EMOTIONAL INTELLIGENCE AND WELL-BEING IN TEACHERS

Trudie Burger

THESIS PRESENTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTERS OF COMMERCE (INDUSTRIAL PSYCHOLOGY) AT THE STELLENBOSCH UNIVERSITY

SUPERVISOR: Dr. GINA EKERMANS

December 2009

DECLARATION

I, the undersigned, Trudie Burger, hereby declare that the work contained in this thesis is my own original work and that I have not previously, in its entirety or in part, submitted it to any university for a degree.

SIGNATURE: 

DATE: 20 / 11 / 09

ABSTRACT

Trudie Burger

EMOTIONAL INTELLIGENCE AND WELL-BEING IN TEACHERS

Supervisor: Dr. Gina Ekermans

Teachers in the post-apartheid South Africa experience multiple, complex and constantly changing requirements within the teaching context, which contributes to high levels of stress. They are often faced with different challenges than those in more developed countries. For example, a lack of sufficient resources is a common occurrence in schools in South Africa. Furthermore, teachers regularly engage in multiple roles (e.g. that of the educator, social worker, nurse, etc.) Hence, some researchers identify teaching as a particularly stressful occupation, and suggest that teachers experience disproportionately high levels of stress, when compared to other occupations. Some reasons provided for the occurrence of this include long working hours, high workloads, lack of discipline and respect from learners, and the new South African curriculum, enforcing learner-centred or cooperative teaching methods. Consequences of teachers experiencing high levels of stress have ultimately resulted in the South African government admitting that they are facing a shortage in skilled teachers. Therefore, promoting the well-being of teachers is crucial. There is a need to invest in teacher well-being, in order to reduce the occurrence and consequences of stress in the workplace.

The central role that emotions play in the stress process is increasingly recognised. It is said that an individual will experience stress and strain, if they perceive the situation as negative or stressful. For this reason, emotional intelligence (EI) has led to a new focus on the role of emotions in the workplace. More specifically, EI involves expressing, recognising, understanding and managing emotions. Research has proven that EI serves a buffering role against stress, and those individuals with higher EI experience better overall health. However, little research has explored the role that EI plays in the

stress process experienced by teachers, specifically. This thesis examined the relationship between EI and the occupational stress process, strains (i.e. physical- and psychological health), and the outcomes of stress (i.e. job satisfaction, organisational commitment and work-family conflict). To this end, an EI and stress management intervention program was implemented and evaluated within a primary school in the Western Cape area.

The training program was evaluated in terms of its possible effect on EI, occupational stress, strains (i.e. physical- and psychological health), and outcomes of stress (i.e. job satisfaction, organisational commitment and work-family conflict). The sample consisted of 31 teachers. Baseline measures were taken at two time intervals prior to the commencement of the EI training program. In addition, participants were assessed immediately after concluding the program.

The findings of this study demonstrated limited effectiveness of the EI training program in terms of improving levels of EI, and decreasing levels of occupational stress. However, physical- and psychological health improvements were evident after completion of the program. In addition, no changes in job satisfaction or organisational commitment (as outcomes of stress) were evident after completion of the program. However, a significant decrease in work-family conflict scores emerged. The results should be interpreted in the light of a significant limitation (i.e. lack of control group data) of this study. Qualitative data (i.e. field notes of the small group facilitators) were also discussed in an attempt to elaborate on the context of the study and the subsequent results. Further research is necessary to address this study's limitations and to more accurately determine the efficacy of the training program utilised for this research.

OPSOMMING

Trudie Burger

EMOSIONELE INTELLIGENSIE EN WELSYN VAN ONDERWYSERS

Studieleier: Dr. Gina Ekermans

In ‘n post-apartheid era kom Suid Afrikaanse onderwysers te staan teen ‘n stel vereistes wat voortdurend verander, asook kompleks en veelvoudig van aard is. Binne die opvoedkunde konteks dra hierdie faktore by tot hoë vlakke van stres. In kontras met ontwikkelde lande, staar Suid Afrikaanse onderwysers verskillende uitdagings in die gesig. Een voorbeeld behels die gebrek aan genoegsame hulpbronne, `n algemene verskynsel in Suid Afrikaanse skole. Voorts vervul onderwysers ook voortdurend verskeie rolle (bv. opvoeder, maatskaplike werker, verpleegster ens.). In vergeleke met ander beroepe, het sommige navorsers al uitgewys dat onderwysers aan buitengewone hoë stresvlakke blootgestel word. Hierdie hoë voorkoms van stres kan toe geskryf word aan lang werksure, hoë werkslading, gebrek aan dissipline en respek van leerders, asook die nuwe Suid-Afrikaanse kurrikulum wat leerder-gefokusde en uitkoms-gebaseerde metodes afdwing. Gevolglik het die Suid-Afrikaanse regering onlangs erken dat daar tans ‘n gebrek aan opgeleide onderwysers bestaan. Daar is `n behoefte om in onderwysers se welstand te belê, ten einde die voorkoms en gevolge van stres in die werksplek te verminder.

Die sentrale rol wat emosies speel in die stres-proses ontvang toenemend meer erkenning. Daar word aangevoer dat individue stres en spanning sal ondervind, indien hulle die situasie as negatief evalueer. Emosionele intelligensie (EI) het dus gelei tot ‘n nuwe bewustheid van die rol wat emosies in die werksplek speel. EI behels die uitdrukking, erkenning, begrip en bestuur van emosies. Navorsing toon dat EI ‘n buffer teen stres vorm, en diegene met hoër vlakke van EI ervaar beter algehele gesondheid. Tot op hede, is daar egter min navorsing gedoen ten opsigte van die rol wat EI vertolk in die stres-proses soos wat dit spesifiek deur onderwysers ervaar word. Hierdie tesis het die verwantskap tussen EI en beroepsverwante stres, spanning (fisiese- en sielkundige welstand), en die uitkomste van stres (werksatisfaksie, organisatoriese

toewyding en werk-familie konflik) ondersoek. As sulks is `n EI en stresbestuursopleidingsprogram geïmplimenteer en geevauleer in `n primêre skool in die Wes-Kaap.

Die opleidingsprogram was geevalueer in terme van EI, beroepsverwandte stres, spanning (fisiese- en sielkundige welstand), en die uitkomste van stres (werksatisfaksie, organisatoriese toewyding en werk-familie konflik). Die steekproef het bestaan uit 31 onderwysers. Psigometriese metings is gedoen op twee aparte tydsintervalle voordat die program begin het, en een meting is afgeneem nadat die program afgehandel was.

Die bevindinge van hierdie studie het getoon dat die program tot `n beperkte mate suksesvol was om onderwysers se vlakke van EI te verhoog, en vlakke van beroepsverwante werkstres te verlaag. Fisiese- en sielkundige welstand het egter `n verbetering getoon na afloop van die program. ‘n Verlaging in werk-familie konflik wat onderwysers ervaar, is ook aangetoon. Ongelukkig was daar nie `n beduidende verskil in werksatisfaksie en organisatoriese toewyding na afloop van die program nie. Dit is belangrik om die resultate te interpreteer binne die konteks van een van die grootste beperkinge (die afwesigheid van kontrolegroep data) van hierdie studie. Kwalitatiewe data (die veldnotas afgeneem deur die fasiliteerders) is kortliks bespreek om meer lig op die skool se konteks en die verbandhoudende resultate te werp. Verdere navorsing is nodig om hierdie studie se beperkinge aan te spreek, en om die effektiwiteit van die EI opleidingsprogram meer akkuraat te bepaal.

ACKNOWLEDGEMENTS

First and foremost, I would like to extend my gratitude towards my supervisor, Gina. Thank you for your guidance, support, recommendations, expertise and most of all, your valuable input in this study.

Professor Estelle Swart, thank you for your assistance with the EI training program, and your instrumental insights into the contextual factors of teaching.

Gina and Professor Swart, I appreciate the opportunity to have been a part of this special project.

I would like to thank the University of Stellenbosch for providing the funding for this project. Specifically, the research grant awarded to Gina and Professor Swart through the Cooperative Research Program, Swinburne University initiative.

To the teachers from the school where this program was run, thank you for your assistance and cooperation (due to the ethical agreement their names can not be mentioned).

I thank my mother and father, Sandra and Gerhard, for providing me with the privilege to have studied this far, and for your unreserved love.

My Heavenly Father, without you all of this would not have been possible. Thank you for providing me with the strength, perseverance and ability to complete my studies.

Finally, I would like to extend a special thank you to Neel, my pillar of strength. Thank you for your interest, unconditional support, and most of all, for believing in me.

TABLE OF CONTENTS **PAGE**

LIST OF TABLES

TABLE NUMBER **PAGE**

LIST OF TABLES

TABLE NUMBER **PAGE**

LIST OF FIGURES

FIGURE NUMBER **PAGE**

LIST OF APPENDICES

APPENDIX NUMBER **PAGE**

CHAPTER 1: INTRODUCTION

1.1 INTRODUCTION

Emotional intelligence (EI) involves the capacity to perceive emotions, assimilate emotion-related feelings, understand the information of emotions, and manage emotions (Mayer, Salovey & Caruso, 2000). The findings of various studies indicated that EI could have an impact on several organisational and individual domains. For example, EI has been found to predict performance (Van Rooy & Viswesvaran, 2004), contributes to organisational leadership and career success (Barling, Slater & Kelloway, 2000; Gardner & Stough, 2002; Shipper, Kincaid, Rotondo & Hoffman, 2003), is correlated with enhanced physical, mental, and psychosomatic health (Gardner, 2005; Schutte, Malouff, Thorsteinsson, Bhullar & Rooke, 2007), and it has a relationship with occupational stress (Gardner, 2005; Gohm, Corser & Dalsky, 2005; Matthews, Emo, Funke, Zeidner, Roberts, Costa & Shulze, 2006; Oginska-Bulik, 2005; Saklofske, Austin, Galloway & Davidson, 2007). As a result, in a number of different industries, EI development programs are being introduced in workplaces. The rationale for the introduction of these programs is the belief that EI development and training can lead to numerous benefits for individuals in the workplace (Schutte et al., 2001; Wong, Foo, Wang & Wong, 2007), as well as improve the general functioning of the organisation. For example, some recent research evidence has shown that EI development and training has resulted in reduced occupational stress and improved health, well-being and management performance (Gardner, 2005; Hansen, Gardner & Stough, 2007; Slaski & Cartwright, 2003).

Teaching has been identified as a particularly stressful occupation (Day & Gu, 2007; Engelbrecht, Oswald, Swart & Eloff, 2003; Gu & Day, 2007; Mearns & Cain, 2003; Smylie, 1999). Some authors suggest that teachers experience disproportionately high levels of stress in comparison with other occupations (Burke & Greenglass, 1996). From a health perspective, high levels of stress in teachers is related to poor health, lower job satisfaction, higher rates of absenteeism and an increased desire to leave the profession (Galloway, Panckhurst, Boswell, Boswell & Green, 1984; Mearns & Chain, 2003; Montgomery & Rupp, 2005; Sheffield, Dobbie & Carrol, 1994; Travers & Cooper, 1993). Researchers, including Hargreaves (1994; 1998; 2000; 2007), Nias (1999), Fullan (1993) and Zembylas (2007), contributed to the

understanding of the emotional nature of teaching and learning. They argue that teaching is emotional labour (Day & Gu, 2007) which refers to the "act of managing emotions and emotional expressions in order to be consistent with organisational 'display rules' defined as the organisationally required emotions during interpersonal service transactions" (Mikolajczak, Menil & Luminet, 2007, p. 1108). As such, the organisationally required emotions often clash with spontaneous emotions creating confusion, stress and masked emotions.

Psychological support in schools should therefore not only be aimed at learners, but the well-being of the teachers should also be attended to. The existence of high levels of occupational stress in the teaching profession, and the associated economic and health consequences, suggest there is a need to develop suitable interventions to promote the well-being of teachers as well as to reduce the occurrence and consequences of stress.

Teachers in the post-apartheid South Africa experience multiple, complex and constantly changing requirements in their teaching and learning contexts contributing to high levels of stress and potential burnout (Chisholm et al., 2005).

The major changes that contribute to teachers' stress, particularly in public schools, include:

- An intensification of workload due to policy changes and the requirements of the Revised National Curriculum Statement (including planning, preparation, reporting, recording and assessment). This also includes an increase in the number of learning areas[1] and the lack of resources and teachers in some of the learning areas;
- The nature of the work environment (e.g. class size and overcrowded classes) and the lack of resources (e.g. textbooks, stationary), development and support;
- The Integrated Quality Management Systems, specifically, has led to a heightened expectation for accountability and an emphasis of performativity. Deretchin and Craig (2007, p.16) for example, noted that

[1] Cabinet places an emphasis on the retention and strengthening of learning areas such as economic and management sciences, and technology (Chisholm, 2005).

"raising standards (as indicators of quality) is the aim and nothing else seems to matter";

- The expanding role of teachers as a result of the minimum requirements for implementing White Paper 6[2] (Department of Education. 2006 Education White Paper 6. Special needs education) and the Norms and Standard for Educators (Norms and Standards for Educators). For example, teachers find the increasing diversity in classrooms, including learners with disabilities, particularly stressful;
- Socio-economic and other contextual realities that impact on teaching and learning as emotional labour (i.e. learner (dis)behaviour in terms of discipline, disrespect, inattentiveness) violence, poverty, the implications of HIV & AIDS);
- The requirements of the pastoral care role. Teachers are faced with multiple and complex roles to fulfil in order to address the educational, psychological, social, financial, health care, spiritual and welfare needs of the students in their care (Chisholm et.al., 2005);
- Salary and professional status; and
- A diminished sense of self-esteem (de Beer, Mentz & van der Walt, 2007).

An innovative evidence-based approach is required to address the problem of occupational stress in teachers in South Africa, given the unique stressors these individuals face on a daily basis. This study implemented and evaluated an EI training program for primary school teachers designed to reduce occupational stress and increase psychological- and physical well-being. The training program, based on cognitive-behavioural and psycho-educational strategies, aimed to teach teachers how to better deal with emotions and reduce their levels of occupational stress.

