1 to T2. The association was further replicated at T3 ( $r = .461, p < .01$ ), but the magnitude of the correlation decreased slightly. Although there is evidence to suggest that this association is stable, it could be argued that it may be difficult to maintain high levels of energy all the time. The T3 assessment took place during a very stressful period of the year (the busiest part of the year) and could have contributed to the decline in magnitude of the association, as respondents may have reported less vigour during this stressful period.

Another significant, rather substantial, positive relationship reported at T1, was between dedication and OC ( $r = .667, p < .01$ ). The result indicates that individuals who score highly on the dedication dimension are likely to score high on OC as well. In other words, employees who report being strongly involved in their work where they experience a high level of significance and enthusiasm for the work will in all probability report higher levels of intentions to stay with the organisation. The trend of an association between dedication and OC ( $r = .648, p < .01$ ) was replicated at T2. The association was again replicated at T3, however, the magnitude of the relationship decreased ( $r = .498, p < .01$ ). This result may, once again, have been influenced by the stressful environment encountered by participants during the T3 testing.

A moderate correlation between absorption and OC ( $r = .423, p < .01$ ) emerged at the T1 testing. Employees who reported having high levels of concentration and report being happily

consumed by their work also report experiencing higher levels of OC. There was a slight increase in the magnitude of the association ( $r = .501, p < .01$ ) at T2. No significant relationship was reported at T3. Similar to the trend observed at some of the other findings, it appears that absorption may be more easily influenced by environmental stressors encountered at a specific point in time (e.g. stressful period due to increased workload). More research is required in this regard. According to the findings reported in table 4.34, it could be argued that sufficient evidence exist to support hypothesis 8. The trends in the correlations point to rather stable associations that can be assumed between the above mentioned variables. In support of these findings, Hakanen, Bakker, and Schaufeli (2006) also confirmed that work engagement actually had predictive value for teachers' organisational commitment. Other studies have also confirmed the positive correlation between work engagement and organisational commitment (Carmeli, 2003; Hakanen, Bakker, & Schaufeli, 2006; Hallberg & Schaufeli, 2006; Steyn, 2011; Vecina, Chacon, Sueiro, & Barron, 2012).

#### **4.4.5 Correlation Results: Work Engagement and Satisfaction with Work Life**

Hypothesis 9 proposed that significant positive relationships were expected between work engagement as (measured with the UWES-9; Schaufeli & Bakker, 2003) and satisfaction with work-life (SWWL) (as measured by the adapted version of the Satisfaction with Life Scale, SWLS; Diener et al., 1985) at T1, T2, and T3. Table 4.35 contains the correlations for these variables over the three testing periods.

**Table 4.35***Correlations between Work Engagement Sub-dimensions and Satisfaction with Work Life*

	T1swltot	T2swltot	T3swltot
T1uweVig	.474**		
T1uweDed	.390*		
T1uweAbs	.307*		
T2uweVig		.714**	
T2uweDed		.801**	
T2uweAbs		.594**	
T3uweVig			.603**
T3uweDed			.634**
T3uweAbs			.137

**Note:** T1swltot – Time one assessment for total satisfaction with work life; T2swltot – Time two assessment for total satisfaction with work life; T3swltot – Time three assessment for total satisfaction with work life; T1uweVig – Time one assessment for the Vigour dimension of work engagement scale; T1uweDed – Time one assessment for the Dedication dimension of work engagement scale; T1uweAbs – Time one assessment for the Absorption dimension of work engagement scale; T1 – Time one assessment; T2 – Time two assessment; T3 – Time three assessment.

A significant positive relationship between vigour and SWWL ( $r = .474, p < .01$ ) emerged at the T1 testing. This suggests that employees who reported the willingness to invest effort into their work and report persistence in the face of difficulty were likely to report higher levels of SWWL. This relationship was replicated at the T2 testing, however the magnitude increased to a strong association ( $r = .714, p < .01$ ). It therefore reflects a more stable association between vigour and SWWL at T2. The results suggest that as an individual's belief in the organisation's goals increases and their intention to stay improves then their energy to perform tasks and mental resilience to face challenges will also increase and vice versa. The association between vigour and SWWL ( $r = .603, p < .01$ ) was again replicated at T3. Although the association did decline in strength at T3, the significant correlation was still considered to be moderate which shows a stable association between the two variables.

A low to moderate correlation emerged between dedication and SWWL ( $r = .390, p < .05$ ) at T1. Similar to the vigour results, the T2 association increased significantly in magnitude ( $r = .801, p < .01$ ), whilst the relationship was further replicated at T3 ( $r = .634, p < .01$ ) but with a decline in the magnitude. The results do, however, suggest that a stable and reliable association exist between these variables. These findings suggest that employees who reported having a strong involvement in their work, and where they experienced some form of enthusiasm and inspiration from their work, were likely to report higher levels of SWWL.

A definite but small correlation was found between absorption and SWWL ( $r = .307, p < .05$ ) at T1. Although a rather weak significant relationship, the result suggests that there is association between the two variables. This result suggests that employees who reported being focused and happily consumed by their work, where time would pass quickly, were likely to be the individuals at work who experience higher levels of SWWL. In order to create such a state of absorption for oneself, it could be argued that an individual would have to have some level of satisfaction for the work they are doing. Following this trend, a significant moderate positive relationship also emerged ( $r = .594, p < .01$ ) at the T2 testing. However, no significant relationship emerged at the T3 testing. A similar trend was found in the absorption and OC results. More research is required in this regard.

These findings provide strong evidence to support hypothesis 9 (with the exception of the T3 absorption and satisfaction with work life result). Steyn (2011) reported similar findings. Her results revealed substantial positive relationships between the satisfaction with work life measure and each of the engagement subscales. Steyn also found that the vigour and dedication subscales were more strongly positively related to SWWL than the absorption subscale. Schaufeli and Bakker (2004) and Koyuncu et al., (2006) also reported positive relationships between engagement and satisfaction. A more recent study by Schaufeli et al., (2008) indicated a positive relationship between all three components of work engagement (vigour, dedication, and absorption) and satisfaction, while the opposite was established for exhaustion and satisfaction.

#### 4.4.6 Correlation Results: Organisational Commitment and Satisfaction with Work Life

Hypothesis 10 proposed that significant positive relationships would exist between organisational commitment (OC) (as measured by the Organisational Commitment Questionnaire, OCQ; Mowday et al., 1979) and satisfaction with work-life (as measured by the adapted version of the Satisfaction with Life Scale, SWLS; Diener et al., 1985) at T1, T2, and T3. Table 4.36 contains the correlations between OC and SWWL over the three assessment periods.

**Table 4.36**

*Correlations between Organisational Commitment and Satisfaction With Work Life*

	T1swltot	T2swltot	T3swltot
T1octotal	.389*	.549**	.406**
T2octotal	.371*	.566**	.276
T3octotal	.248	.443**	.557**

**Note:** T1swltot – Time one assessment for total satisfaction with work life; T2swltot – Time two assessment for total satisfaction with work life; T3swltot – Time three assessment for total satisfaction with work life; T1octotal – Time one assessment for total organisational commitment; T2octotal – Time two assessment for total organisational commitment; T3octotal – Time three assessment for total organisational commitment T1 – Time one assessment; T2 – Time two assessment; T3 – Time three assessment.