A number of researchers have evaluated the efficacy of training programs to reduce occupational stress (Kagan, Kagan & Watson, 1995; Lindquist & Cooper, 1999; Rahe et al., 2002; Sharkey & Sharples, 2003). However, none of these programs

[2] White Paper 6 outlines what an inclusive education and training system is, and how this is intended to be built. It provides a framework for establishing such a system, details of a funding strategy, and the key steps that are to be taken in establishing the system for South Africa.

included strategies to deal with the emotions that arise from feelings of stress. Research suggests that stress and emotion are related constructs that do not occur independently from one another. The experience of stress is the manifestation of negative emotions triggered by danger, threats or challenges (Slaski & Cartwright, 2003). The important role that emotions play in the occupational stress process is only just being recognised. As emotions are difficult to measure in the workplace, they have generally been ignored in organisational research. However, the emergence of EI has lead to a new focus on the role of emotions in the workplace. For example, a recent Australian study by Gardner (2005) piloted a training program for teachers from different educational sectors (primary, secondary and tertiary). The study found that the EI training program was successful in improving EI, decreasing employee strain, as well as decreasing occupational stress and the outcomes of stress (Gardner, 2005).

The results of this program suggested that behaviours related to the dimensions of EI (e.g. Emotional Recognition and Expression, Emotional Management, Emotional Control) can be learned. The results also suggested that training programs focused on the emotional experiences of employees (e.g. teachers) can be effective in increasing feelings of well-being and reducing occupational stress.

The purpose of this research was to implement and evaluate an EI and stress management intervention within the South African educational environment. To this end, an EI training program was conducted with teachers in a primary school in the Western Cape. The program endeavoured to enhance employees' EI skills (e.g. emotional management, emotional control) in their workplace, and teach them how to deal with the negative emotions that arise from the experience of occupational stress.

In this explorative study, an EI intervention (i.e. training program) was implementated with the aim of establishing whether this training program was instrumental in combating various negative facets of the occupational stress process, experienced by teachers. It was hypothesised that following participation in the EI training program, the participants' levels of EI will increase, and that their levels of perceived occupational stress will decrease. Furthermore, it was hypothesised that levels of

psychological- and physical health will improve following participation in the training program, as well as the outcomes of stress.

1.2 STRUCTURE OF THE THESIS

Chapter 2 of this thesis introduces the theoretical framework for this study. To this end, each of the five constructs measured in this research, namely EI, stress, job satisfaction, organisational commitment and work-family conflict are discussed. Chapter 3 presents the rationale, objectives and aims of this research. In addition, details regarding how the participants were sampled, the intervention, the measurement instruments and data analysis are discussed. The results of this study, as well as a discussion thereof are presented in chapters 4 and 5. Chapter 5 also describes the limitations of this study as well as recommendations for future research.

1.3 SUMMARY

This chapter's purpose was to provide and overview of the study. The unique nature of the organisation (i.e. school) and employee (i.e. teacher), given the challenges faced in this industry and environment, were highlighted. One of the main constructs, namely, EI, was introduced and the motivation for and purpose of this study was elucidated. The next chapter will provide a comprehensive overview of the five constructs measured in this study. Specific reference will be made to significant literature and previous studies involving these five constructs.

CHAPTER 2: THEORETICAL FRAMEWORK

2.1 INTRODUCTION

Different researchers have stressed the reality that teaching is a particularly stressful occupation (e.g. Day & Gu, 2007; Engelbrecht et al., 2003; Gu & Day, 2007). Similar to other organisations, the school work environment may contain ooccupational stressors that cause strains, poor psychological health and well-being of the individual (Beehr, 1995; Kahn & Byosiere, 1992). It is now generally accepted that prolonged or intense stress can have a negative impact on the individual's mental and physical health (Cooper, Dewe & O'Driscoll, 2001). Apart from the fact that prolonged stress imposes a propensity to develop the abovementioned physical and psychological effects on individuals, it often represents an added cost for organisations (e.g. schools) in terms of lower job satisfaction, less organisational commitment, and more work-family life conflict experienced by employees.

Teachers in South Africa are constrained by circumstances that are somewhat distinct from those in developed countries (Johnson, Monk & Hodges, 2000). For example, schools are often hindered by a lack of sufficient resources to effectively perform their duties (such as books and stationary). Teachers regularly have to perform multiple and complex roles to address the educational, financial, psychological, health care, social, and welfare needs of the pupils in their class rooms (Chisholm et al, 2005). They constantly engage in the role of the educator, social worker, police officer, nurse, as well as counsellor. The constant balancing of these roles and the demands of caring has a negative impact on their self-esteem, self-value and morale. This, in turn, makes them vulnerable (Chisholm et al., 2005). In addition, external factors, like the introduction of the learner-centred or cooperative teaching methods, enforced by the new curriculum[3] (Robinson, 1999), further exacerbate teacher stress. The Department of Education in 2005 issued an

[3] The revised National Curriculum Statement was instated by the South African Department of Education in 2002. The revision was undertaken in three stages. The first stage involved the 'cleansing' of the existing curriculum of its racist and sexist elements. The second stage entailed the implementation of outcomes-based education, by means of Curriculum 2005. Outcomes-based education involves a formative and continuous assessment of learner progress, rather than a summative approach. The result of this approach, however, was that teachers experienced increased workloads, higher levels of stress and less job satisfaction (Department of Education, 2005). Consequently, the country faces a lack of skilled educators (Department of Education, 2005). The last stage consisted of the moulding of Curriculum 2005, to make it more understandable in the South African context (Chisholm, 2005).

article where they stated that as a result of these challenging circumstances, 54 per cent of educators are contemplating leaving the teaching profession. Contributing factors of their readiness to leave the profession include low levels of job satisfaction, lack of career advancement and recognition, teaching conditions (e.g. working hours, workloads, work policies), lack of discipline and respect, and high job stress (Department of Education, 2005). For example, a local newspaper recently reported that more than 20 000 teachers are leaving the profession every year, whilst only 6 000 new teachers qualify each year (Lund, 2007). It is therefore not surprising that the South African government recently admitted that South Africa faces a teacher shortage that must urgently be addressed, in order to limit serious economic and social ramifications (Lund, 2007).

Given the abovementioned challenges and the subsequent current state of the teaching profession in South Africa, it is clear that a great need exists to address the well-being of the teachers in South Africa in order to help curb the current problems the profession is facing. One possible solution is to develop suitable intervention programs to help promote the well-being of teachers, as well as to reduce the occurrence and consequences of stress. Such programs (e.g. development of EI to influence stress management, as was evaluated in this research), may help to increase teacher resilience when managing the stress of the multiple and complex roles they face on a daily basis, more effectively. According to Kremenitzer, Mosja and Brackett (2008), the creation of an emotionally intelligent culture at a school can have a number of positive effects, including minimising negative outcomes experienced by learners and teachers), healthier social interactions among teachers and learners, as well as increased job satisfaction, organisational commitment and better work family life balance, in teachers. The implementation of EI programs in schools has increased over the last few years (e.g. Chan, 2006; Kaufhold & Johnson, 2005; Parker et al., 2004; Zeidner, Roberts & Matthews, 2002). Clearly, the concept of EI has over recent years, enjoyed increased recognition as one of the key aspects when it comes to promoting the well-being of teachers in the workplace.

2.2 EMOTIONAL INTELLIGENCE (EI)

2.2.1 Conceptualising EI

The importance of emotions to intellectual functioning was originally studied by researchers such as Thorndike, Guilford and Gardner. As such, contemporary theories propose that emotions play an important role in organising, motivating and directing human behaviour (Salovey & Mayer, 1990). A trend is noticeable in that EI is becoming an important area of research in the educational and psychological spheres (El Hassan & El Sader, 2005). The first and most promising description and theory of EI was conceptualised by Salovey and Mayer in 1990. According to them, EI involves the "abilities to perceive, appraise, and express emotion; to access and/or generate feelings when they facilitate thought; to understand emotion and emotional knowledge; and to regulate emotions to promote emotional and intellectual growth" (Mayer & Salovey, 1997, p. 10).

Salovey and Mayer's initial model suggested that EI encompass the ability to understand feelings in self and others, as well as to use those feelings as information guides for problem-solving and regulating behaviour. This description of EI suggests that it consists of three components: appraising and expressing emotions, regulating emotions, and utilising emotional information in thinking and acting (Salovey & Mayer, 1990). However, according to their definition of EI given in the previous paragraph, there are four different abilities/skills (also known as branches) of EI.

Hence, in 1997 a modification was made to the initial model (Mayer & Salovey, 1997). This model is ordered hierarchically from basic psychological to more psychologically integrated processes and includes four branches. Each branch has a set of associated emotional abilities. The branches are:

1) Perception, appraisal and expression of emotion: the accuracy with which individuals can identify emotions and emotional content;
2) Emotional facilitation of thinking: describes emotional events that assist intellectual processing;
3) Understanding and analysing emotions and employing emotional knowledge: the ability to recognise, label and interpret emotions; and

4) Reflective regulation of emotions to promote emotional and intellectual growth: conscious, reflective regulation of emotions to enhance growth (Mayer & Salovey, 1997).

Each of the stages (i.e. branches) in the model includes levels of abilities which an individual completes in sequence before progressing to the next stage. Those who have higher levels of EI are believed to progress through these abilities quicker than those with lower levels of EI (Mayer & Salovey, 1997).

Research has shown that higher levels of EI could be especially beneficial to an individual and to his/her organisation. For example, emotionally intelligent individuals have abilities such as being able to persist in frustrating situations, motivating oneself, managing impulses, postponing gratification, regulating one's moods, and being able to hope and empathise (Goleman, as cited in Newsome, Day & Catano, 2000). An individual with high levels of EI is able to "identify, understand, experience, and express human emotions in a healthy and productive way" (Justice & Espinoza, 2007, p. 457). Research findings also show that EI is positively related to other forms of intelligence. Some believe that it develops over time (e.g. Watkin, 2000) whilst others hold that it can be improved by training individuals in this field (Ashkanasy & Daus 2002; Gardner, 2005; Wong et al., 2007).

2.2.2 Theory and measurement of EI

Various models and measures of EI have been developed since Salovey and Mayer conceptualised and coined the construct in 1990. These models and measures have been compared according to their theoretical structure as well as the way they measure EI (Mayer et al., 2000). As such, two general groupings were identified by Mayer et al. (2000): 'mixed' (personality) and 'ability' models of EI.

Mixed models define EI as a combination of emotion-related competencies, personality traits and behavioural dispositions (Mayer et al., 2000; Palmer, Monach, Gignac & Stough, 2003). On the other hand, ability models define EI as an intelligence, where emotion and thought act together in meaningful and adaptive ways. In this approach, EI is conceptualised as a set of mental abilities which has to

do with emotions and the processing of information that are a part of, and contributes to intelligence in general (Palmer et al., 2003).

The two types of models are best reflected by the two main approaches to the measurement of EI. Petrides and Furham (2001) categorised instruments according to their measurement approaches. That is, trait EI measures (also known as self-report measures of EI) and performance-based (objective) measures (also known as ability-EI). The former category concerns models of EI that are intended to measure an individual's belief about emotional abilities, rather than his/her actual ability (Mayer et al., 2000). Mixed models employ a self-report approach. The Bar-On EQ-i and the Swinburne University Emotional Intelligence Test (SUEIT) are examples of self-report measures (Palmer et al., 2003). The latter category (performance-based measures) pertains to ability models that include a series of emotion-related questions for which there are more or less correct answers (Palmer et al., 2003). The only set of performance based measures available is the Multi-Factor Emotional Intelligence Scale (MEIS), and the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) (Palmer et al., 2003).

Performance-based measures

The Multi-Factor Emotional Intelligence Scale (MEIS) was developed by Mayer, Salovey and Caruso. It is a multitask ability measure based on the four-branch ability model of EI. Tasks such as judging emotions on faces and designs, and defining complex emotion terms are included in this measure. An overall EI score, four sub-scores that correspond to each of the four branches (Mayer & Salovey, 1997), and 12 scores for individual subtests (Caruso, Mayer & Salovey, 2002) are provided. In a study by Caruso et al. (2002), the measure demonstrated adequate internal consistency, but reliability scores were lower than desired.

The most recent operationalisation of Mayer and Salovey's ability model of EI is the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT). The MSCEIT was developed to improve upon the MEIS in three areas: scoring, reliability and factor structure. Research subsequently indicates that the MSCEIT's psychometric properties are significantly better than the MEIS's (Palmer, Gignac, Monacha & Stough, 2005). The MSCEIT was designed to measure EI on eight subtests, divided

into four skill groups: perceiving emotions; using emotions; understanding emotions; and managing emotions. These groups comprise of two subtests each (Mayer, Salovey, Caruso & Sitarenios, 2003). Mayer, Salovey and Caruso, (2004) report overall reliability of 0.91 or 0.93 (depending on whether expert or consensus scoring was used), and area reliabilities ranging from 0.68 to 0.90. However, in a recent study by Rossen, Krantzler and Algina (2008), evidence indicated that the MSCEIT lacks structural fidelity ("the precision of reproduction", Rooney, 1999, p. 692) and that the measure does not measure all of the factors of EI it was intended to (Keele & Bell, 2008; Rossen et al., 2008). Several important studies were conducted with the MSCEIT. The most consistent findings will briefly be discussed.

Firstly, research indicates that females generally score higher than males on most ability-based tests of emotion. This is corroborated by studies that report a significant gender difference in mean EI, measured by the MSCEIT (Brackett, Warner & Bosco, 2005; Day & Carrol, 2004; Lyons & Schneider, 2005; Palmer et al., 2005; Zeidner, Shani-Zinovich, Matthews & Roberts, 2005). EI has also been found to correlate moderately with job performance (r = 0.22) (Janovics & Christiansen, 2001: as cited in Zeidner, Matthews & Roberts, 2004), it is associated with lower levels of stress (Gohm et al., 2005; Matthews et al., 2006), and there is a relationship between EI and success in the workplace (Cherniss, Extein, Goleman & Weissberg, 2006).

Secondly, significant relationships have been found between EI (as measured by the MSCEIT) and the Big Five personality factors (Matthews, Roberts & Zeidner, 2004; Matthews et al., 2006; Schulte, Ree & Caretta, 2004; Zeidner et al., 2004). Mayer et al. (2004) used a weighted mean over five studies and reported a relationship between the MSCEIT and each of the five factors of the personality model. This study shed light on the characteristics of individuals with high levels of EI. Significant correlations were found between individuals with high levels of EI and agreeableness (r = 0.21), openness (r = 0.17), and conscientiousness (r = 0.11). Lower relations, though still significant, was found for extraversion (r = 0.06) and neuroticism (r = -0.09). In a different study, Warwick and Nettelbeck (2004) found that only agreeableness had a significant correlation with the MSCEIT (r = 0.30), while Day and Carrol (2004) found low and/or no significant correlations between the MSCEIT subscales and these personality scales. Collectively, Mayer et al. (2004), found that

the correlation between the Big Five and the MSCEIT is $r = 0.38$ when regressing the former on the latter.