As expected, significant positive relationships emerged during all three assessment periods between OC and SWWL. A low correlation was reflected at T1 ( $r = .389, p < .05$ ). Employees who reported higher levels of identification and involvement with the organisation also experienced higher levels of satisfaction with their work tasks or roles. It could be argued that in order to achieve a level of commitment to the organisation an individual would have to experience some level of satisfaction with their role and task at hand. This result was replicated at both the T2 ( $r = .566, p < .05$ ) and T3 ( $r = .557, p < .05$ ) testing, pointing towards the stability of the association between these two variables. The magnitude did increase at T2 and remained relatively stable at T3. This confirms other research on the relationship between OC and SWWL. In Steyn (2011) a substantial positive relationship emerged between OC and SWWL ( $r = .606, p < .01$ ). Various other authors have reported similar results (Glisson & Durick, 1988; Gunlu, Aksarayli, & Percin, 2010) which

support the current study's finding of a significant positive correlation between OC and SWWL. In further support of this finding, previous studies have documented the positive relationship between OC and job satisfaction (e.g. Mowday, Porter & Steers, 1982; Summer & DeCotiis, 1987; Wallace, 1985). With the current findings, it is concluded that hypothesis 10 is supported.

#### **4.5 SUMMARY**

The objective of this chapter was to report the research findings obtained from the measurement instruments utilised in this research. The statistical analyses of the data were presented, interpreted and discussed in terms of the research hypotheses formulated in the preceding chapter. The reported results were discussed with specific reference to relevant literature. In the following chapter a general discussion of the results of the study, the limitations of the study, and recommendations for future research will be presented.

## CHAPTER 5

### CONCLUSION

#### 5.1 INTRODUCTION

The idea that EI could have a positive impact on both the organisational and individual level has been supported by various studies. EI has been linked to a multitude of positive workplace outcomes. For example, Dulewicz and Higgs (2000) clearly demonstrated that EI impacted on work success (work success was defined as advancement in one's work organisation). Cote' and Miners (2006) found EI to be a predictor of task performance and OCB because of its interactive effect with cognitive intelligence. In support of these favourable findings, many other authors have linked EI to some workplace outcome variable that could add value to the organisation. Kirby and Lam (2002) found that EI would account for increases in individual cognitive based performance over and above the level attributable to traditional general intelligence. Wong and Law (2002) showed in their study that job performance is significantly correlated with EI, and that the relationship appeared to be moderated by emotional labour. Van Rooy and Viswesvaran (2004), through their meta-analysis, demonstrated that EI was a construct that could be worthy of future research and that it is a valuable predictor of performance. The above mentioned studies are but a few empirical research studies which highlight the value of the EI construct within the workplace.

EI has also been linked to better physical, mental and psychosomatic health (Burger, 2009; Gardner, 2005; Görgens-Ekermans & Brand, 2011; Schutte et al., 2007) and decreased levels of occupational stress experienced by employees (Burger, 2009; Gardner, 2005; Görgens-Ekermans & Brand, 2011; Matthews et al., 2006; Oginska-Bulik, 2005). Since the academic community have been gaining interest in the construct of EI, organisations are rapidly recognising the importance and advantages of having a workforce with high levels of EI. Over the last decade EI training programmes have gradually been introduced into the workplace and various studies (Dulewicz & Higgs, 2004; Fletcher et al., 2009; Gardner, 2005; Gorgens-Ekermans, 2011; Nelis et al., 2009; Slaski & Cartwright, 2003) have reported empirical evidence to suggest that behaviours underpinning the dimensions of EI (e.g. Emotional Control, Emotional Management) can be learned and developed. Most of these empirical studies found that such programmes appear to be effective in reducing levels of occupational stress and improving health, well-being and performance (Gardner, 2005; Hansen, Gardner & Stough, 2007; Slaski & Cartwright, 2003). As previously noted, EI has in

the past been associated with negative constructs like stress and burnout but there appears to be a scarcity of research linking EI to positive psychological constructs. The current study explored whether an EI intervention (i.e. training programme) could be instrumental in facilitating increased levels of work engagement, resulting in improved levels of organisational commitment and satisfaction with work life.

In order for organisations to remain competitive, employees need to be fully committed and engaged within their work in order to reach the projected bottom line. In Bakker et al. (2004) engaged workers were found to have better in-role and extra-role performance, indicating that engaged employees performed positively and were willing to go the extra mile. According to Bakker et al. (2008) engagement is not only facilitated by job resources, but by personal resources as well. It was therefore argued in this study that EI is a unique personal resource that has not been previously studied as a personal resource in relation with work engagement.

In terms of Positive Organisational Behaviour (POB), researchers are interested in peak performance and examining the conditions under which employees can thrive within the workplace. Based on the *broaden-and-build theory of positive emotions* by Fredrickson (1998; 2001) it has been established that positive emotions broaden individuals' momentary thought-action repertoires, prompting employees to pursue a wider range of thoughts and actions than is typical. According to Fredrickson (2000) these broadened thought action repertoires gain significance because they can build a variety of personal resources (such as physical, social, intellectual and psychological). According to Pekrun (as cited in Goetz, Frenzel, Stoeger and Hall, 2010) positive emotions help individuals' to envision their goals and challenges, opens their minds to thoughts and problem-solving, protects health by fostering resiliency, helps to create attachments to significant others, lays the groundwork for individual self-regulation, and finally it helps guide the behaviour of groups, and other social systems. Fredrickson (2001) furthermore argues that positive emotions are worth cultivating, but not just as end states in themselves, but also as a means to achieving psychological growth and improved well-being over time. Moreover, in a study by Losada and Heaphy (2004) it was reported that positive communication could differentiate high-performing firms from low performing firms (measured in terms of productivity, profitability and associates' ratings of the top management team). These authors reported evidence that high performing firms had a ratio of five positive communication events (i.e. supportive, appreciate,



encouraging statements) to every negative event, whereas low performing firms displayed an average of three negative communication events (i.e. disagreeing, criticising, discouraging statements) for every positive event. Based on the arguments related to the significance of positive emotions in the workplace, it was argued that increased EI may assist an individual to attain more sustained periods of positive affect throughout their workday, which could result in more engagement.

For example, based on the EI skills identified by Palmer and Stough (2001), it was argued that if an employee was to maintain a high level of work engagement they would need to have the ability to manage all aspects of their emotional experiences in order to ensure a positive emotional state, which would produce positive upward spirals of performance, according to the *Broaden-and-Build* theory (Fredrickson, 2001). For this to be achieved it was argued that an individual should, firstly, be able to recognise and/or express their own feelings appropriately (the emotional recognition and expression component of EI). Moreover, the ability to effectively control strong emotional states such as anger, anxiety and frustration at work (i.e. emotional control), would be particularly important to maintaining positive attitudes at work. In addition emotional management is a key EI skill, needed to facilitate on-going positive emotions. Individuals high on emotional management have the ability to not ruminate on negative emotions. Such individuals are generally more adept at maintaining an optimistic and positive disposition as they actively implement solutions to maintain positive moods and emotions. Based on these arguments it was hypothesised in this study that if an employees' EI is developed, this could have a positive impact on self-reported levels of work engagement, as well as other positive workplace outcomes (i.e. organisational commitment and satisfaction with work life).

The current study therefore implemented and evaluated an EI developmental programme with line managers and other white collar workers within an international courier company based in South Africa. The objectives of the study were to; firstly, establish whether the EI training was successful in increasing participants' levels of EI, as well as improving levels of work engagement and impacting positively on workplace outcomes, such as commitment and satisfaction with work life. The second objective of the study was to explore and replicate the interrelationships between EI and the various positive psychological states of work

engagement, organisational commitment and satisfaction with work life within a South African sample.

## **5.2 EVALUATION OF THE EI DEVELOPMENTAL PROGRAMME**

### **5.2.1 Emotional Intelligence**

The current study hypothesised that EI levels (total and scores on the sub-dimensions) would increase, following participation in the EI training programme. The results revealed partial support for the hypothesis. Contrary to what was expected, a non-significant group by time effect was reflected for total EI. It has, however, been argued that the statistical power limitation (small sample size) could have influenced the results. Despite the total effect result being non-significant, the trend of the increased levels of total EI means for the experimental group over the three testing times suggests that it may be possible that EI can be developed over time. This result, however, has to be treated with caution given the limitations of the study. However, a notable finding in support of this favourable trend is the significant increase in mean scores for total EI for the experimental group from T1 to T3. This suggests that there was a significant change in EI levels two and a half months after the EI developmental programme. No similar trend was found for the control group, suggesting that the EI training could have contributed to the increase in total EI levels for the experimental group. The current findings seem to provide further weak empirical support for the notion that emotional responses and behaviours can be learned and developed in employees (Burger, 2009; Dulewicz & Higgs, 2004; Fletcher et al., 2009; Gardner 2005; Görgens-Ekermans & Swart, 2011; Görgens-Ekermans, 2011; Nelis et al., 2009; Slaski & Cartwright, 2003). In line with Gardner (2005) and Nelis et al., (2009), the current study supports the premise that EI can continue to develop long after the training has been implemented.

Breaking down total EI into the various sub-dimensions, the results revealed a broader picture. A non-significant group by time effect was found for emotional recognition and expression (EREXP) over the three testing times. There was a non-significant increase in EREXP levels for the experimental group from T1 to T2 and a decrease in levels for the control group. From T2 to T3, the experimental group remained stable which is consistent with previous research (Görgens-Ekermans & Swart, 2011; Görgens-Ekermans, 2011). It was argued that mastery saturation levels are more easily reached in terms of EREXP than the

emotional regulation components (emotional management and control). An unexpected non-significant increase in EREXP levels occurred for the control group between T2 and T3. No concrete explanation can be provided for this increase, however, history and maturation could be likely threats that influenced this score.

The understanding of others emotions – external (UEX) sub-dimension of EI followed suite with a non-significant total effect result. There were, however, similar expected trends over the three assessment periods. From T1 to T2, the experimental group showed a non-significant increase whilst the control group also showed an unexpected non-significant increase of a larger magnitude. It could be argued that familiarity and awareness may have contributed to this unexpected result in the control group. However, the experimental group increased in UEX levels from T2 to T3 and the control group decreased in levels. This particular trend was expected. The UEX results therefore provide weak, partial support for the stated hypothesis.

The most influential sub-dimension for this particular study was that of emotional management (EM). Maintaining positive emotional states are a key outcome of high EI, which according to the arguments posed in this study, could be a powerful personal psychological resource. EM is particularly important because it helps maintain positive emotional states which could trigger upward spirals of performance, adaptation and well-being. By having the ability to regulate positive and negative emotions, an employee would be more likely to experience more positive affect at work. This could have various positive outcomes on an organisational, as well as individual level. For example, Cohen, Brown, Conway, Fredrickson and Mikels (2009) in their study with a group of students found that positive emotions predicted increases in both resilience and life satisfaction. Goetz et al. (2010), in their study with university freshmen, reported that positive emotions like enjoyment, pride, and contentment were positively related to control and value appraisals. Fredrickson, Coffey, Pek, Cohn and Finkel (2008) conducted a study within which they focused on the daily experiences of positive emotions and how they compound over time to build a variety of consequential personal resources. Their results showed that the use of a meditation intervention helped produce more positive emotions on a daily basis which helped increase a wide range of personal resources (mindfulness, purpose in life, social support, and decreased illness symptoms). They furthermore discovered that these increments in personal

resources predicted increased life satisfaction and reduced depressive symptoms. These empirical studies highlight the importance of improving an individuals' capacity to maintain increased periods of positive affect, which could have significant positive outcomes on a personal level, as well as in the workplace.

The results of the current study reflected a non-significant total effect score over the three assessment periods for the EM dimension. However; the trends in the data showed a favourable picture. From T1 to T2, the EM levels improved for the experimental group whereas it remained stable for the control group. From T2 to T3, the score levels further increased for the experimental group whilst decreasing for the control group. The interesting finding here was that both groups were exposed to similar stress owing to the stressful period<sup>12</sup> during which assessment three took place. It appears that the experimental group were more capable of coping with the stress and managed to maintain a more positive psychological state during the busy period within the organisation. In support of this finding, there was also evidence of a significant group mean score increase from T1 to T3 for the experimental group. This is a notable finding and replicates previous studies (Burger, 2009; Görgens-Ekermans, & Swart, 2011; Görgens-Ekermans, 2011). It would suggest that EM could possibly be developed through an EI intervention; hence weak, partial support for this hypothesis was found.

The second emotion regulation component, namely emotional control (EC), leaned toward a significant result for group by time effect over the three testing times. From T1 to T2 there was, as expected, an increase in EC levels for the experimental group and a decrease for the control group. From T2 to T3 there was a further increase for the experimental group and a further decrease for the control group. The post hoc results revealed that the experimental group showed a significant group mean score increase from T1 to T3 for EC levels. These results suggest partial support for the hypothesis and further replicate previous trends (Burger, 2009; Görgens-Ekermans, & Swart, 2011; Görgens-Ekermans, 2011). It would also indicate that EC could possibly be developed through an EI intervention.

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<sup>12</sup> It was a difficult task trying to organise a time for participants to complete their T3 assessment which was during the festive season. According to the HR manager and the line managers during the training, this was a particularly busy period for the organisation because all their big clients wanted their products to be distributed. The festive season is known to be a profit generation period for retail organisations. For example, one of their major jobs was to deliver textbooks to all the schools around the country. It was a period when all staff had to put in extra effort and time to make sure deadlines were met and clients were happy.

The above mentioned results for total EI and the sub-dimensions suggest that further research in corporate settings regarding EI development is warranted. The current EI training intervention could perhaps produce statistically significant results to support the hypothesis that EI can be developed, provided that the methodological challenges faced in this study can be avoided in the future (i.e. small sample size). One of the notable findings was the significant group mean score changes for the two emotion regulation components (emotional management and control) from T1 to T3. These results suggest that the EI intervention may have contributed to the increased levels of EM and EC from T1 to T3. This is an encouraging and notable finding, given that it was argued that it is mainly the regulation components of EI which could have the biggest impact on an employees' ability to maintain more positive psychological states at work, leading to improved levels of work engagement, organisational commitment and satisfaction with work life. Based on the results it is cautiously argued that weak partial evidence exists to suggest that the current EI training intervention may have contributed towards increasing the experimental group's managers and employees' EI levels at the participating organisation. Although the present study was restricted by a small sample size ( $n = 35$ ), the results seem to provide further weak empirical support for the notion that emotional responses and behaviours can be learned and be developed in employees (Burger, 2009; Dulewicz & Higgs, 2004; Fletcher et al., 2009; Gardner 2005; Görgens-Ekermans & Swart, 2011; Görgens-Ekermans, 2011; Jonker, 2009; Nelis et al., 2009; Slaski & Cartwright, 2003).