Lastly, it has been argued that the MSCEIT has met the standard criteria for an intelligence test. That is, scores increase with age, and while the scores show unique variance, it also correlates with existing intelligences (Brackett et al., 2005). While studies with the MSCEIT also illustrate that EI is distinct from other intelligences (Mayer et al., 2004), the concepts that it assesses resembles a type of intelligence (Zeidner et al., 2005). This was demonstrated by a study where gifted individuals scored significantly higher on the MSCEIT than their non-gifted counterparts ($t = 2.68$, $p < 0.01$, $n = 206$) (Zeidner et al., 2005).

Trait EI / Self-report Measures

The Bar-On model of EI entails a selection of personal, emotional and social abilities and skills. From a review of the mental health literature, this model identified 15 determinants of positive psychological well-being and healthy emotional functioning, which are now defined as the 15 components of this model (Bar-On, 2000). This model and instrument (the Emotional Quotient Inventory, EQ-i) have five broad factors of EI, each factor consisting of several narrower facets: (1) Intrapersonal; (2) Interpersonal; (3) Stress Management; (4) Adaptability; and (5) General Mood. Psychometric tests with a South African sample ($n = 44$) proved it to have good test re-test reliability ($r = 0.85$ after a one month period) and internal stability (Bar-on, as cited in Palmer et al., 2003). However, the validity of this measure needs to be investigated further. The most consistent findings of using the EQ-i in measuring EI are presented below.

Studies using the EQ-i have shown that EI can significantly predict academic success (Parker et al., 2004), and is related to life satisfaction and adaptive coping strategies (Petrides, Perez-Gonzalez & Furnham, 2007). Similar to the MSCEIT, females also tend to score higher on the EQ-i than males (Parker, Hogan, Eastabrook, Oke & Wood, 2006; Parker, Saklofske, Shaughnessy, Huang, Wood & Eastabrook, 2005).

Various studies that used the EQ-i support the validity of EI in the workplace. Slaski (as cited in Zeidner et al., 2004) reports correlations between total EQ-i and morale (r = 0.55), distress (r = -0.57), general mental health (r = -0.50), and work satisfaction (r = 0.41). Similarly, the study of Day, Therrien and Carrol (2005) found that health outcomes (e.g. colds, flu, and dizziness) were associated with all of the EI subscales (correlations ranged from r = -0.51 to r = 0.62). Furthermore, this particular study also showed that there was an overlap among the EQ-i scales and personality. Individuals with high levels of EI were found to be more extraverted and conscientious, had higher levels of agreeableness and openness, and they showed lower levels of neuroticism (Day et al., 2005). The notion of an overlap among EQ-i scales and personality is corroborated by Grubb and McDaniel (2007). Accordingly, they found that all the Big Five measures contributed significantly to the prediction of the EQ-i:S (the short form of the EQ-i) total score. The regression analysis yielded a multiple correlation of (r = 0.79) with the total EQ-i:S score, which indicates that the majority of variance in the EQ-i:S is attributable to the Big Five constructs. The findings reported above are evidence in the ongoing debate of whether EI is a distinct construct from personality. However, further research is needed to shed more light on this particular topic.

The Swinburne University Emotional Intelligence Test (SUEIT) was developed by Palmer and Stough in their attempt to deduce the most distinct dimensions of EI from the multitude of models and measures that existed at the time of their study (Palmer & Stough, 2001). The EI training program and instrument, utilised in this study, was based on the SUEIT EI model. Palmer and Stough (2001) performed a factor analytic study, involving six of the most predominant and representative measures of EI at the time. These included: (1) the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) (Mayer, Salovey & Caruso, 1999); (2) the Bar-On Emotional Quotient Inventory (Bar-On, 1997); (3) the Trait Meta-Mood Scale (Salovey, Mayer & Caruso, 1995); (4) the twenty item Toronto Alexithymia Scale-II (TAS-20; Bagby, Taylor & Parker, 1994); (5) the scale by Schutte et al. (1998); and lastly (6) the scale by Tett, Wang, Fisher, Martinez, Griebler & Linkovich (1997).

The SUEIT is an empirically based model of EI, consisting of five factors representing related abilities on how effectively emotions are dealt with in the workplace. This measure provides scores on:

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. Emotions Direct Cognition – the extent to which emotions and emotional knowledge are incorporated in decision making and/or problem solving;
3. Understanding of Emotions External – the ability to identify and understand the emotions of others;
4. Emotional Management – the ability to manage positive and negative emotions within both others and oneself; and
5. Emotional Control – how effectively emotional states experienced are controlled (Palmer & Stough, 2001).

Different versions of the SUIET are available. One such version is the Adolescent SUEIT. Palmer and Stough (2001) report moderate to high internal consistency levels for the Adolescent SUEIT. Similarly, in a study by Luebbers, Downey and Stough (2007), it was found that adolescents can reliably and validly report their own levels of EI, with the subscales achieving moderate to high levels of reliability. The psychometric properties of the instrument are discussed in more detail in chapter three.

2.2.3 Value of EI in the workplace

Increasingly, companies are realising that EI skills should be an essential part of an organisation's management philosophy. A foreign survey of benchmark practices found that four out of five organisations are now seeking to promote EI in their organisation (Zeidner et al., 2004). A possible motive for this is the belief that EI could be the reason for workplace performance not accounted for by IQ or personality, and that it could be a psychological determinant of occupational success (Palmer et al., 2003).

Favourable workplace outcomes for individuals with high levels of EI have been shown in a study by Palmer et al. (2003). For example, they found that individuals with higher levels of EI are more likely to perform better in the workplace, have a lower rate of absenteeism, display higher levels of organisational commitment, have higher levels of job satisfaction, and are less prone to be affected by occupational stress (Palmer et al., 2003). According to research, individuals with higher levels of EI experience more career success, make more effective leaders, build stronger personal relationships (Cooper, 1997), and enjoy better health (Gardner, 2005; Slaski & Cartwright, 2000) than their less emotionally intelligent counterparts. Some researchers hold that work behaviours such as employee commitment, teamwork, development of talent, innovation, customer loyalty, and quality of service can be influenced by EI (Zeidner et al., 2004). Others have found that EI can predict work-related outcomes such as job performance (Bachman, Stein, Campbell & Sitarenios, 2000; Van Rooy & Viswesvaran, 2004), work satisfaction (Gardner, 2005; Slaski, as cited in Zeidner et al., 2004), morale (Slaski, as cited in Zeidner et al., 2004), and success in the workplace (Cherniss et al., 2006).

2.2.4 EI and well-being in teachers

A meta-analysis conducted by Schutte et al. (2007), studied the relationship between EI and health (n = 7898). Significant correlations were found between EI and better health, more specifically, EI and mental (r = 0.29), psychosomatic (r = 0.31), and physical health (r = 0.22, p = 0.002). In other words, this study proved that higher levels of EI are undeniably associated with better overall health. Furthermore, EI has also been found to be linked with general life satisfaction (Bar-On, 2000; Extremera & Fernandez-Berrocal, 2005; Gignac, 2006). Research by Mikolojczak et al. (2007) indicates that individuals with higher levels of EI experience lower levels of burnout and somatic problems when they are confronted with emotional labour.

A study of 330 human service professionals conducted by Oginska-Bulik (2005) is particularly relevant and noteworthy for the educational sector. The study's results revealed that human service workers, such as teachers, nurses and social workers, generally experience high levels of stress (stress in teachers was found to be the highest). In addition, lower levels of occupational stress and negative health outcomes were experienced by those who reported higher levels of EI. Hence, it was

found that EI fulfils a buffering role in preventing negative health outcomes and mental health disorders (Oginska-Bulik, 2005; Slaski & Cartwright, 2000). The study provides empirical evidence which suggests that by increasing personal resources of employees, such as EI, health protection and the reduction of stress could be achieved (Oginska-Bulik, 2005).

A study by Gardner (2005) forms the groundwork for this research. Gardner started by empirically examining the relationship between EI and occupational stress, as well as the relationship between EI and the consequences of stress. Results showed that EI had a relationship with psychological health (r = -0.30, p < 0.01, n = 319), physical health (r = -0.21, p < 0.01, n = 320), external job satisfaction (r = 0.14, p < 0.05, n = 320), internal job satisfaction (r = 0.22, p < 0.01, n = 320), and organisational commitment (r = 0.15, p < 0.01, n = 317). Significant correlations were also found between emotional control (a sub-dimension of the SUEIT) and both work-family- (r = -0.20) and family-work conflict (r = -0.18). Consequently, Gardner (2005) developed an EI training program to teach employees (i.e. teachers) how to utilise the dimensions of EI more effectively in the workplace, as well as to teach them how to deal with the negative emotions that arise from the experience of occupational stress. An empirical evaluation of the effectiveness of the training program (with a longitudinal design and convenience sample) revealed that it was successful in improving EI levels, decreasing feelings of stress, as well as improving the consequences of stress (Gardner, 2005). In summary, this study demonstrated that a training program, which specifically focuses on the emotional experiences of teachers, is able to successfully help them deal with the experience of occupational stress, the outcomes of stress, and ultimately improve their overall well-being.

From the literature, it is clear that high levels of EI are beneficial to an individual and to those around him/her. Although limited evidence currently exists, it would seem that EI can be developed (Dulewicz & Higgs, 2004; Fletcher, Leadbetter, Curran & O'Sullivan, 2009; Gardner, 2005; Nelis, Quoidbach, Mikolajczak & Hansenne, 2009; Slaski & Cartwright, 2002). It may therefore be beneficial to train teachers to develop and enhance their levels of EI as it will not only benefit the teachers, but the school and its pupils as well.

2.2.5 Developing EI

The debate of whether, and to what extent EI can be developed, is an ongoing point of discussion between scholars in this field. Generally there is emerging agreement that EI is developable, but researchers seem to differ on their views regarding the extent to which this development is possible (Dulewicz & Higgs, 2004).

A study by Slaski and Cartwright (2002), examined the relationship between EI, stress, well-being and performance with 224 managers in a large retail organisation. The objective of this study was to evaluate the efficacy of an EI development program. The results showed that EI improved significantly following participation in the program. Similarly, a very recent study by Fletcher et al. (2009), further corroborate the notion that EI can be developed. These researchers piloted a study with the aim of investigating whether developmental training could increase third year medical students' EI. The students' (n = 38) EI was assessed by means of the Bar-On EQ-i. Analysis of the results indicated that there was in fact a borderline positive effect on the total EQ-i score for the intervention group, with a statistically significant difference between the control and intervention groups. In another recent study, Nelis et al. (2009) investigated whether EI could be developed among French speaking young adults (n = 37) using an experiential design and a theoretically grounded training program (based on trait EI). The effectiveness of the intervention was assessed by means of a global measure of trait EI, as well as several measures that assessed the different branches of EI independently. The results of this study showed that the training group had significantly higher scores on trait EI after the training program concluded. Moreover, the training group showed significant changes in several competencies (i.e. emotional identification, emotional management) when compared to the control group. Perhaps the most important finding of this study was that all the positive changes remained significant 6 months after completion of the intervention (while the control group showed no improvement over time). The notion that it is possible to develop EI is corroborated by Dulewicz and Higgs (2004). They reviewed three studies with the aim of exploring the extent to which EI is amendable to development. Their main finding was that there is enough evidence to support the notion that EI can be developed.

2.3 STRESS

Due to the negative outcomes associated with stress[4], the construct has received a lot of research attention in the last few decades. Consequences of stress do not only affect individuals (e.g. various diseases), but also the organisation (e.g. increased absenteeism, labour turnover, loss of productivity, and disability pension costs) (Van der Hek & Plomp, 1997).

It is normal for any person in whichever occupation to experience some degree of stress. Therefore, teacher stress is not new or uncommon. However, in the last few years, teaching has been identified as one of the highest stress occupations (Engelbrecht et al., 2003; Oginska-Bulik, 2005). Reasons for this occurrence (especially in South Africa) include, but are not restricted to, the long working hours, high workloads, lack of discipline and respect, lack of recognition (Department of Education, 2005), the complex and multiple roles that teachers have to perform (e.g. social worker, nurse, educator, police officer, Chisholm et al., 2005) and the new curriculum enforcing learner-centred or cooperative teaching methods (Robinson, 1999). Hence, the following section will review the stress construct as well as explicate how the stress process affects teachers specifically.

2.3.1 Conceptualising stress

There are numerous definitions of stress available in the literature, such as Gmelch and Burns (1994, p. 83) who define it as "one's anticipation of his or her inability to respond adequately to a perceived demand, accompanied by the anticipation of negative consequences for an inadequate response". Other definitions of stress generally hold two common themes: there is an imbalance between perceived environmental demands and the perceived ability to deal with such demands, and it is generally thought to be subjective in nature, rather than objective (Cox, 1978; Lazarus & Folkman, 1984; McGrath, 1970). In other words, a person's experience of occupational stress occurs with their appraisal of their individual ability to deal with exposure to psychosocial and physical conditions in the workplace (Cooper, Clarke & Rowbottom, 1999).

[4] The words occupational stress and stress are used interchangeably throughout this thesis.

As a result of the abundance of definitions available for stress, numerous etiological models addressing the process of stress have been developed. Some of the most well-known models are Karasek's Demand-Discretion Model of Occupational Stress (Karasek, 1979) and the Person-Environmental (P-E) Fit theory (Landsbergis, 1988).

Karasek's Demand-Discretion Model of occupational stress (also known as the job strain model) is one of the most popular and influential models of occupational stress in the literature (Guglielmi & Tatrow, 1998). This model suggests that job discretion or decision latitude moderates the effects of job demand on strain (Karasek, 1979). It is based on the principle that the interaction of job demands and job discretion can predict psychological strain and physical health. 'High strain' jobs refers to jobs with high levels of job demand and low levels of job discretion, while 'low strain' jobs have low levels of job demand and high levels of job discretion (Fletcher & Jones, 1993).

The other influential theory is the Person-Environmental (P-E) Fit theory, which suggests that stress results from demands (such as the difficulty level of the job) that the person may not be able to meet, or insufficient supplies (such as pay) to meet his/her needs (Landsbergis, 1988). In other words, there is a mismatch between the demands and requirements of the job and the person's actual or perceived ability to meet those demands.

According to Engelbrecht et al. (2003, p. 294), teacher stress, specifically, is "an interactionist concept that can be described as a complex process involving an interaction between the teacher and the environment that includes a stressor(s) and a response". They define a stressor as a factor that produces stress on the individual, either originating from the self or from the environment. The individual ascribes a positive or negative meaning to this factor, and he/she consequently experience this as either a threat or a challenge.

2.3.2 Antecedents and consequences of stress

A South African study by Engelbrecht et al. (2003) investigated the occurrence of stress in teachers. They proposed that stressors in the teaching profession can be grouped into four categories: (a) difficulties with learners (motivation and control of

learners, poor learner attitudes and learner rebellion); (b) time pressure; (c) poor ethos due to poor staff relations (conflict and ineffective communication); and (d) poor working conditions (heavy work load, large classes, additional administrative responsibilities, lack of support and encouragement, financial constraints, and lack of educational supplies). They furthermore pointed out that teachers in South Africa are exposed to a vast variety of multi-dimensional stressors. More specifically, the frequency, intensity, and duration of perceived stress cause devastation and this could eventually lead to teachers leaving the profession. International studies mention other noteworthy factors that have been identified as the causes of teachers' stress. Some of these factors include interpersonal demands, lack of professional recognition, discipline problems in the classroom, the diversity of tasks required, bureaucracy, lack of support, workload, time pressure, the amount of paperwork required, large class sizes, isolation, fear of violence, lack of classroom control, role ambiguity, limited professional opportunities, and lack of available resources (Kokkinos, 2007; Montgomery & Rupp, 2005; Petty, 2007).

Physical illness, psychological suffering, poor performance, and a decreased quality of life are just a few outcomes that have been associated with occupational stress (Sandlin & Chen, 2007). In addition, decreased general well-being, level of job satisfaction, organisational commitment and increased work family life conflict, has all been identified in the literature as outcomes of occupational stress in teachers (Gardner, 2005). The rest of this chapter will focus on discussing the role of EI in the stress process, as well as delineating the different outcomes of stress (i.e. job satisfaction, organisational commitment, work-family conflict) that this study focuses on (as well as contextualising them specifically within the teaching environment).

2.3.3 Stress and EI

Slaski and Cartwright (2003, p. 234) explain the link between EI and stress by stating that it is "founded on the notion that negative emotions and stress are the result of some dysfunctional relationship between aspects of the self and the environment, and that the ability (EI) to 'read' and manage emotions in the self and others is a moderator in this process". Numerous studies have investigated this notion.

For example, Slaski and Cartwright (2002) investigated the link between health, performance, and EI. Due to the suggestion that EI could have an influence on an individual's ability to effectively cope with environmental pressures and demands, they hypothesised that EI is an important factor in determining psychological well-being and life success. In their study, they found that individuals with higher levels of EI experienced less stress, had significantly better levels of health and well-being, and were better performers than their counterparts with lower levels of EI. Similarly, Dulewics, Higgs and Slaski (2003) report strong correlations between EI and physical- and psychological health. Mikolajczak et al. (2007) found that EI is a significant predictor of somatic and psychological symptoms in the stress process. Slaski and Cartwright's (2002) results furthermore indicated that EI could moderate the stress process and even increase an individual's resilience against stress. This is corroborated by a South African study that investigated the relationship between EI, occupational stress and health in nurses (Brand, 2007). A clear effect of the dimensions of EI on stress and health was reported. EI was shown in this study, and others, to have a buffering effect against stress, and facilitated good health in nurses (Brand, 2007; Landa, Lopez-Zafra, Martos & Aguilar-Luzon, 2007).

Similarly, in a study by Ciarrochi, Deane and Anderson (2002), EI was found to have a moderating role in the relationship between stress and other measures of psychological health such as depression, hopelessness and suicidal proneness. This is indicative of a negative relationship between stress, poor health and levels of EI. It also provides evidence that individuals with higher levels of EI will be able to cope more effectively with environmental pressures and demands, than individuals with lower levels of EI.

2.3.4 Stress interventions

Some researchers suggest that stress interventions are not only advantageous for the individual, but also for the organisation. For example, Aldana (as cited in Pollak Eisen, Allen, Bollash & Pescatello, 2008) found lower levels of absenteeism and health care costs associated with occupational health promotions programs in a meta-analysis of 72 studies. Similarly, other researchers (e.g. Gardner, 2005; Zeidner, Roberts & Matthews, 2004) argue that, given the evidence of EI as a moderator in the stress process, it could be very beneficial for organisations to develop employees' EI levels. This could ultimately result in a decrease in the experiences and outcomes of stress of their employees, and benefit the organisation as a whole.

This notion was investigated by several researchers such as Slaski and Cartwright (2002) and Gardner (2005). Slaski and Cartwright (2002) showed that EI could moderate the stress process and even increase an individual's resilience towards stress. They furthermore argued that this finding is very important because if EI could be developed, it could act as a stress management technique. This was corroborated by a second study done by Slaski and Cartwright (2003) where they found that EI could be taught and this could eventually help to reduce stress and, ultimately, improve employees' health, well-being and performance.

As previously mentioned, Gardner (2005) conducted a study where she aspired to develop EI in teachers, with the ultimate aim of increasing their overall levels of health and well-being. Several noteworthy findings resulted from her study (reported previously in section 2.2.4). The findings of Gardner's study is important for this study, as she proved that developing EI in teachers is possible, and more importantly, very beneficial to their overall well-being.

2.4 JOB SATISFACTION

As mentioned previously, teaching has become one of the most stressful occupations (Oginska-Bulik, 2005) due to the multiple and complex roles that teachers are expected to fulfil (Chisholm et.al, 2005). In 2005, the South African Department of Education noted that more teachers leave the profession than those entering it (Department of Education, 2005). One of the numerous reasons why educators decide to leave the profession is their low levels of job satisfaction (Department of Education, 2005). The Department, more specifically, also expressed their concern that low levels of job satisfaction could impact negatively on the supply of teachers who have left the profession, but who may consider returning, should there be a critical immediate shortage (Department of Education, 2005). Gardner (2005) successfully demonstrated that exposure to occupational stressors relate to job satisfaction levels (as an outcome of stress in teachers). Hence, this section briefly discusses job satisfaction (i.e. the first outcome of occupational stress that was studied) within the context of this study.

2.4.1 Conceptualising job satisfaction

Job satisfaction has been defined by Locke (as cited in Green & Reese, 2006, p. 318) as the "the pleasurable emotional state resulting from the appraisal of one's job as achieving or facilitating the achievement of one's values". Kalleberg (1977, p. 126) similarly defines job satisfaction as "an overall affective orientation on the part of individuals toward work roles which they are presently occupying". Researchers have distinguished commitment from job satisfaction by stating that commitment is an affective response to beliefs about the organisation, while job satisfaction pertains more to the responses of experiencing specific job tasks (Glisson & Durick, 1988).

Job satisfaction has been a popular concept of investigation in literature. One of the most used, known, and widely respected theories of job satisfaction are the motivation-hygiene, or two-factor theory, developed by Frederick Herzberg. This theory is based on the premise that "the things people find satisfying in their jobs are not always the opposite of the things they find dissatisfying" (Hollyforde & Whiddett, 2002, p. 103). According to this theory, motivation is a function of job satisfaction.

Furthermore, Herzberg postulated that job dissatisfaction is not the opposite of job satisfaction, and vice versa – the opposite is *no* job (dis)satisfaction.

2.4.2 Antecedents and consequences of job satisfaction

According to Locke's definition of overall job satisfaction, the causes of job satisfaction lie in the relationship between an employee and his/her job. Herzberg (as cited in Petty, 2007) considered the following five factors to be strong determinants of job satisfaction: achievement, recognition, the work itself, responsibility, and advancement.

Important areas to which job satisfaction have been linked include employee turnover (dissatisfied employees are more likely to leave the organisation than satisfied employees); attitude towards the organisation (a link between a positive attitude and job satisfaction have been found); and mental health or well-being (poor health is related to low levels of job dissatisfaction, while good health is linked with high levels of job satisfaction). The two-factor theory of Herzberg also state that job satisfaction could lead to increased productivity (Hollyforde & Whiddett, 2002).

2.4.3 Job satisfaction, organisational commitment and EI

Sy, Tram and O'Hara (2006) recently investigated the interaction between managers' EI (n = 62) and employees' EI (n = 187) on job performance. EI was assessed by a sixteen item self-report measure (Wong & Law, 2002), job satisfaction with three items from the Michigan Organisational Assessment Questionnaire (Seashore, Lawler, Mirvis & Cammann, 1982), and job performance with an instrument developed by Heilman, Block and Lucas (1992), with three adapted items. Results revealed a positive relationship between EI and job satisfaction for both the managers and employees (r = 0.35 and r = 0.30 respectively, $p < 0.01$). Furthermore, managers' EI had a more positive correlation with job satisfaction for employees with low EI than for employees with high EI, with a significant incremental change in R_2 of 0.02 ($p < 0.05$). In other words, the results showed that "manager's EI associates more positively with job satisfaction for employees with low EI than for employees with high EI" (Sy et al., 2006, pp. 270-271).

The notion that EI and job satisfaction is related was corroborated in Gardner's (2005) study. She found that total EI correlated significantly (albeit weak to moderate) with both dimensions of job satisfaction (external job satisfaction: $r = 0.14$, $p < 0.05$; internal job satisfaction: $r = 0.22$, $p < 0.01$). External job satisfaction pertains to aspects that are external to the individual's position (e.g. pay and security), while internal job satisfaction refers to unique aspects of an individual's position (e.g. level of responsibility and job variety) (Gardner, 2005). This indicates that employees who reported using the EI dimensions in their workplace also reported feeling more satisfied with aspects of their job (Gardner, 2005).

A study by Güleryüz, Güney, Aydin and Aşan (2008) investigated the mediating effect of job satisfaction between EI and organisational commitment of nurses ($n = 267$). Measurement instruments included the Emotional Intelligence Questionnaire developed by Wong and Law (2002), the Job satisfaction Questionnaire developed by Hackman and Oldham (1975), and the Organisational Commitment Questionnaire developed by Mowday, Steers and Porter (1979). The existence of significant positive relationships between EI and OC ($r = 0.23$), and EI and job satisfaction ($r = 0.24$) was supported by this study. Furthermore, the correlation between EI and OC became insignificant ($p \geq 0.1$) when job satisfaction was controlled for: indicating that job satisfaction is an antecedent to OC (EI has an effect on OC, but purely through job satisfaction). Hence, this study illustrated that job satisfaction is a mediator between EI and OC. Other researchers have also shown that employees who have higher levels of EI are more likely to be more committed to their organisations and have higher levels of job satisfaction (Güleryüz et al., 2008; Kafetsios & Zametakis, 2008; Sy et al., 2006; Wong & Law, 2002).

2.4.4 Job satisfaction of teachers: research evidence

A study by Van Houtte (2006) aimed to gauge the level of job satisfaction of 711 teachers in 34 secondary schools in Belgium. Job satisfaction was assessed by means of the Job Descriptive Index (Smith, Kendall & Hulin, 1969). Individual characteristics that could influence job satisfaction were also measured. These included gender, age, socioeconomic status, and subject matter the individual teaches. The results revealed that socioeconomic status did not influence the teachers' job satisfaction significantly. What did, however, make a big contribution to

their job satisfaction, was subject matter and trust in pupils (trust was measured by a 5-point scale derived from Midgley, Feldlaufer & Eccles, 1988). More specifically, teachers who taught practical subjects (e.g. woodwork, physical education), as opposed to general subjects (e.g. history, mathematics), were found to have higher levels of job satisfaction. Similarly, teachers who felt that they could trust pupils were found to have higher levels of job satisfaction (Van Houtte, 2006).

A very recent Norwegian study (Skaalvik & Skaalvik, 2009) provided insightful suggestions regarding the extent to which school context affects job satisfaction. Teachers' perception of the school context was assessed by means of four dimensions. These included: "(a) teachers' feelings of having cognitive and emotional support from the school leadership, that they could ask the school leadership for advise, and that their relation to the school leadership was one of mutual trust and respect, (b) teachers' feeling of having a heavy workload, having to prepare for teaching in the evenings and weekends, and having a hectic school-day with little time for rest and recovery, (c) teachers' experience of being trusted by the parents, of communicating well with parents, and that cooperation with parents were easy and adaptive, and (d) teachers' feeling of having autonomy regarding choice of teaching methods, educational strategies and content within the limit set by the national curriculum" (Skaalvik & Skaalvik, 2009, p.520). More specifically, the study examined the relationship between these school context variables, teacher burnout, and teacher job satisfaction, as well as whether teachers' perception of contextual variables at school predicted their burnout and job satisfaction. Weak to moderate relationships emerged between the different school context variables (Skaalvik & Skaalvik, 2009). This result indicated that teachers assessed the contextual variables independently from one another, and that their evaluation of these variables is not a reflection of their general attitudes and opinions of the school where they are working (Skaalvik & Skaalvik, 2009). Therefore, by improving one aspect of the school's context, it will not necessarily result in changes of teachers' perceptions of the other contextual variables. The researchers postulate that in order to improve teachers' working conditions and job satisfaction, the school context should be conceptualised as a multidimensional construct. The contextual variables that could be the key driving force behind burnout and reduced job satisfaction in teachers, most probably varies from one school to another (Skaalvik & Skaalvik,

2009). Another interesting finding from this study, was that years of experience as a teacher had a weak, negative relationship with job satisfaction (r = -0.24). In other words, a weak tendency exists for teachers to, over time, become less satisfied with their work as an educator (Skaalvik & Skaalvik, 2009).

2.5 ORGANISATIONAL COMMITMENT

Organisational commitment is one of the most researched employee attitudes in organisational settings (Cohen, 2007) and is known to be related to experiences of occupational stress. Many human resource managers consider it extremely important to develop and maintain a workforce that is highly committed to the organisation. Organisational commitment was the second outcome of occupational stress that was investigated in this study.