### 5.2.2 Work Engagement

In this study it was argued that by developing employees' levels of EI, especially the regulation component of EM, individuals may find it easier to manage their positive and negative emotions more effectively, enabling them to maintain a more pervasive positive psychological state, thereby facilitating improved levels of work engagement. Bakker and Demerouti (2008) confirmed that engaged employees often experience positive emotions at work. They further argued that it was through these positive emotions that employees actually performed better. Cropanzo and Wright (as cited in Bakker and Demerouti, 2008) found that happy employees are more sensitive to opportunities at work, more outgoing and helpful to others, and more confident and optimistic. It was argued in this study that positive emotions

(e.g. happiness, optimism, high energy and resiliency) may be linked to the work engagement components (vigour, dedication and absorption) which are known to draw on positive emotional and / or psychological states. It was therefore hypothesised that total scores on each of the sub-dimensions of work engagement (vigour, dedication and absorption) would increase following participation of the EI training. The vigour sub-dimension of work engagement is characterised by high levels of energy and mental resilience. However, the group by time effect for vigour over the three testing times was found to be non-significant. An interesting finding was that intercept level differences (at the first test time) were clearly evident between the control and experimental groups. The control group had higher levels at T1, possibly suggesting the line managers selected the least engaged employees or “problem staff” to be a part of the EI training, in the hope that they would improve in various workplace outcomes. Although the total effect score was non-significant, the trends followed an expected pattern. From T1 to T2, levels of vigour increased for the experimental group. However, there was also an unexpected non-significant increase for the control group, possibly attributed to a test retest effect (validity threat). More favourable trends were evident in the latter stages of testing, where vigour levels further increased for the experimental group from T2 to T3 and no similar trend was evident for the control group. These scores actually decreased from T2 to T3. Post hoc results also revealed a change in group mean scores leaning towards significance for the experimental group from T1 to T3, following the premise that there is weak, partial support for this hypothesis.

The intercept benchmark levels for dedication was similar to that of the vigour results, supporting the theory that less engaged workers were probably selected for the experimental group. Dedication, which focuses on an employee’s level of involvement in their work where meaning and enthusiasm is experienced, obtained a non-significant total effect result over the three assessment periods. However, favourable trends were identified. From T1 to T2 there was an increase in dedication levels for the experimental group, whereas there was evidence of a decrease for the control group at this testing time. The experimental group, further, showed an expected increase from T2 to T3 whilst a further decrease was evident for the control group. Additional post hoc results revealed a significant group mean score increase from T1 to T3 for the experimental group, suggesting that the EI training may have contributed to the improved levels of dedication for the experimental group. These results, therefore, suggest weak, partial support for the stated hypothesis.

Changes in the final sub-dimension of work engagement, absorption, was similarly found to be non-significant in terms of a group by time effect over the three testing periods. From T1 to T2, there was a slight increase in absorption levels for the experimental group, however, a similar trend was found for the control group. From T2 to T3, the experimental group's absorption levels remained stable, but during this time period there was a dramatic decrease for the control group. This becomes a notable finding as it was previously mentioned that both groups experienced the same levels of stress during the busy time when the final assessment was administered. The experimental group seemed to have coped better with the stress and managed to maintain their levels of absorption, whereas, the control group decreased in absorption levels. These trends provide weak, partial support for the stated hypothesis. Taking into account all the results for the engagement sub-dimensions, although there were no significant group by time effect scores, the trends paint a fairly favourable picture and warrants more research in this regard. To the knowledge of the researcher, no notable studies have investigated the development of EI as a personal resource that can facilitate improved levels of engagement. Despite the non-significant statistical results, the findings related to the intervention and its effects on the sub-dimensions of engagement, showed trends that suggest more research is required in this domain. The current findings therefore provide weak and partial support for the stated hypotheses.

### 5.2.3 Organisational Commitment

Organisational commitment, which considers the amount of an employee's identification and involvement with the participating organisation, was investigated in relation to the EI developmental programme. It was hypothesised that OC would increase following participation in the EI training. It was further argued that by developing the various EI skills (e.g. EM, to manage positive and negative emotions effectively), the individual would develop a more positive psychological state, leading to increased levels of OC at work. The results revealed a statistically significant group by time effect over the three assessment periods. It is, however, important to study this result within the boundaries of inconsistent results obtained for this construct. From T1 to T2 there was a significant and unexpected decrease for the experimental group on OC levels. Taking the environmental factors into consideration, it was noted that there was tremendous organisational conflict at the time

within the sales department which led to the resignation of three sales staff members. All these employees were a part of the experimental group at the time. This situation had a profound impact on the psychological and emotional state of the sales department employees and this was evident within the small group training sessions. These individuals were expressing severe dissatisfaction and intention to quit attitudes. It has, therefore, been argued that this situation was the main contributor to the significant decrease in experimental group scores from T1 to T2. There was a slight decrease in OC levels for the control group between T1 and T2. However, the data further revealed that there was an increase in OC levels for the experimental group from T2 to T3 whilst the opposite was evident for the control group. The post hoc results revealed a significant increase in group mean scores for the experimental group from T2 to T3. This result has to be treated with caution as the significant increase may be due to the inconsistent drop at T2 for the experimental group. The control group further decreased in OC from T2 to T3. Despite the plausible reasons for the inconsistent results, the findings suggest no support for the stated hypothesis. The environmental factors that contributed towards the inconsistent results could not be avoided. However, further research in this regard should be pursued. This is due to the fact that previous research (Burger, 2009; Gardner, 2005) has found support for this hypothesis.

#### 5.2.4 Satisfaction with Work Life

SWWL was measured with an adapted version of the satisfaction with life scale (Diener et al., 1985). The authors hypothesised that SWWL would increase following participation in the EI developmental programme. It was further argued that by developing the emotion regulation components of EI (emotional management and control) that employees would be able to maintain or enhance their positive psychological states which arguably should lead to more positive evaluations of satisfaction with one's work life. Arguments for this expected result was based in research which relates EI to life satisfaction, which has the same theoretical framework as SWWL. For example, Kuppens, Diener and Realo (2008) found in their study with 8557 people from 46 countries that positive emotional experiences had a positive relationship with life satisfaction. Swartz and Clore (as cited in Kuppens et al., 2008) showed in their study that positive and negative experiences have causal influences on satisfaction judgments. This would support the affect-as-information perspective (Swartz & Clore, 2007), which ultimately suggest that individuals' rely on their emotional experiences to form judgements of how satisfied they are with their general lives and other domains such



as work. The results of the current study revealed a non-significant group by time effect score over the three testing times for SWWL. Despite no statistical significance for the total effect, the trends showed a positive picture in terms of the EI training programme contributing to improved levels of SWWL over the three assessment periods. From T1 to T2, SWWL increased for the experimental group and decreased for the control group. There was a further improvement in SWWL levels for the experimental group from T2 to T3 and no similar trend was evident for the control group. In support of this trend, the post hoc results revealed a marginally significant group mean score increase for the experimental group from T1 to T3. This could potentially suggest that the EI training partially contributed to the increase in SWWL levels. The above mentioned results indicate weak, partial support for hypothesis 4, taking into consideration the favourable trends. To the knowledge of the author, no notable studies have linked an EI training intervention to the development of SWWL. However, ample research evidence has linked EI to life satisfaction. For example, Gannon and Ranzijn (2004) found that individuals who scored higher on the EM sub-dimension of EI were more likely to score higher on life satisfaction. As previously noted, the fact that SWWL is based on the same theoretical foundation as life satisfaction, it is argued that by developing the EM sub-dimension of EI, it is possible that future research in this domain could lead to statistically significant results.