2.5.1 Defining organisational commitment

Organisational commitment is defined by Allen and Meyer (1996, p. 252) as "a psychological link between the employee and his/her organisation that makes it less likely that the employee will voluntarily leave the organisation". Meyer and Allen (1997) developed a three-component model of commitment, where commitment is conceptualised in terms of three separate psychological states, namely "emotional attachment to the organisation (affective commitment), recognition of the costs associated with leaving the organisation (continuance commitment), and perceived obligation to remain with the organisation (normative commitment)" (Lee, Allen, Meyer & Rhee, 2001, p. 597). Therefore, people remain with the organisation because they want to (affective), because they need to (continuance), or because they feel they have to (normative).

2.5.2 Outcomes of organisational commitment and organisational commitment as a stress mediator

Highly committed employees are said to be more productive and willing to assume more responsibility (Siu, 2002). Siu (2002) reports that, in a study conducted in China, organisational commitment was positively related to job satisfaction, physical- and mental well-being of employees. Cohen (as cited in Arnold & Davey, 1999) also found that organisational commitment, particularly commitment based on emotional attachment (affective commitment), has a negative association with voluntary

turnover and a positive association with work performance. This is supported by a longitudinal study by Arnold and Davey (1999) who investigated how work experiences affects intention to leave and employee turnover. Organisational commitment was measured with the Organisational Commitment Questionnaire (OCQ) (Mowday et al., 1979), and intention to leave was measured with three items: "I frequently find myself thinking about leaving this organisation", "I often daydream about what it would be like to work in another organisation", and "I intend to apply for jobs at other organisations in the next year" (Arnold & Davey, 1999, p. 219-220). In addition, a specifically tailored scale for experiences at work was developed. Work experiences (such as career development, relationship with supervisor, relationship with colleagues, and pay and benefits) had significant correlations with organisational commitment, intention to leave, and employee turnover. More specifically, significant correlations between organisational commitment and intention to leave emerged (r = -0.60 at time 1, and r = -0.59 at time 2; n = 474).

More importantly, organisational commitment has been proven to be a stress mediator. Lee et al. (2001), for example, report that committed employees have positive attitudes and are less distressed by occupational stressors and, as a result, perceive less stress. This finding was corroborated by a study conducted by Begley and Cazjka (as cited in Siu, 2002, p. 530). These authors found that commitment has a buffering effect on the relationship between stress and job displeasure, meaning that stress increases job displeasure only when organisational commitment is low.

2.5.3 Organisational commitment and EI

Nikolaou and Tsaousis (2002) studied the effects of EI on occupational stress and organisational commitment. The Emotional Intelligence Questionnaire (EIQ) was used to measure EI and The Organisational Stress Screening Tool (ASSET) was used to assess workplace stress. These authors reported that employees who scored higher on EI also scored higher on organisational commitment (r = 0.53; p < 0.01). They argued that the reason for this could be due to the fact that employees, who feel more valued and less distressed in their positions, have increased feelings of commitment and loyalty both from, and towards their organisation.

Similarly, in Gardner's (2005) study, EI was found to have a significant positive correlation with organisational commitment (r = 0.15, n = 317). Measurement instruments included the SUEIT (Palmer & Stough, 2001) and the Organisational Commitment Questionnaire (OCQ; Mowday et al., 1979). This finding implies that employees, who reported using EI in the workplace (e.g. employees who reported being able to understand and manage their own emotions, as well as those of others in the workplace), also reported feelings of commitment to their organisation. This notion is supported by Carmeli (2003) and Güleryüz et al. (2008) who have reported similar findings. It is argued that employees with higher levels of EI will be more committed to their organisation because they have an emotional attachment to their organisation.

2.5.4 Organisational commitment of teachers: research evidence

Bogler and Somech (2004) conducted a study that focused on the relationship between teacher empowerment and teachers' organisational commitment, professional commitment (i.e. in addition to the employee's commitment to the organisation, the extent to which he/she regards the work itself and relationships with colleagues as meaningful) and organisational citizenship behaviour towards the school. A quantitative questionnaire which combined the four scales of organisational commitment, professional commitment, organisational citizenship behaviour and teacher empowerment was utilised for this study. The results indicated that two of the six subscales of the School Participant Empowerment Scale (utilised to measure teacher empowerment), namely self-efficacy (i.e. one's perception of one's competence and ability to act), and status (i.e. the professional respect and admiration teachers perceive they earn from colleagues), significantly predicted all three outcomes (i.e. organisational commitment, professional commitment and organisational citizenship behaviour). Professional growth (i.e. teachers' perceptions that the school provides them with opportunities to develop and grow professionally) significantly predicted organisational commitment and professional commitment, while participation in decision-making significantly predicted organisational citizenship behaviour (Bogler & Somech, 2004).

Contextual factors also affect teachers' levels of commitment, as a recent study suggested that a positive association between the environment at the school and

teaching commitment, exists (Huang & Waxman, 2009). The instrument utilised to measure the environment of the school was an adapted version of the Science Teacher School Environment Questionnaire (Huang, 2003, 2006). After conducting a factor analysis, the new factor structure contained the following factors: teacher-student relations, collegiality, principal leadership, professional interest, gender equity, staff freedom, teaching resources, work pressure, and teacher influence. One of the most significant findings of this study was that professional interest had the most influence on job satisfaction, followed by staff freedom (n = 216 student teachers). Higher levels of job satisfaction were found with teachers who showed an interest in discussing teaching materials with colleagues and engaging in innovative teaching strategies. Similarly, higher levels of job satisfaction were found with teachers who enjoyed greater autonomy in teaching methods and materials, and who had less supervision. Some of the environmental factors that were found to determine tenure included the teachers' perceptions of the extent of staff freedom at the school (i.e. the stricter the supervision and extent of regulations they had to follow, the less inspired they were to stay), and gender equity (i.e. the greater the equal and fair treatment of males and females, the longer their intention to remain in the teaching profession). Furthermore, results indicated that the most significant facet of teachers' intention to remain with the school was collegiality. Teachers, who felt that they received more support and encouragement from colleagues, were more determined to remain with the school (Huang & Waxman, 2009).

2.6 WORK-FAMILY CONFLICT

The third outcome of occupational stress that was studied in this research is work-family conflict. In the lives of most adults, work and family are the two most central domains. It is therefore quite normal for a person to experience some degree of work-family conflict. It is important to be aware of this, as excessive levels of this type of conflict have been linked with reduced overall levels of life satisfaction and psychological well-being (Noor, 2004).

2.6.1 Theories about work-family conflict

A valuable framework to understand how men and women try to balance several roles is the Role Theory (Kahn, Wolfe, Quinn, Snoek & Rosenthal, 1964). Within this theory, the scarcity hypothesis best describes the process of role conflict. According to this hypothesis, individuals have a fixed amount of time and energy. Therefore, when roles increase, the probability of role conflict and negative consequences (such as psychological distress and physical exhaustion) also increase (Noor, 2004). Similarly, the shortage of energy creates conflict which in turn creates stress and anxiety. Evidence suggests that multiple roles lead to perceptions of conflict and overload, which have negative consequences for the well-being of an individual (Grant-Vallone & Donaldson, 2001). Role conflict is therefore described as the concurrent occurrence of two (or multiple) sets of role pressures in such a manner that the fulfilment of one will make fulfilment with the other more difficult. They are therefore mutually incompatible. One such inter-role conflict is work-family conflict (Noor, 2004).

A different, and the most empirically supported, view of understanding work-family conflict is the spillover hypothesis. This hypothesis suggests that employees' attitudes and experiences in one sphere (such as work) will have positive correlations with their experiences and attitudes in the other sphere (such as family). Both positive and negative spillover effects are possible, but an abundance of research has been done on negative spillover, also known as work-family conflict (Brough, O'Driscoll & Kalliath, 2005; Hammer, Saksvik, Nytro, Torvatn & Bayazit, 2004; Rantanen, Kinnunen, Feldt & Pulkinnen, 2008).

2.6.2 Types of conflict and outcomes of work-family conflict

A distinction has been made between two types of work-family conflict, namely work-interfering-with-family (WIF) and family-interfering-with-work (FIW). The first conflict occurs when work-related activities interfere with responsibilities at home, while the latter occurs when family-role responsibilities interfere in work activities. Although these two constructs are strongly correlated with each other, they are also conceptually and empirically different. Predictors of WIF conflict are variables that

concern the work-domain, while family-domain variables are the best predictors of FIW (Noor, 2004).

Some of the physical and psychological symptoms that are caused by work-family conflict include increased levels of stress, depression, physical ailments, somatic complaints, lower life satisfaction, lower quality of family life, lower energy levels (Grant-Vallone & Donaldson, 2001), poor job performance, psychological distress, lower job satisfaction, lower organisational commitment, lower life satisfaction, withdrawal behaviour, increased turnover (Balmforth & Gardner, 2006; Britt & Dawson, 2005) and even burnout (Brough et al., 2005). It is apparent that evidence strongly supports the notion that work-family conflict is related to the health and well-being of employees (Mesmer-Magnus & Viswesvaran, 2005; Noor, 2004). This notion is corroborated by Grant-Vallone and Donaldson (2001) who studied the longitudinal relationship between work-family conflict and employee well-being. Work-family conflict could predict positive well-being in the sense that employees who reported higher levels of work-family conflict also reported lower levels of positive well-being. Evidence also suggests that work-family conflict in employees could be detrimental to the organisation they work for (Konrad & Mangel, 2000).

2.6.3 Work-family conflict of teachers: research evidence

A recent study (Cinamon, Rich & Westman, 2007) examined how generic stressors (i.e. flexibility of work hours, number of work hours, manager support, colleague support, and spousal support) from the work and family domains, as well as variables that are unique to high school teachers, influenced work-family conflict of high school teachers. An adaptation of the Work-Family Conflict Scale (Gutek, Searle & Klepa, 1991) was utilised to measure work-family conflict. Results indicated that generic stressors as well as variables unique to the teaching profession contributed significantly to teachers' work-family conflict. An interesting finding was that flexibility of work hours showed a positive relationship with work-family conflict. The researchers argued that with flexible work hours, teachers can leave the school earlier, and take work tasks home with them. Hence, flexible work hours allow them to work less time at the school, but more at home (Cinamon et al., 2007). Perhaps the most important finding of this study was that both work-family and family-work conflict predicted teacher burnout (Cinamon et al., 2007). Cinamon and Rich (2005)

also conducted a study of work-family conflict in teachers. Specifically, they investigated work-family conflict among female teachers. Interestingly, work-family conflict among female teachers did not seem to differ considerably from those of female employees in other occupations (e.g. lawyers and computer professionals). However, the authors noted from their results that teachers in the early stages of their career as educators were especially vulnerable to experiencing work-family conflict (Cinamon & Rich, 2005).

Given the negative consequences of work-family conflict mentioned previously, interventions aiming to reduce the unfavourable consequences of work-family conflict seem to be beneficial to the individual as well as the organisation. For example, Brough et al. (2005) found that organisational and family interventions positively predicted subsequent family satisfaction. Therefore it is argued that the EI intervention (implemented in this research) could result in a significant positive change in the work-family conflict experienced by teachers.

2.6.4 EI, job satisfaction, organisational commitment and work-family conflict

Job satisfaction and organisational commitment are the two most researched constructs with strong correlations to work-family conflict (Bruck, Allen & Spector, 2002; Mesmer-Magnus & Viswesvaran, 2005). Individuals who are more committed to their jobs (i.e. show higher levels of organisational commitment) anticipate more work-family conflict than those individuals showing lower levels of commitment (Britt & Dawson, 2005). Some researchers note that organisational commitment leads to job satisfaction, while others state that both are attitudinal variables that mirror an employees' attitude towards the organisation (Namasivayam & Zhoa, 2007). In a study by Namasivayam and Zhoa (2007) the moderating effects of organisational commitment on the relationship between work-family conflict and job satisfaction was studied. They found that "work-family conflict related negatively to job satisfaction but to the extent that individuals were committed to their organisations - the effect of work-family conflict on job satisfaction is likely to be attenuated" (Namasivayam & Zhoa, 2007, p. 1220). Nevertheless, job satisfaction has been found to have a significant and negative correlation with work-family conflict (Britt & Dawson, 2005; Bruck et al, 2002; Namasivayam & Zhoa, 2007).

It has been reported that the development of EI in an individual could lead to increased levels of job satisfaction (e.g. Gardner, 2005). In her study, Gardner (2005) found that employees who reported using EI dimensions in the workplace, also report increased positive feelings with some aspects of their jobs (job satisfaction). This could, in turn, lead to decreased levels of work-family conflict, as job satisfaction has been found by, among others, Britt and Dawson (2005) to have a significant and negative correlation with work-family conflict (r = -0.28). This notion is supported by Gardner (2005) who found significant negative relationships (albeit weak to moderate) between Emotional Control (a dimension of EI) and both work-family-conflict and family-work-conflict. This suggests that employees who report being able to control strong emotional states at work, also report having less conflict between work to family life and family to work life. Similarly, in a study by Carmeli (2003) it was also reported that emotionally intelligent individuals are better able to handle work-family conflict.

2.7 CHAPTER SUMMARY

In this chapter EI, stress, job satisfaction, organisational commitment, and work-family conflict were discussed comprehensively. The aim was to provide some historical perspective, as well as the theoretical foundation for each of the five constructs studied in this research. Different definitions, models and measurements of each of the constructs were introduced. The next chapter will focus on the research methodology employed to conduct the study.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 INTRODUCTION

The previous chapter provided a systematic review of constructs in this study (i.e. EI, stress, job satisfaction, organisational commitment and work-family conflict). This chapter will focus on the rationale, objectives and aims of this research study. The first part will lay the foundation for the study and present the various research hypotheses and objectives that were developed to test the predicted relationships between the abovementioned constructs. The second part of this chapter will focus on the research methodology, sampling, participants and details regarding the intervention. Threats to this study's validity will be comprehensively discussed as well as the measurement instruments that were utilised. Descriptive statistics obtained for each measurement instrument utilised in this study will also be presented.

3.2 RATIONALE AND AIM OF THIS RESEARCH

3.2.1 Rationale and research questions

Previous research has demonstrated that behaviours underpinning the dimensions of EI (e.g. Emotional Control, Emotional Management) can be learned and that training programs focused on the emotional experiences of employees in the workplace can be effective in improving employee well-being, as well as decreasing feelings of occupational stress (Gardner, 2005; Hansen et al., 2007; Slaski & Cartwright, 2003). This research aimed to explore whether the implementation of an EI intervention (i.e. training program) was instrumental in combating various negative facets of the occupational stress process, experienced by teachers. These include the experience of stressors (i.e. several work roles that have been associated with stress, e.g. Role Overload, Role Insufficiency), strains (i.e. physical and psychological health), as well as the outcomes of stress (i.e. job satisfaction, organisational commitment and work-family conflict).