Fredrickson (2000) argues that the exploration to find ways of developing positive emotions, should note that emotions cannot be directly instilled. Generally, emotions follow from appraisals of personal meaning and as such, the most prolific opportunities for cultivating positive emotions may be to help employees' find positive meaning in their daily work experiences. Two recent studies attempted to implement interventions in the workplace in order to increase PA. The first notable study by Kotsou, Gregoire, Mikolajczak, and Nelis (2011) investigated whether it was possible to increase emotional competence in adulthood and whether these improvements can lead to better mental, physical and social adjustment. The authors also wanted to find out whether these improvements could be maintained over a period of a year. 132 participants were randomly assigned to an emotional competence training intervention. Their results revealed that the level of emotional competencies (the capacity to identify, understand, express and manage one's own and others feelings) increased significantly in the experimental group in contrast with the control group. This increase in emotional competencies resulted in lower cortisol secretion, enhanced subjective

and physical well-being, as well as improved quality of social and marital relationships in the intervention group. Their results suggest that emotional competencies can be improved, with effective benefits on personal and interpersonal functioning lasting for at least one year. From a practical point of view, they showed that it is possible to influence crucial aspects of people's lives (by enhancing emotional competencies) such as psychological well-being, subjective physical health, and relationship quality, among others.

In another study by Fredrickson et al. (2008) the authors wanted to test the broaden-and-build hypothesis and investigate whether positive emotions compound over time to build a variety of consequential resources. The experiment utilised 139 working adults, where half were assigned randomly to an intervention of loving kindness meditation. Their results revealed that the meditation practice helped increase daily experiences of positive emotions, which in turn, produced increases in a wide range of personal resources (for example; increased mindfulness, purpose in life, social support, and decreased illness symptoms). In addition, these increments in personal resources predicted life satisfaction and reduced depressive symptoms. It is argued here that the current EI training intervention would have had similar effects on participants as the emotion regulation components of EI used similar techniques to develop individuals EI abilities. For EM, cognitive behavioural techniques were utilised to help change employees mindsets to a more positive psychological state. To help develop the EC dimension of EI, participants were taught meditation techniques to help them deal with strong negative emotional states.

### **5.3 INTER-RELATIONSHIPS BETWEEN EI, WORK ENGAGEMENT, ORGANISATIONAL COMMITMENT AND SATISFACTION WITH WORK LIFE**

The second objective of the current study was to explore and replicate previous research on the interrelationships between EI, work engagement, organisational commitment and satisfaction with work life. Spearman's correlation coefficient was calculated in the study to explore whether there are any reliable associations between the above mentioned variables and whether the current study could support the existing body of knowledge where these constructs have been linked. Hypothesis 5 stated that significant positive relationships would exist between EI (total EI and scores on the sub-dimensions) and work engagement (total

scores on the sub-dimensions). When total EI was correlated with the sub-dimensions of engagement, no stable consistent associations were found. There were isolated significant correlations between total EI and absorption at T1, total EI and vigour at T3, and total EI and dedication at T3 but these were not replicated at any of the other testing times. When total EI was broken down into the sub-dimensions of EI and correlated with the sub-dimensions of engagement, a clearer account of the associations became apparent.

The EM and vigour associations was replicated at T2 and T3, EC and vigour was replicated at T2 and T3, and EC and dedication was replicated at T1 and T3. These three associations remained stable over these measurement times and suggest a moderate stability of association between these variables. The important aspect of this finding is that the results highlight the importance of the emotional regulation components of EI (encapsulated in the EM and EC dimensions) in self-reported work engagement. In support of this argument, the most stable relationship that emerged from the results was between EM and dedication, as it was reflected as significant at all three testing times. The correlations were low to moderate and appeared fairly stable in magnitude. In chapter 4 it was argued that the dedication sub-dimension taps into the affective / emotional component of engagement. In order to remain enthusiastic about one's work, a positive emotional response is required from the employee. In order for this to occur, the individual must have the ability to regulate their positive and negative emotional states (the EM component of EI). What makes the current study unique is that no notable South African studies, to the knowledge of the author, have investigated the link between EI and work engagement and for this reason the findings reported here are exploratory in nature. The findings of this study indicate evidence of associations between the EI and work engagement variables at sub-dimensional level and therefore lay the foundation for further research. The current results partially confirm hypothesis 5.

The following relationship to be investigated was between EI and OC. It was hypothesised that positive significant relationships would emerge between the two variables based on an abundance of previous research, suggesting this association. As expected, the results revealed significant positive relationships at each assessment period between total EI and OC. The magnitude was relatively stable over the three testing times and suggested a small to moderate positive association. These results replicated previous studies (Burger, 2009;

Carmeli, 2003; Gardner, 2005; Guleryuz et al, 2008; & Nikolaou & Tsaousis, 2002) that a significant positive correlation exists between EI and OC.

In order to gain a more detailed account of the associations, total EI was broken down into its sub-dimensions and correlated with OC. A fairly moderate relationship was discovered for EREXP and OC as the relationship was replicated at T1 and T3. In chapter 4 it was argued that the organisational conflict could have attributed to the non-significant result obtained at T2. A stable relationship was found between EC and OC as the association was replicated at all three testing times with low to moderate correlation strength. The most stable and reliable relationship was found between EM and OC. The magnitude ranged from moderate to substantial in strength. Once again, the results reflect the importance of the emotional regulation components of EM and EC as they were replicated at all three assessment periods. From these results, partial support for hypothesis 6 emerged. It would be fair to suggest based on these findings that the more employees' develop their EI skills and abilities, the more their perceived self-report levels of OC will increase towards the organisation. These findings support previous research (e.g. Carmeli, 2003; Gardner, 2005; Nikolaou and Tsaousis 2002) where significant positive relationships between EI and OC were reported.

For hypothesis 7 it was argued that positive significant relationships would emerge between EI and SWWL. The results showed an unexpected picture as no significant relationships were found between total EI and SWWL at T1 (one week before the training) and T2 (immediately after the programme). A moderate correlation then emerged at T3 (two and a half months after the intervention) between the two variables. The result however, needs to be treated with caution. To gain a clearer picture, EI was divided into the sub-dimensions and correlated with SWWL. Significant relationships only emerged at the T3 assessment which corroborates the total score results. Significant relationships were found between EREXP and SWWL, EM and SWWL, and EC and SWWL. All the magnitudes were low to moderate and provide only partial support for hypothesis 7. The fact that the significant relationships were not replicated at any of the other testing times calls for further research to test the stability of the association. Previous studies found positive relationships between EI and job satisfaction (Burger, 2009; Sy et al., 2006; Wong & Law, 2002) and some studies have linked EI with life satisfaction positively (Extremera and Fernandez-Berrocal, 2005; Palmer et al., 2002). Taking

these previous findings into account, it could be argued that one could expect these variables to be related.

The association between engagement and OC was the next relationship to be investigated. It was hypothesised that significant positive relations would emerge between the two variables. As expected, the results revealed significant positive relationships across all three assessment periods. The vigour sub-dimension of engagement was positively correlated with OC over all three testing times. The magnitude was moderate to substantial and the association was stable in nature. There was a slight decrease in magnitude at T3, and this is attributed to the difficulty in maintaining high levels of energy for long periods of time. The most stable and reliable association was found between dedication and OC. The significant relationship was replicated at all three testing periods and obtained substantial magnitudes for T1 and T2. There was a slight decrease at T3, similar to the vigour and OC result. A moderately stable relationship was also found for absorption and OC. Significant but moderate in strength relationships were replicated at T1 and T2 for absorption and OC. There was no significant relationship found at T3. It could be argued that absorption could probably be easily influenced by environmental factors and the stressful environment experienced by all during T3 could have contributed to this non-significant result. It is fair to suggest that these results convey enough empirical evidence in support of hypothesis 8. The above mentioned associations were relatively stable and it corroborates previous research in this regard. Various other studies have confirmed the positive correlation between these two variables (Carmeli, 2003; Hakanen et al., 2006; Hallberg & Schaufeli, 2006; Steyn, 2011; Vecina et al., 2012).