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

1. *Emotional Intelligence*

   Can EI be developed? Will an increase in an individual's EI score be evident after participation in the EI training program?

2. Occupational Stress

   Will the perceived levels of occupational stress decrease after participation in the EI program?

3. Employee Strain

   Will better psychological and physical health be evident after participation in the EI training program?

4. Exploration of Changes in Outcomes of Stress

   Will there be a change in levels of job satisfaction, organisational commitment and work-family conflict from before the training program to after the training program?

More specifically this study aimed to firstly, explore whether an EI intervention program was successful in increasing participants' levels of EI, decrease levels of occupational stress and work-family conflict, as well as improve job satistaction and organisaitonal commitment. Secondly, this research explored the direct relationship EI has with stressors and strains (as a replication of previous research) as well as the role of EI as a moderator in the stress-health relationship The objectives and hypotheses for this study are outlined below.

3.2.2 Evaluation of the EI training program

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

Hypothesis 1: Emotional intelligence

It is hypothesised that the level of EI will increase following participation in the EI training program.

Hypothesis 2: Occupational stress

It is hypothesised that the perceived level of occupational stress will decrease following participation in the EI training program.

Hypothesis 3: Employee strain

It is hypothesised that levels of psychological- and physical health will improve following participation in the EI training program,

Hypothesis 4: Changes in outcomes of stress

It is hypothesised that the levels of job satisfaction and organisational commitment will increase, and that the level of work-family conflict will decrease, following participation in the EI training program.

3.2.3 General exploration of EI, stress and strain relationships

Three broad objectives were formulated to investigate the relationship between EI, occupational stress and strains (measured as employee physical- and psychological health).

Objective 1: Exploration of the relationship between emotional intelligence and occupational stressors before, during and after the EI intervention program

Is total EI, as measured by the SUIET at T1, T2 and T3[5] (Palmer & Stough, 2001) significantly related to stressors (i.e. Role Overload, Role Insufficiency, Role Ambiguity, Role Boundary and Role Responsibility) as measured by the ORQ (Osipow, 1998)?

Objective 2: Exploration of the relationship between emotional intelligence and strain before and after the EI intervention program

A. Explore whether total EI as measured by the SUEIT at T1 and T3 (Palmer & Stough, 2001) is significantly related to psychological health at T1 and T3 (as measured by the GHQ-12, Goldberg & Williams, 1988).

[5] As part of the research design, three measurement points in time were utilised, namely T1, T 2 and T3 (T1 = time 1 measure, T2 = time 2 measure and T3 = time 3 measure). This will be comprehensively explained in section 3.3.2.

B. Explore whether total EI as measured by the SUEIT at T1 and T3 (Palmer & Stough, 2001) is significantly related to physical health at T1 and T3 (as measured by the Physical Health Scale, Winefield, Gillespie, Stough, Dua & Hapuararchi, 2002).

Objective 3: Explore the role of emotional intelligence as a moderator in the stressor-strain relationship

A. To investigate whether there is a significant relationship between stressors (ORQ total score, Osipow, 1998) and psychological health (as measured by the GHQ-12, Goldberg & Williams, 1988) at T1 and T3.
B. To investigate whether there is a significant relationship between stressors (ORQ total score, Osipow, 1998) and physical health (as measured by the Physical Health Scale, Winefield et al., 2002) at T1 and T3.
C. If significant relationships exist for Objectives A and B, to explore whether total EI (Palmer & Stough, 2001) moderated those relationships.

3.2.4 Hypotheses for Emotional Intelligence and respective workplace variables

Based on research evidence reviewed in chapter two of this thesis, three hypotheses were formulated to investigate the relationships between EI and various workplace variables (namely job satisfaction, organisational commitment and work-family conflict) in this study.

Hypothesis 5

It is hypothesised that there will be a significant positive relationship between EI and job satisfaction. That is, higher levels of EI will be associated with higher levels of job satisfaction.

Hypothesis 6

It is hypothesised that there will be a significant positive relationship between EI and organisational commitment. That is, higher levels of EI will be associated with higher levels of organisational commitment.

Hypothesis 7

It is hypothesised that there will be a significant negative relationship between EI and work-family conflict. That is, higher levels of EI will be associated with lower levels of work-family conflict.

3.3 RESEARCH DESIGN AND PROCEDURE

3.3.1 Research design

A quantitative research design was utilised in this study (i.e. questionnaires). Quantitative research allocates numerical values to the social phenomena measured. This research paradigm aims to develop empirical and "observable measurements" (Babbie & Mouton, 2002, p. 53) of constructs in an attempt to bring forth responses from individuals. Statistical analyses are used to test the relationships amongst independent and dependent variables.

This research also utilised a one-group pre-test-post-test research design. With this design, participants are measured in terms of a dependent variable (the pre-test), they are exposed to a stimulus (the intervention) which represents the independent variable, and then they are measured once more in terms of the dependent variable (the post-test). Any differences that are observed between the first and the last measurements on the dependent variable are consequently attributed to the independent variable (the intervention) (Babbie & Mouton, 2002).

3.3.2 Procedure

All the teachers participated in data collection ten weeks (71 days) prior to the commencement of the program, immediately before the program started, and immediately after the program finished. Hence, there were three stages of questionnaire collection:

1. Time one: ten weeks prior to the EI training program (pre-program assessment);
2. Time two: immediate pre-program (pre-program assessment);
3. Time three: immediate post-program (post-program assessment).

In the first pre-program assessment (ten weeks prior to the commencement of the program), participants completed a battery of questionnaires. Included in the first test

battery contained a general information letter, a consent letter to undergo psychometric testing, a demographic questionnaire, as well as the psychometric questionnaire package (see Appendix A). Procedures for the completion were comprehensively discussed with the participants, prior to the commencement of the testing session. This questionnaire pack (i.e. the longer version) consisted of the Swinburne University Emotional Intelligence Test (Palmer & Stough, 2001), the Occupational Roles Questionnaire from the Occupational Stress Inventory – Revised Edition (Osipow, 1998), the General Health Questionnaire – 12 (Goldberg & Williams, 1988), the Physical Health Symptoms scale (taken from Winefield et al., 2002), the Job Satisfaction questionnaire (Warr, Cook & Wall, 1979), the Organisational Commitment Questionnaire (Mowday et al., 1979), and the Work-Family Conflict Questionnaire (Frone & Yardley, 1996). Group sessions were scheduled for the completion of the psychometric measures within a controlled environment.

The second pre-program assessment session entailed testing the teachers on simply two psychometric tests[6]. Only the Swinburne University Emotional Intelligence Test (SUEIT) (Palmer & Stough, 2001) and the Occupational Roles Questionnaire from the Occupational Stress Inventory – Revised Edition (Osipow, 1998) were utilised.

In order to evaluate the immediate success of the program after completion thereof, participants were asked to complete the same battery of questionnaires (i.e. the longer version) they completed prior to the commencement of the program (firtst pre-program measure) at the end of the last program intervention session.

3.3.3 Sampling

A convenience sampling technique was utilised in approaching several schools to take part in the study. More specifically, a form of non-probability sampling, namely reliance on available subjects, was used (Babbie & Mouton, 2002). In this case, schools in close vicinity to the university were considered for inclusion in this study.

[6] Due to time constraints, a shorter version of the questionnaire pack was utilised in the second pre-program assessment.

Despite presenting details about the intervention to various schools in the Western Cape area, numerous complications were met in securing participation in the study. The majority of schools were reluctant to agree to participate in such a training program, mainly due to time constraints. Fortunately, management of one particular school viewed the intervention as an opportunity to expand the content of their personnel development program. Therefore, the management of this previously disadvantaged primary school in the Western Cape, indicated an interest in participating in the research. During this initiation phase, the school's management were informed of the nature and purpose of the training program. Initial contact with the school principal entailed a brief overview of the project, as well as to gather information about the specific needs and context of the school.

Upon receipt of ethical clearance to conduct this research, the researchers proceeded to make contact with the school's management in order to obtain their final commitment to the research project. A lengthy process of negotiation and presentations to the school's management and teachers followed. In this phase, a project proposal was presented to the school principal and staff. The presentation outlined the need and rationale for the research (e.g. brief overview on research evidence pertaining to the relationship between EI and well-being), the project stages, ethical issues, as well as brief information regarding the psychometric testing. The benefits of participation both on an individual level (e.g. an individualised EI profile), as well as on the organisational level (e.g. how increased well-being of teachers could collectively enhance the school culture and 'psychological well-being' of the school) were emphasised. More importantly, the expectations and responsibilities of all the parties involved (the project leaders, facilitators and the respondents) were clarified in order to ensure realistic goals and outcomes.

Because the teachers were required to complete psychometric assessments, aspects related to confidentiality were comprehensively addressed. Management were given the opportunity to voice any concerns or questions after which they were given the opportunity to indicate whether they still wanted to participate in the intervention. Even though participation in this intervention was discretionary for teachers, it was part of the school's mandatory personnel development program. Thus, some employees may have felt that they were given no option for participation,

and was in essence forced to participate in this study. In spite of these challenges, this particular school finally agreed to take part in the EI intervention research.

3.3.4 Participants

The participants in this study (*n* = 31) consisted of teachers from several hierarchical levels (e.g. departmental head, deputy head, teachers) of a primary school in the Western Cape. All personnel at the school were invited to participate in this study. The study had a fall out rate of 9.7%[7]. One of the primary reasons for this is that a large percentage of participants, who terminated their participation, were on the management board of this school. As such, on many occasions they had to attend to unforeseen management duties and could not attend the training sessions. The other participants that did not complete all the training sessions encountered travel arrangement problems (due to the lower socio-economic status of the area within which the school is situated, most of the personnel depends on public transport or lift clubs as daily transport to and from work). Occasionally, some of the participants were required to attend official departmental workshops or meetings arranged at a late notice period.

3.3.5 The intervention

The aim of the intervention was to implement and evaluate an EI training program for primary school teachers. An adapted version of the Swinburne EI Training Program (Gardner, 2005) was utilised for this project. The original program's efficacy was subjected to a comprehensive empirical evaluation (*n* = 79 primary and secondary school teachers), the results of which provided evidence for the success of the program in improving the participant's EI, reducing occupational stress and improving both psychological- and physical well-being (Hansen et al., 2007). Hence, the aim of this study was to replicate this research within the South African context. The main objective of the intervention was to train teachers to understand the stress process, to instruct them on how to manage emotions that arise as a result of the experience of occupational stress, and to provide them with tools to assist them in dealing with the negative consequences of occupational stress. This project addressed the need for innovative solutions to combat organisational ill-health and

[7] The data of participants who terminated their participation were not included in the data analyses.

teacher stress (de Beer et.al, 2007; Engelbrecht et al., 2003; George, Louw & Badenhorst, 2008). The aim was to contribute towards an understanding of teacher stress and EI as well as to provide suggestions on how to reduce the ill-health and stress teachers so often suffer from.

The structure and content of the EI training program was adapted from the work of Gardner (2005). The program incorporated traditional aspects of stress management (such as learning how to identify stressors and how to use relaxation techniques to deal with stressors) with learning how to deal with emotional reactions effectively. It aimed to equip teachers with the necessary skills to deal with the emotions that arise from feelings of stress as well as how to use these skills to prevent health strains, promote more positive feelings of satisfaction, and promote more commitment to the workplace. The program was contextualised, as far as possible, to the South African teaching environment.

The training program consisted of five 2-hour sessions. It was run as group sessions (rather than individual coaching) and consisted of a combination of skills training (group interaction and shared experiences) and the practice of learnt skills (exercises were optional and to be completed outside the training sessions). Four facilitators (i.e. two project coordinators, a social worker and myself) managed the group sessions. This allowed for the division of the bigger group into smaller, more manageable groups (groups consisted of seven to eight individuals per group). The team of facilitators had weekly meetings to discuss each session, as well as to attend to any concerns that surfaced during the previous sessions. Weekly field notes of each session were recorded in order to gain valuable qualitative information.

The Training Sessions

Mayer and Salovey (1997) suggested that EI develops in stages, from basic psychological processes (e.g. Emotional Expression) to more complex psychologically integrated processes (e.g. Emotional Management). This implies that the EI dimensions are related to one another and lower level dimensions (Emotional Expression and Recognition) must be developed before the individual can progress to the next level (Emotional Management and Control). The content of the four dimensions of EI that comprised the training program (i.e. *Emotional Recognition*

and Expression; Understanding Emotions; Emotional Management; and Emotional Control) were developed in a similar order as suggested by Mayer and Salovey (1997).

The first session of the training program presented an overview of the aims and responsibilities of the respondents taking part in the program, followed by an introduction into the cause and consequences of stress in the workplace. The second session introduced EI and began to target the behaviours underpinning the first dimension of EI: *Emotional Recognition and Expression*. The third session focused on the second dimension of EI: *Understanding Emotions*. The fourth session discussed the last two dimensions of EI: *Emotional Management and Emotional Control*. Exercises based on each of the EI dimensions were incorporated into the training program. The exercises targeted empathy, anger and conflict management and their relevance to changing, developing or teaching individuals about their own and others' emotions.

The final session of the training program included a summary of the program and an integration of the concepts of EI and stress. This session also encouraged group feedback and interaction, with the emphasis on developing a plan for participants to move forward with the acquired skills.

Specific learning goals were formulated for each of the sessions. These learning goals were based on the target variable of each session. For example, session one introduced the program as a whole and the main variables of occupational stress and strain. Therefore, the learning goals for this session were: understanding the roles and responsibilities of the trainer and the employees in the program; identifying actual and potential causes of stress in the workplace; identifying and understanding the consequences of stress (relating to health, satisfaction and commitment); and understanding how to assess occupational stress.

In each group session, participants were encouraged to share their own experiences and comment on the experiences of others. A variety of presentation techniques were adopted. These included mini-lectures (e.g. general discussion on stress and EI), group interaction, paired skills training and feedback, and individual training

tasks. In each group session participants were given exercises to take home and complete before the next session. These exercises were optional, but it gave participants the opportunity to practice the skills they have learnt in each session.

3.3.6 Threats to the study's validity

As with any other experimental design, there are several methodological considerations that should be considered when using quantitative research designs. One of these is the possible sources of error that could affect the validity of the experimental design. As previously explained, this study utilised a one-group pre-test-post-test research design. The goal of this type of design is to establish whether there was any significant change in participants' performance after they have been exposed to the program (intervention). To answer this question, a pre-test was administered before the program began. In addition, a post-test was administered after participants' exposure to the program. A post-test is instrumental because it provides a measure of the changes that have occurred during the intervention. However, a drawback of this type of design is that there exists a possibility that another factor, other than the independent variable (the intervention), might have caused a change between the results from the pre-test and the post-test (Babbie & Mouton, 2002; Goldstein, 1993). This is why, when comparing the changes that occurred, it is vital to make use of a control group. This would eliminate the possibility of other reasons for the changes in participants' performance (Goldstein, 1993). Unfortunately, the number of available participants in the school[8] did not permit this study to have a control group. As such, there are several threats to the program's internal and external validity that should be noted.

Internal validity concerns the "extent to which scientific observations and measurements are authentic representations of some reality" (LeCompte & Goetz, 1982, p. 32). Internal invalidity, particularly, is the problem of the possibility that the inferences drawn from the experimental results may not accurately reflect what

[8] It did not make sense to use teachers from another school as a control group. It is well known that each school is a unique entity and operates within a unique environment (specifically in South Africa due to big socio-economic discrepancies, which results in differences in, for example, school organisational culture, access to resources and management style). In addition, none of the schools that declined participation indicated a willingness to give their teachers an opportunity to participate as part of a control group. Not including a control group in this study, is a significant limitation. The results were interpreted in this light.

happened in the experiment itself. Whenever anything other than the experimental stimulus (the intervention) can have an effect on the dependent variable (the pre-test and post-test results), this threat is present (Babbie & Mouton, 2002). Threats to this program's validity include the following:

1. History. This refers to specific events, other than the intervention, that could have occurred during the course of the experiment that will contaminate the results. These events could occur anywhere between the first and the last measurements and as such provide alternative explanations for the results. One such example is that during the week of the first session (when the pre-testing was done), teachers were busy with quarterly assessment of their pupils. As such, they were preoccupied and under a lot of time pressure (this could have affected their perceived stress levels). Furthermore, on the day that the second session was conducted, the school was undergoing a 'whole school evaluation'. Government employees were present at the school on that particular day to evaluate the school, as well as the teachers. Hence, the teachers were very anxious, and lost in thought during this session. All the facilitators reported that they struggled to keep them engaged in the training session (this could have influenced, for example, the effectiveness of the training, which would be resembled in the post test results).
2. Maturation. This include all biological or psychological effects that occur as people continually grow and change systematically vary over time. Such changes may affect the results of an experiment. For example, teachers could have experienced more fatigue and/or had more or less interest in the program between the time of the first measurement through to the last measurement. For example, the facilitators experienced in session one that the teachers were very hesitant and sceptical about the program. However, this scepticism grew into interest and cooperation from session two onwards. Fortunately, despite the specific events which introduced more stressors that they experienced generally (e.g. the 'whole-school evaluation'), the participants still showed a keen interest in the program throughout. It was evident that as soon as they became aware of their need for help (to deal with their stress), they had an open and willing attitude to learn and grow, for the remainder of the program. However, in the absence of control group data, it is not possible to say for sure whether any observed changes was due to this

increased awareness of their lack of EI skills, and exposure to stressors, or whether observed changes was due to actual changes in EI skills developed throughout the program.

3. Testing. The process of testing and retesting often influences individuals' behaviour, thereby influencing the results of the experiment (Babbie & Mouton, 2002; Goldstein, 1993). In essence, this threat refers to the influence that the pre-test have on the scores of the pos-test. As explained earlier, many of the participants felt that they were forced to participate in this intervention (as it formed part of the school's mandatory personnel development program). This, coupled with the stressors that the participants endured at the school (e.g. work overload, scarce resources and the negative culture), made them very reluctant to participate in the training program. This resistance were particularly evident in the pre-program testing session (e.g. very sceptical attitude towards the facilitators that monitored the session). However, during the course of the training, as well as after receiving their EI profiles, their interests in the intervention and the tests increased, and as such they showed more interest in, and paid more attention to, the post-test. Therefore, it seems very probably that the process of testing and retesting possibly threatened the validity of this study's results.

In addition to the internal validity threats discussed above, there may also be problems relating to the generalisability of the experimental findings. External validity refers to the degree to which the authentic representations of scientific measurements and observations could be legitimately compared across groups (LeCompte & Goetz, 1982). As the results of the study must be valid for the examined group before there can be a concern over the validity regarding the generalisability to other groups, internal validity is a prerequisite for external validity. Sources of possible threats to this study's external invalidity include:

1. Reactive effect of pre-testing. Often the effects of pre-tests lead to an increased sensitivity to the program. More specifically, as all the participants were exposed to the pre-test, they might have paid attention to certain material in the training material only because they knew that it is covered in the test items. Furthermore, as the participants received feedback of their EI profiles early in the program, they could have been more sensitised to some

of the EI dimensions in which they received low scores. This could have had an influence on the post-test score.

2. Interaction of selection and experimental treatment. The characteristics of the teachers who participated in the intervention determine the generalisability of the study's findings. In South Africa, there are numerous discrepancies in terms of available resources, infrastructure, socio-economic status and so on that defines the context within which a school operates. These facets limit the generalisability of the results to other schools. As this particular school is influenced by various contextual issues (e.g. lack of sufficient resources and the fact that the school is situated in a low socio-economic area), it is essential that this study should be repeated in other schools in order to establish the replicability of the results.
3. Reactive effects of experimental settings. Procedures that were employed during the intervention could limit the generalisability of the study's results. For example, facilitators could have made the teachers aware of their participation in a study, and this awareness could cause changes in their behaviour that cannot be generalised (Babbie & Mouton, 2002; Goldstein, 1993).

3.4 MEASUREMENT INSTRUMENTS

Seven prominent and well-validated existing questionnaires were utilised to measure the seven constructs (EI, stress, psychological health, physical health, job satisfaction, organisational commitment and work-family conflict). In the following section each measurement instrument will be discussed in detail. The descriptive statistics per instrument for this study are also presented.

3.4.1 The Swinburne University Emotional Intelligence Test (SUEIT)

The Swinburne University Emotional Intelligence Test (SUEIT) was used to evaluate self-reported EI (Palmer & Stough, 2001). The SUEIT was developed to index the way people typically think, feel and act with emotions at work. The SUEIT is scored on a five-point Likert scale ranging from "never" (1) to "always" (5) and takes approximately 15 minutes to complete. It consists of 64 items and provides a total EI score as well as scores on five subscales:

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, staff meetings, literature, artwork, etc.;
3) *Emotions Direct Cognition* – 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.

In the SUEIT's technical manual, Cronbach's Alphas are reported for each factor as follows: Emotional Recognition and Expression: α = 0.73; Understanding Emotions External: α = 0.83; Emotions Direct Cognition: α = 0.63; Emotional Management: α = 0.72; and Emotional Control: α = 0.72[9]. Test-retest stability coefficients over three months range from 0.98 to 0.95 for the EI sub-scales on the SUEIT (Palmer & Stough, 2001).

A recent South African exploratory study investigated the relationship between leader EI and psychological climate. A satisfactory Cronbach Alpha for the SUEIT total score of α = 0.87 was found (Klem & Schlecter, 2008). A different study explored the various relationships between occupational stress, burnout and EI in nurses in South Africa. The objective of this study was to determine whether EI is a moderator in the stress and burnout relationship. EI was measured with the SUEIT, and Cronbach Alphas yielded reasonable results: Emotional Recognition and Expression: α = 0.67; Understanding Emotions External: α = 0.77; Emotions Direct Cognition: α = 0.66; Emotional Management: α = 0.55; and Emotional Control: α = 0.59 (Brand, 2007). Another South African study, conducted with call centre

[9] Due to the small sample size, no Cronbach Alphas were calculated for any of the measurement instruments utilized in this study. This is a limitation of the results. It should be noted, however, that with the exception of the SUEIT (which was developed fairly recently) all the other instruments are very established, well validated measures (e.g. the GHQ-12 and ORQ) with a substantial body of research supporting their validity and reliability.

representatives, explored the various relationships between Emotional Labour, Burnout and EI (n = 210). Cronbach Alphas for each factor were reported as follows: Emotional Recognition and Expression: α = 0.70; Understanding Emotions External: α = 0.79; Emotions Direct Cognition: α = 0.57; Emotional Management: α = 0.61; and Emotional Control: α = 0.57 (Furnell, 2008).

Descriptive statistics for the SUEIT, as obtained in this study, are presented in table 3.1.

Table 3.1
Descriptive statistics for the SUEIT.

	n	**Minimum**	**Maximum**	**Mean**	**Std. Deviation**
Emotional Recognition and Expression	31	22	46	34.55	6.21
Understanding Emotions External	31	55	88	68.16	8.27
Emotions Direct Cognition	31	26	44	34.51	4.08
Emotional Management	31	30	54	37.77	5.07
Emotional Control	31	20	39	27.81	4.62
Total EI Time 1	31	178	265	202.81	18.61
Emotional Recognition and Expression	27	31	45	37.85	4.44
Understanding Emotions External	27	58	83	68.00	7.87
Emotions Direct Cognition	27	26	44	34.93	4.37
Emotional Management	27	24	51	38.96	5.49
Emotional Control	27	24	37	29.33	4.02
Total EI Time 2	27	180	241	209.07	17.57
Emotional Recognition and Expression	27	31	54	37.93	5.25
Understanding Emotions External	27	59	93	69.63	8.59
Emotions Direct Cognition	27	24	50	35.41	4.89
Emotional Management	27	32	55	40.59	5.16
Emotional Control	27	18	39	29.89	5.76
Total EI Time 3	27	181	283	213.44	23.22

3.4.2 The Occupational Roles Questionnaire (ORQ)

The Occupational Roles Questionnaire (ORQ) from the Occupational Stress Inventory – Revised Edition (Osipow, 1998), is a measure of occupational stress and is comprised of several work roles that have been associated with stress. The ORQ is measured on a 5-point Likert scale and takes approximately 15 minutes to complete.

The ORQ consists of 60 questions and is broken up into six subscales, each with 10 items:

1) *Role Overload* – the extent to which job demands exceed resources and the extent to which the individual is able to accomplish workloads;
2) *Role Insufficiency* – the extent to which the individual's training, education, skills and experience are appropriate to job requirements;
3) *Role Ambiguity* – the extent to which priorities, expectations and evaluation criteria are clear to the individual;
4) *Role Boundary* – the extent to which the individual is experiencing conflicting role demands and loyalties in the work setting;
5) *Role Responsibility* – the extent to which the individual has, or feels, a great deal of responsibility for the performance and welfare of others on the job; and
6) *Physical Environment* – the extent to which the individual is exposed to high levels of environmental toxins or extreme physical conditions.

Sound psychometric properties have been reported for the ORQ, with reliability coefficients ranging from 0.70 to 0.89 (Osipow, 1998).

Table 3.2
Descriptive statistics for the ORQ.

	n	Minimum	Maximum	Mean	Std. Deviation
Role Overload	31	19	44	31.65	6.05
Role Insufficiency	31	11	35	22.87	5.70
Role Ambiguity	31	10	36	20.84	7.10
Role Boundary	31	10	31	21.77	5.06
Role Responsibility	31	12	38	25.74	7.21
Physical Environment	31	10	32	21.10	6.10
Total ORQ Time 1	31	100	172	143.97	18.66
Role Overload	26	21	45	32.57	5.85
Role Insufficiency	26	9	31	22.46	5.58
Role Ambiguity	26	12	30	19.54	4.85
Role Boundary	27	10	32	22.37	6.26
Role Responsibility	27	14	42	28.81	8.56
Physical Environment	27	13	45	23.56	8.33
Total ORQ Time 2	27	45	196	146.56	29.90
Role Overload	27	20	41	30.59	6.06
Role Insufficiency	27	11	33	22.44	5.53
Role Ambiguity	27	11	71	20.30	11.35
Role Boundary	27	12	41	21.52	6.84
Role Responsibility	27	15	38	27.41	6.38
Physical Environment	27	10	38	24.15	7.45
Total ORQ Time 3	27	108	243	146.41	27.47

3.4.3 The General Health Questionnaire-12 (GHQ-12)

The General Health Questionnaire-12 (GHQ-12) focuses on psychological components of ill health (Goldberg & Williams, 1988). The instrument focuses on normal functioning, rather than life-long traits, and concerns itself with the inability to continue normal 'healthy' functions as well as the appearance of new phenomena of a distressing nature (Goldberg & Williams, 1988). The GHQ-12 is comprised of 12 items and is a shortened version of the GHQ-60 (which has 60 items). The main difference between the GHQ-60 and the GHQ-12 is that all items pertaining to physical health were removed from the latter, thus the GHQ-12 is a measure of psychological health (or psychological well-being) only. Responses are indicated on a four-point Likert scale providing the frequency with which the respondent has experienced the respective symptom (for example; "have you recently been able to

concentrate on what you're doing?, and "have you lost much sleep over worry?"). The scale takes less than 5 minutes to complete. The test authors report a split half reliability for the GHQ-12 of 0.83 (Goldberg & Williams, 1988).

Descriptive statistics for the GHQ-12 obtained in this study are presented in table 3.3.

Table 3.3
Descriptive statistics for the GHQ-12.

	n	Minimum	Maximum	Mean	Std. Deviation
Total score GHQ Time 1	31	16	47	26.51	8.24
Total score GHQ Time 3	27	12	44	22.77	7.37

3.4.4 Physical Health Symptoms

A list of 11 physical health symptoms shown to be associated with stress taken from Winefield et al., (2002) was included to assess the physical health of employees. Respondents were required to indicate, on a 5-point Likert scale, how often they suffer from the physical health symptom (for example, headaches, muscle pain, skin problems). The reliability coefficient for this scale is unfortunately not reported in Winefield et al., (2002). However, a reliability coefficient of 0.81 was reported for this scale in Gardner (2005).

Table 3.4 contains the descriptive statistics of the Physical Health Scale obtained for this study.