SWWL is a construct that has been previously linked to work engagement (Steyn, 2011). The aim was to replicate this finding in this study. It was hypothesised that positive significant relationships would emerge between work engagement and SWWL. Two stable and reliable associations emerged between vigour and SWWL and dedication and SWWL. Both relationships showed magnitudes of low to high correlations for T1 and T2 and then a slight drop at T3. These results support Steyn's (2011) results where vigour and dedication were also found to be more strongly related to SWWL than the absorption scale. A moderately stable relationship was found for absorption and SWWL in this study. Low to moderate significant relationships was replicated at T1 and T2 and no significant relationship was

found at T3. This result is similar to that of the absorption and OC results. More research is required in this regard. The current results support previous studies (Schaufeli and Bakker 2004; Koynuncu et al., 2006; Schaufeli et al., 2008) where positive significant relationships were reported between work engagement and satisfaction. As a result of the current findings, there is strong evidence to support hypothesis 9.

The final association being investigated was between the OC and SWWL. It was hypothesised that significant positive relationships would emerge between OC and SWWL. The results showed favourable associations as significant positive relationships was replicated at all three testing times. At T1 a low magnitude in strength was reported and this increased to a substantial relationship at T2 and remained stable at T3. These findings point toward stability for the association between OC and SWWL. This result supports Steyn's (2011) finding that significant positive relationships exist between OC and SWWL. In relation to these findings, other researchers have found positive links between OC and job satisfaction (Mowday et al., 1982; Summer & DeCotiis, 1987; Wallace, 1985). The above mentioned results confirm support for hypothesis 10.

Positive psychology has enabled researchers and psychologists to move away from the negative constructs into the domain of building on positive qualities. Luthans (2002) therefore defined POB as the study and application of positively orientated human resource strengths and psychological capacities (e.g. optimism, hope, resilience) that can be measured, developed, and efficiently managed for performance improvement in today's organisations'. Lyubomirsky, Diener, and King (2005) believe that positive affect (PA) engenders success. These authors have argued that positively valenced moods and emotions lead people to think, feel, and act in ways that promote both resource building and involvement with approach goals. According to them positive emotions signal that life is going well, that the person's goals are being met, and that his/her resources are adequate. Furthermore, when an individual is doing well, they can expand their resources and friendships; they can take the opportunity to build their repertoire of skills for future use; or they can relax to rebuild their energy after expending high levels of effort. Fredrickson (2001) suggests that a critical adaptive purpose of positive emotions is to help prepare the individual for future challenges. Another characteristic related to PA is that positive emotions produce the tendency to approach rather

than to avoid and basically prepares the individual to seek out and undertake new goals (Lyubomirsky et al., 2005).

Positive emotions can also transform organisations because they expand upon people's routine modes of thinking, and in doing so, make organisational members more adaptable, accommodating, empathetic, and creative amongst others (Fredrickson, 2003). To this end it is argued that the extent to which the organisational outcome variables in this study, namely work engagement, commitment, and satisfaction are associated with EI, the positive emotions encountered within the organisation (as a results of higher EI levels) may also improve performance and functioning of the individual and the organisation as a whole. Fredrickson (2003) further argues that such broadening is likely to build stronger organisational associations, improve organisational climates and cultures, and lead to exceptional organisational outcomes.

#### **5.4 GENERAL DISCUSSION OF RESULTS**

Based on the findings presented in both the preceding sections, some fundamental inferences can be made from the results of the study. Firstly, there seems to be consistent, albeit statistically weak, empirical evidence to suggest that EI can be developed. Although the current study's findings were non-significant the trends in the results suggest that an increase in EI skills and abilities was evident for the experimental group. The contrast was visible for the control group. There was also some evidence to suggest that the development of EI may perhaps help increase levels of engagement and SWWL. There were some validity threats that impacted on the results for OC, but previous research suggests that EI is associated with OC, hence it could reasonably be expected that an increase in EI could result in an increase in self reported OC. More research in corporate settings is required in this regard. Furthermore, the current study set out to investigate whether EI could be considered a personal resource that helps facilitate engagement. The findings above suggest a stable association between EM and the dedication component of work engagement which is said to tap into the affective / emotional component of engagement. It is argued, therefore that there is preliminary evidence to suggest that EI is worthy of being a personal resource that may help facilitate improved levels of engagement. This has been deduced partly from the intervention study results, as well as the positive correlational results evident in this study.

Moreover, the emotion regulation components of EM and EC showed more positive trends in terms of being malleable through EI training. In addition to this, it was the EM and EC components of EI that correlated most strongly with the outcome variables of engagement, OC, and SWWL. These results suggest that interventions that focus on these dimensions of EI (i.e. regulation components) could prove particularly beneficial to organisations wanting to improve the psychological and emotional state of employees which ultimately leads to better social relationships and organisational climate. These positive environments (where employees' feel psychologically and emotionally good) enable individuals to perform at their best. In conclusion it is argued that the study provides preliminary evidence that the EI construct could be utilised fruitfully to increase positive psychological states at work. EI before has always being linked to negative constructs at work, to facilitate better coping. However, this study's findings add to the existing body of knowledge that EI can be used to maintain and develop positive psychological constructs (engagement, commitment) at work.

## **5.5 LIMITATIONS OF THIS STUDY**

In order to evaluate the current study's findings holistically, important limitations have been identified which may have influenced the overall results. It is therefore important to take cognizance of these limitations when interpreting the results. The most significant limitation in the current study was that of the statistical power limitation. Power according to Howell (2004) is the probability of correctly rejecting a false  $H_0$ . Sample size is certainly a variable that can affect the power of a test. Due to the fact that we are interested in means or differences between means, we are therefore interested directly or indirectly, in the sampling distribution of the mean. The variance of the sampling distribution of the mean decreases either as  $n$  increases or the  $\sigma^2$  decreases (Howell, 2004). The small sample size ( $n = 35$ ) utilised in the study may have negatively impacted on the power of the results when the evaluation of the EI training was being evaluated. Non-significant scores were found for all group by time effect results, however, expected trends with the results showed development with the experimental group over the three testing times and the opposite for the control group (in the most of the cases). It is fairly probable that the non-significant scores were due to the small sample sizes of the experimental and control groups utilized in this research. To gain some context of the difficulty experienced in trying to retain group numbers, it is



important to note that the study initially started off with 46 participants and suffered a drop rate of 23.6% ( $n = 11$ ). There were reasons beyond the researcher's control which contributed to the small sample size used in the final data analyses. For example, three employees on the experimental group resigned within two weeks of the intervention due to organisational conflict. One manager could not continue due to management responsibilities. In the control group participants dropped out due to workload pressures. This was a notable limitation within the research which should be addressed in future research of this nature.

A common limitation according to Babbie and Mouton (2002), when collecting data for the social sciences is the utilisation of self-reported measurement instruments. This method has been criticized for two reasons. Firstly, Conway (2002) argues that the magnitudes of effects may be biased as a result of common method variance and secondly, that such data may be prone to response bias. A relevant form of response bias, which may be applicable in the present study that could have influenced the results, is that of social desirable responding. Zammuner and Galli (2005) argue that social desirable responses occur when respondents tend to create a positive view of themselves by over-reporting admirable attitudes and behaviours, and under-reporting attitudes and behaviours that they feel are not socially acceptable or respected. The current study utilised five self-report measures, and the results should be interpreted in terms of this limitation. It was evident in the training sessions that certain employees were not certain why they were allocated to the experimental group and expressed some element of fear as to what the managers were trying to discover. This was dealt with in the sessions; however, it is fear such as this, which may tempt respondents to provide social desirable responses. Including a social desirability scale or using other instruments that have good predictive validity and attempt to address this limitation can be used in order to address this issue in future research.

A third limitation is that of confounding variables. A confounding variable is an uncontrolled extraneous variable that co-varies with the experimental manipulation, which undermines the internal validity of the experiment (Terre Blanche et al., 2006). This could pertain to stressors that are experienced by the participants outside of the work environment (for example, family issues or financial strains) which could spill over into the work domain. Factors such as these could influence results and should be taken into account when interpreting the results. Another confounding variable which was evident in the current study was that of situational

and time specific variables to which the respondents' were exposed to at the time of the assessments. The first striking evidence of this limitation in action was the organisational conflict that occurred during the T2 assessment where three sales employees who were part of the experimental group resigned. There was a clear significant drop in OC levels for the experimental group during this time and the impact was evident in the current study. Another situational factor that could be taken into consideration was the stressful period during the festive season when the T3 assessment was conducted. Possible evidence of this limitation having an influence was the drop in magnitude for significant relationships (WE and OC or WE and SWWL) at the T3 assessment. On two occasions the absorption sub-scale of engagement was non-significant at the T3 testing when there were clear significant relationships at the previous two testing times.

The limitations identified in this study are rather familiar to the controlled experimental design that was adopted in this research. Learning points from previous empirical studies (Burger, 2009) were incorporated in order to increase the validity of the results (e.g. using a control group, and adding in a second post-test assessment to gauge the extent to which changes were sustained over time).

## **5.6 RECOMMENDATIONS**

The first recommendation is that a replication study be conducted with a larger sample at another branch of the partnering organisation. The large sample will definitely improve the statistical power of the results and using a different branch will ensure more generalisable results. It was really difficult to control the sample retention within the corporate context. Using only one branch constrained the number of willing participants able to participate in the research. A possible solution to this problem would be to get buy in from line managers as to the importance of the research and benefits for their respective departments and the organisation as a whole. This should facilitate higher initial participation rates, as well as higher retention throughout the research. Due to time constraints, there was not enough time to conduct face-to-face visits with management and prospective participants' in this study. Establishing better buy-in can allow future researchers in this regard to be more effective. Another solution to the small sample size is to have a bigger participant pool, which would allow for substantial drop outs without limiting the statistical power of the results.

Several changes to the intervention content and structure may enhance the utility thereof. For example, a number of participants in the experimental group did not take the time to complete their “homework”. Encouraging the participants’ to complete homework is essential as the homework gives each individual the opportunity to reflect on their experiences and apply their new knowledge. A suggestion is that, at the end of each session, the facilitator should communicate the importance of doing their homework clearly. The power of this should not be underestimated and in future should be factored into the training. The current study also scheduled the last two sub-dimensions to be covered in the last training session. It is recommended that the session be reduced to two one and a half hour sessions, and that one dimension be covered in each session. It is suggested to have shorter sessions and add two more training sessions to the intervention. This would allow researchers to focus on specific themes in each session and provide more exercise time to reinforce the learning process.

Another recommendation is to extend and replicate this research to other organisations and industries. For example, sales staff and call centre agencies where lots of emotional labour is experienced by employees could be an ideal environment in which to conduct this EI intervention. Conducting such a training intervention, which helps employees to regulate their emotions at work, may play a significant role in improved performance through their enhanced ability to stay engaged with their work.

## **5.7 CONCLUSION**

The main aim of the current study was to implement and evaluate an EI developmental programme for line managers and other white collar workers within an international courier company in South Africa. The second objective was to replicate previous research on interrelationships between the variables included in this study (EI, work engagement, organisational commitment, and satisfaction with work life). Despite the methodological limitations in the current study, the results provided some empirical evidence and insights that can promote forward momentum in terms of future research. The study was also the first notable South African study (to the knowledge of the author) to link EI to positive psychological states, such as work engagement. The goal of the EI developmental programme was to help employees develop their emotional awareness and regulation abilities which could ultimately impact on their level of engagement and improve their levels of commitment and satisfaction with work life.

The major limitation of the current study was the small sample size, however many insightful and supportive empirical evidence was obtained which contributes to the existing body of knowledge. The study provides evidence to suggest that EI development may possibly assist in the development of engagement levels of employees which was a primary objective of this particular study. Additionally, further evidence is provided to suggest that EI is related to work engagement, organisational commitment, and satisfaction with work life. The research leaves a solid foundation upon which future research can be based. Using EI development to enhance positive psychological states at work is a notion which must be researched further.

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## APPENDIX 1

### PRE-PROGRAMME QUESTIONNAIRE PACK

SECTION A: GENERAL INFORMATION LETTER, CONSENT FORM (TWO DIFFERENT FORMS ARE PROVIDED – ONE FOR THE CONTROL GROUP AND ONE FOR THE EXPERIMENTAL GROUP) AND DEMOGRAPHIC QUESTIONNAIRE.

SECTION B: CONTAINED THE MEASUREMENT INSTRUMENTS (THESE ARE NOT PROVIDED HERE DUE TO COPYRIGHT).





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June 2011

Dear Participant,

**EMOTIONAL INTELLIGENCE AND WELL-BEING**  
**Request to complete the attached questionnaire (Pre-test – Experimental group)**

You are asked to participate in a research study on *Emotional Intelligence (EI) and well-being*. The purpose of this research is to better understand how increased EI skills influence better well-being.

If you volunteer to participate in this study, we would ask you to do the following things:

1. Fill out a battery of questionnaires at three separate assessment times (1 pre-test and 2 post-test assessments). The composite questionnaire has 2 sections and should take approximately 45 minutes to complete.
2. Participate in the EI training course. This will entail:
  - a. Six small group sessions of 3 hours each which will take place at a convenient time and place. The small group sessions will be facilitated by an experienced facilitator.
  - b. You should be willing to share about your emotions and emotional experiences during these sessions.

By volunteering to participate in this study, you may experience the following benefits:

1. You will receive two EI psychometric reports – one at the beginning of the program, and one after the program have been completed. This will give you valuable insight into your strengths and developmental opportunities regarding your own EI. By completing the pre-test assessment you will have baseline measures to track your development throughout the intervention.
2. You may benefit from the training program as it is aimed at teaching you EI skills (e.g. emotional control / regulation) which could enhance your general psychological and physical health, as well as life satisfaction.

Your participation in the study is completely voluntary. You can decide for yourself whether you will participate by choosing to respond to this request by completing the attached questionnaire. All responses will be treated with anonymity and will only be used for the research purposes of this project. Confidentiality and anonymity is priority and will be honored in this manner.

**IMPORTANT: INFORMED CONSENT**

**Before you continue please read and sign the following statement of voluntary consent.**

### **Confidentiality**

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of access to the data that will be restricted to the researchers (Dr. G Görgens & Carl Herman) only. When publishing the data, the name of the institution where the data was collected will not be mentioned.

### **Participation and Withdrawal**

You can choose whether to participate in this study or not. If you agree to participate in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in this study. The researcher may withdraw you from this research if circumstances arise which warrant doing so.

### **Identification of Investigators**

If you have any questions or concerns about the research, please contact any one of the researchers (Dr. G Görgens at [ekermans@sun.ac.za](mailto:ekermans@sun.ac.za) / 021 8083596 or Mr C Herman at [cr.herman@uct.ac.za](mailto:cr.herman@uct.ac.za) / 021 4047680)

### **Rights of research respondent**

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study.

### **Independent contact person**

Should you have any questions regarding your rights as a research subject, please feel free to contact Ms Maléne Fouché (021 8084622 or [mfouche@sun.ac.za](mailto:mfouche@sun.ac.za)) at the Division for Research Development, Stellenbosch University.

### **CONSENT FORM (please tick the appropriate box and fill in the date and location):**

Date and place:

Signature:

I, \_\_\_\_\_, hereby consent to voluntarily participate in this study and attend all 6 intervention contact sessions. I agree that my data could be integrated into a summary of the results of all the questionnaires without identifying me personally.

I don't want to participate in this study.

**PLEASE TURN OVER AND COMPLETE SECTION A**

**SECTION A**

Please answer the following general questions. This information is for statistical purposes and use of the researchers ONLY.

1. Gender

Male	Female
(01)	(02)

2. Age

Please specify:
-----------------

3. Language:

First language / mother tongue

Afrikaans	English	Xhosa
(01)	(02)	(03)
Venda	Zulu	Ndebele
(04)	(05)	(06)
South Sotho	North Sotho	Tsonga
(07)	(08)	(09)
Tswana	Swazi	Other
(10)	(11)	(12)

4. Language:

Second language

Afrikaans	English	Xhosa
(01)	(02)	(03)
Venda	Zulu	Ndebele
(04)	(05)	(06)
South Sotho	North Sotho	Tsonga
(07)	(08)	(09)
Tswana	Swazi	Other
(10)	(11)	(12)

**6. Ethnic Group**

(for statistical purposes only)

Black (African) (01)	Coloured (02)	White (03)
Indian (04)	Other Asian (05)	Other (06)

**7. Marital status**

Single (01)	Married (02)	Divorced (03)
Other (04)		

**6. Highest level of completed education**

Matric (01)	Diploma (02)	Undergraduate university degree (03)
Post graduate university degree (honours) (04)	Post graduate university degree (masters) (05)	PhD (06)

**8. How long have you been working at this company?**

Please specify:

**9. Position (e.g. manager, sales consultant) in the company?**

Please specify:

**PLEASE TURN OVER AND COMPLETE SECTION B**

Please respond to all the questions in all the sections. Choose the relevant option to each item and indicate your answer in the applicable manner. There are no right and wrong answers to any of the questions; we are only interested in your personal opinions. Keep in mind that frank and truthful answers are the most important contributions you can make to the success of the program for yourself.

**Please follow the instructions as carefully as possible. The questionnaire should take approximately 45 minutes to complete.**



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June 2011

Dear Participant,

**EMOTIONAL INTELLIGENCE DEVELOPMENT  
Request to complete the attached questionnaire (Pre-test – Control group)**

You are asked to participate in a research study on the development of *Emotional Intelligence (EI)*. The purpose of this research is to better understand how increased EI skills influence certain workplace related outcomes.

If you volunteer to participate in this study, we would ask you to do the following things:

3. Fill out a battery of questionnaires at three separate assessment times (1 pre-test and 2 post-test assessments). The composite questionnaire has 2 sections and should take approximately 30 minutes to complete.
4. Provide permission that your individual performance management data may be accessed and used in this research.

By volunteering to participate in this study, you may experience the following benefits:

3. You will receive an EI psychometric report which will give you valuable insight into your strengths and developmental opportunities regarding your own EI.
4. An effort will be made by the researchers to negotiate further training for the control group participants, after the study has been completed. However, the outcomes of this discussion will remain the decision of the management of the participating company.

Your participation is completely voluntary. You can decide for yourself whether you will participate by choosing to respond to this request by completing the attached questionnaire. All responses will be treated with anonymity and will only be used for the research purposes of this project. Confidentially and anonymity is priority and will be honored in this manner.

**IMPORTANT: INFORMED CONSENT**

**Before you continue please read and sign the following statement of voluntary consent.**

### **Confidentiality**

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission or as required by law. Confidentiality will be maintained by means of access to the data that will be restricted to the researchers (Dr. G Görgens & Mr C Herman) only. When publishing the data, the name of the institution where the data was collected will not be mentioned.

### **Participation and Withdrawal**

You can choose whether to participate in this study or not. If you agree to participate in this study, you may withdraw at any time without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in this study. The researcher may withdraw you from this research if circumstances arise which warrant doing so.

### **Identification of Investigators**

If you have any questions or concerns about the research, please contact any one of the researchers (Dr. G Görgens at [ekermans@sun.ac.za](mailto:ekermans@sun.ac.za) / 021 8083596 or Mr C Herman at [cr.herman@uct.ac.za](mailto:cr.herman@uct.ac.za) / 021 4047680)

### **Rights of research respondent**

You may withdraw your consent at any time and discontinue participation without penalty. You are not waiving any legal claims, rights or remedies because of your participation in this research study.

### **Independent contact person**

Should you have any questions regarding your rights as a research subject, please feel free to contact Ms Maléne Fouché (021 8084622 or [mfouche@sun.ac.za](mailto:mfouche@sun.ac.za)) at the Division for Research Development, Stellenbosch University.

### **CONSENT FORM (please tick the appropriate box and fill in the date and location):**

Name: \_\_\_\_\_



E-mail address<sup>13</sup>: \_\_\_\_\_

Date: \_\_\_\_\_

I hereby consent to voluntarily participate in this study and complete all three testing sessions. I agree that my data (also my performance management data) may be integrated into a summary of the results of all the questionnaires / performance management data without identifying me personally.

I don't want to participate in this study.

**PLEASE TURN OVER AND COMPLETE SECTION A**

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<sup>13</sup> The psychometric report will be forwarded to this e-mail address. If you don't have an e-mail address, please indicate this here.

**SECTION A**

Please answer the following general questions. This information is for statistical purposes and use of the researchers ONLY.

**1. Gender**

Male (01)	Female (02)
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**2. Age**

Please specify:
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**3. Language:**

First language / mother tongue

Afrikaans (01)	English (02)	Xhosa (03)
Venda (04)	Zulu (05)	Ndebele (06)
South Sotho (07)	North Sotho (08)	Tsonga (09)
Tswana (10)	Swazi (11)	Other (12)

**4. Language:**

Second language

Afrikaans (01)	English (02)	Xhosa (03)
Venda (04)	Zulu (05)	Ndebele (06)
South Sotho (07)	North Sotho (08)	Tsonga (09)
Tswana (10)	Swazi (11)	Other (12)

**6. Ethnic Group**

Black (African)	Coloured	White
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(for statistical purposes only)

(01)	(02)	(03)
Indian	Other Asian	Other
(04)	(05)	(06)

**7. Marital status**

Single (01)	Married (02)	Divorced (03)
Other (04)		

**6. Highest level of completed education**

Matric (01)	Diploma (02)	Undergraduate university degree (03)
Post graduate university degree (honours) (04)	Post graduate university degree (masters) (05)	PhD (06)

**8. How long have you been working at UTi?**

Please specify:

**9. Position (e.g. manager, sales consultant) in UTi**

Please specify:

**PLEASE TURN OVER AND COMPLETE SECTION B**