Table 3.4
Descriptive statistics for the Physical Health Scale.

	n	Minimum	Maximum	Mean	Std. Deviation
PH Time 1	30	18	45	31.38	7.74
PH Time 3	27	16	49	28.00	7.34

3.4.5 Job satisfaction

The Job Satisfaction Scale (Warr et al., 1979) assesses various aspects of an individual's job and how satisfied (or dissatisfied) they are with the external and internal features of their job. External Job Satisfaction focuses on aspects external to the position the individual holds, such as pay, security and management, whereas Internal Job Satisfaction focuses on aspects unique to that individual position, such as level of responsibility, chance of promotion, and amount of variety in job. Both External and Internal Job Satisfaction are measured on a 7-point Likert scale. Eight items assess External Job Satisfaction and seven items measure Internal Job Satisfaction, with reliability coefficients reported from 0.74 to 0.85 for these scales (Warr et al., 1979). It is permissible to view the two scales as a measure of a general Job Satisfaction construct.

Descriptive statistics for the Job Satisfaction Scale obtained in this study are presented in table 3.5.

Table 3.5
Descriptive statistics for the Job Satisfaction Scale.

	n	Minimum	Maximum	Mean	Std. Deviation
JS Time 1	26	38	100	67.09	14.28
JS Time 3	26	32	100	70.81	14.32

3.4.6 Organisational commitment

The Organisational Commitment Questionnaire (OCQ; Mowday et al., 1979) is based on three aspects of commitment as defined by the test authors:

1) Strong belief and acceptance of the goals and values of the organisation (e.g. "I find that my values and the organisation's values are very similar");
2) Willingness to exert effort on behalf of the organisation (e.g. "I am willing to put in a great deal of effort beyond that normally expected in order to help this organisation be successful"); and

3) Strong desire to maintain organisational membership (e.g. “I would accept almost any type of job assignment in order to keep working for this organisation”).

The OCQ is measured on a 7-point Likert scale and is comprised of 15 items. A short version of the OCQ is available and is different in that it does not contain reverse scored items. The shorter version of the OCQ was employed in this study. The short OCQ has 9 questions and is scored on the same 7-point Likert scale, taking approximately 5 minutes to complete. The test authors report reliability coefficients for the short version ranging from 0.84 to 0.90 (OCQ; Mowday et al., 1979).

Descriptive statistics for the OCQ obtained in this study are presented in table 3.6.

Table 3.6
Descriptive statistics for the OCQ.

	n	Minimum	Maximum	Mean	Std. Deviation
OC Time1	27	17	63	48.98	12.66
OC Time3	26	27	63	49.95	10.49

3.4.7 Work-family conflict

Work-family conflict was assessed using the 12-item scale (six items to assess work to family life and six items to assess family to work life conflict) developed by Frone and Yardley (1996). This scale was developed by combining two scales used in previous research – the two-item scale developed by Frone, Russel and Cooper (1992) and the four-item scale used by Guteck, Searle and Klepa (1991). This questionnaire assesses the extent to which work interferes with family life (i.e. the amount of time devoted to work and work related demands, for example “After work I come home too tired to do some of the things I’d like to do”), as well as the extent to which family interferes with work life (i.e. the amount of time devoted to family and family related demands, for example “My personal demands are so great that it takes away from my work”). The Work-Family Conflict Questionnaire is measured on a 5-point Likert scale and takes approximately 5 minutes to complete. Frone and Yardley (1996) report a reliability coefficient of 0.87 for work family conflict, and 0.79 for

family work conflict. It is permissible to view the two scales as a composite measure of work-family conflict.

Table 3.7 contains the descriptive statistics for the work family conflict questionnaire obtained in this study.

Table 3.7
Descriptive statistics for the Work-Family Conflict Questionnaire.

	n	Minimum	Maximum	Mean	Std. Deviation
WFC Time 1	29	15	56	33.23	10.43
WFC Time 3	27	15	46	29.42	9.66

3.5 STATISTICAL ANALYSES

The Statistical Package for the Social Sciences (SPSS) (Version 16) was used to perform a range of statistical analyses on the questionnaire data. More specifically, Pearson's Product-Moment Correlations were calculated. A series of Repeated-Measures of Analysis of Variance where the same subjects are measured under different conditions (Bonferroni post-hoc comparisons) were performed in order to establish the difference in pre-program to post-program measurement variance.

Sample size is an important determinant in any research. One of the limitations of this study, was the small pool of available participants (n = 31). Hence it is probable that the data did not have sufficient statistical power to identify a significant effect of the intervention on one or more of the outcomes of stress. As such, it may occur that no significant effects are reported when, in fact, the small sample did not allow the detection of the hypothesised effect (Cohen, Cohen, West & Aiken, 2003). This is a significant limitation of this study.

3.6 CHAPTER SUMMARY

Increasingly, studies are indicating that EI could play a moderating role in the occupational stress process and ultimately the well-being of people. Furthermore, the importance of EI in the teaching environment has been noted in several well-documented articles. This chapter aimed to review the methodology utilised in this

study and state the objectives and hypotheses thereof. Particulars regarding the research design, sample selection, participants, the intervention, threats to the study's validity, measurement instruments, and the statistical analyses were comprehensively discussed. The descriptive statistics obtained in this study was reported for each measurement instrument. The results of the research will be presented in the next chapter.

CHAPTER 4: RESULTS

4.1 INTRODUCTION

The objectives of this study were firstly, to establish whether an EI intervention program was successful in increasing participants' level of EI, decreasing levels of stress experienced, as well as combat the negative outcomes of teacher stress. Secondly, this study aimed to explore the direct relationship EI has with stressors and strains (as a replication of previous research) as well as the role of EI as a moderator in the stress-health relationship. It also explored the relationships between EI and various workplace variables (as outcomes of stress). This chapter will provide an integrated and holistic discussion of the empirical evidence obtained in this research. References to, and comparisons with, the relevant literature and previous research findings will also be presented.

4.2 SAMPLE

Questionnaires and demographic information forms were initially administered to 34 teachers in a primary school located in the Western Cape. Overall, sample retention was high over the course of the training program, with the majority of teachers attending all five training sessions. However, some participants failed to complete parts of the questionnaire, which introduced missing data into the analyses[10]. As mentioned previously, of the 34 teachers who participated in the EI training program, three missed the majority of the sessions (hence the fall-out rate of 9.7%). Their data was not included in the analyses.

The descriptive statistics reflect a mean age (n = 31) of 39 years. The ethnicity distribution reported in table 4.1 consists of the following ethnic groups: 3.2% Black (African), 93.5% Coloured, and 3.2% Indian. According to tables 4.2, 4.3 and 4.4, the largest proportion of the participants were females (90.3%), Afrikaans speaking (61.3%), married (64.5%), and were in possession of a four year teaching diploma. Participants indicated that they were an average of 6.7 days absent from work due to

[10] The most of the missing data was parts of, or full missing data on specific psychometric instruments. It was not deemed a suitable solution to impute missing values for such cases, as that would result in imputing a full case, which could distort the research results.

an illness in the last six months. Descriptive statistics for the sample group are presented in tables 4.1 to 4.4 below.

Table 4.1
Ethnicity distribution

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Black (African)	1	3.20	3.20	3.20
Coloured	29	93.50	93.50	96.80
Indian	1	3.20	3.20	0.00
Total	31	100.00	100.00	100.00

Table 4.2
Gender distribution

	Frequency	Percentage	Valid Percentage	Cumulative Percentage
Male	3	9.70	9.70	9.70
Female	28	90.30	90.30	100.00
Total	31	100.00	100.00	

Table 4.3
Descriptive statistics

	n	Mean	SD
Number of dependents	26	2.04	1.22
Service years	26	7.03	5.28
Days absent due to illness in the past 6 months	28	5.71	7.25
Years teaching	25	20.64	8.28
Working hours	30	9.73	4.40

NOTE: Service years denote how long a participant has been working at this particular school, years teaching refer to how many years a participant have been in the teaching profession, working hours indicate the repeated average number of hours a day a participant works**.**

Table 4.4
Descriptive statistics

Item	Category	*n*	Percentage
First Language	Afrikaans	19	61.30
	English	6	19.40
	Xhosa	1	3.20
	Missing	5	16.10
	Total	31	100.00
Level of education	Two-year teaching diploma	3	9.70
	Three-year teaching diploma	13	41.90
	Four-year teaching diploma	4	12.90
	Bachelor's degree and teaching diploma / certificate	3	9.70
	Honours degree	2	6.50
	Other	1	3.20
	Missing	5	16.10
	Total	31	100.00
Marital status	Single	2	6.50
	Married	20	64.50
	Divorced	3	9.70
	Other	1	3.20
	Missing	5	16.10
	Total	31	100.00
Position at the school	Head	1	3.20
	Deputy head	1	3.20
	Head of department	2	6.50
	Teacher	22	71.00
	Missing	5	16.10
	Total	31	100.00

4.3. RESULTS: EVALUATION OF THE EI TRAINING PROGRAM

This research aimed to explore whether the implementation of an EI intervention (i.e. training program) was instrumental in combating various negative facets of the occupational stress process, experienced by teachers. These include the experience of stressors (i.e. several work roles that have been associated with stress, e.g. Role Overload, Role Insufficiency), strains (i.e. physical- and psychological health), as well as the outcomes of stress (i.e. job satisfaction, organisational commitment and work-family conflict).

Based on the research questions presented in chapter 3, the following hypotheses were formulated in order to evaluate the EI training program:

Hypothesis 1: Emotional intelligence

It is hypothesised that the level of EI will increase following participation in the EI training program.

Hypothesis 2: Occupational stress

It is hypothesised that the perceived level of occupational stress will decrease following participation in the EI training program.

Hypothesis 3: Employee strain

It is hypothesised that psychological- and physical health would improve[11] following participation in the EI training program.

Hypothesis 4: Changes in outcomes of stress

It is hypothesised that the levels of job satisfaction and organisational commitment will increase, and that the level of work-family conflict will decrease, following participation in the EI training program.

Two pre-program questionnaires[12] (times 1 and 2) were administered to the participants. It was expected that the levels of EI and occupational stress would remain stable between these measurements, as the respondents were not exposed to an intervention during this time period. A third measure, the post-program measure were administered immediately after the training took place. An increase in EI, and decrease in occupational stress, was expected between the times 2 and 3 measurements. A series of between group comparisons, by means of one way analysis of variance (ANOVA) with Bonferroni post-hoc comparisons were done to explore the differences between EI and stress levels at measurement times 1, 2 and 3. A specific type of ANOVA, namely repeated-measures analysis of variance which

[11] Lower scores on the GHQ and Physical Health Symptoms Scale, indicate better health.

[12] The first measurement included all the psychometric measures employed in this study. Due to time constraints, however, the second pre-program measure only included the EI and occupational stress measures. The third measure, once again, included all the instruments. It should be noted that this could serve as a limitation to this study, as measurements effects could have played a role.

is used to measure the same subjects under different conditions, were utilised in this study.

Within an ANOVA summary table, an *F*-value and *p*-value is provided. The *F* statistic is a calculated ratio of the 'within-group variance'. Associated with the *F*-value, is a *p*-value, which is compared to alpha (0.05). If the *p*-value is less than alpha (that is < 0.05), then *F* is considered statistically significant, which indicates that the null hypothesis (i.e. the calculated means of the level of EI are the same due to chance at times 1, 2 and 3) is rejected. Thus, a statistical significant *F* indicates that the calculated means in the conditions are significantly different (the calculated mean for EI at times 1, 2, and 3 is not the same). Should the *p*-value equal 0.00 (< 0.0001), it indicates that it is virtually impossible for the difference in the mean scores of EI at times 1, 2, and 3 to be purely the result of a sampling error (Stangor, 2004).

However, a statistical significant *F*-value only indicates whether the level of EI do in fact differ at the three measurement periods, but not which time period is significantly different from each other. Therefore, in the cases where the *F*-test was significant, post hoc multiple comparisons were employed to test the difference between, and among, particular group means. This is where the Bonferroni multiple comparisons procedure was applied: to compare the statistical significance of differences between the level of EI and occupational stress at all three time periods. Should the *p*-value of the level of EI and occupational stress at two time periods being compared, be less than alpha (< 0.05), it indicates that the level of EI on those measurement periods are in fact different.

Changes in the outcomes of stress (i.e. job satisfaction, organisational commitment and work-family conflict levels) as well as strain levels (i.e. psychological and physical health), between the time 1 and 3 measures (i.e. after exposure to the intervention), were investigated with a series of paired sample t-tests. It was expected that work-family conflict, and psychological- and physical health scores would decrease, whilst job satisfaction and organisational commitment score would increase between measurements times 1 and 3.

4.3.1 Results: total EI

Table 4.6 contains the means and standard deviations of total EI as measured at the three occasions. Figure 4.1 visually indicates the change in applicants' EI at the three measurement points in time.

The results revealed an unexpected change in participants' EI from measurement times 1 to 2. This change was not significant (see table 4.5, $p > 0.05$). Although an increase was evident in the total EI score from times 2 to 3, this change was also not significant (see table 4.5, $p > 0.05$). This contradicted the expected results. However, the change in EI levels between times 1 and 3 was significant ($p < 0.05$). Unfortunately, the available participant pool for this study did not allow for an inclusion of a control group. Control group data would have provided quantitative information on whether the increase in EI levels can be accounted for by factors other than the intervention (Babbie & Mouton, 2002). It would also have shed light on the inconsistency of the results (i.e. increase from time 1 to time 2). This is a major limitation of this study which will be discussed comprehensively in the next chapter. It could be argued, however, that the initial presentation[13] of the EI training program to the school may have stimulated the teachers' interest in, and awareness of, the concepts of EI and stress. As a result, they were more aware of the stress they were experiencing, as well as their emotions (and the regulation thereof) surrounding their workplace, colleagues, superiors, and jobs. This may have been a reason for the increased EI scores between the time 1 and 2 measurements. It may also have influenced the time 2 to 3 change that was observed (although non-significant).

Although the pattern of results did not provide conclusive evidence that the EI training intervention caused a change in the participant's EI levels, the increased EI levels at time 3, is a notable result. As can be seen from table 4.5 and figure 4.1, there is a significant difference between the means of EI at times 1 and 3 $F(2, 52) = 5.0$, and $p < 0.05$. F is statistically significant ($p < 0.05$). The results of the Bonferoni test analysis confirmed that the level of EI is significantly different at time 3

[13] Due to the challenges related to gaining access to a suitable participant pool for this research (described in section 4.2) the subjects were, unfortunately, sensitized regarding their EI and stress levels (as they had to attend the informative presentation prior to the commencement of the program). This is another limitation of the current results, that in future research will be avoided at all costs.

compared to time 1 ($p < 0.05$). It is therefore evident that a significant increase in total EI did take place. Hence, partial support for hypothesis 1 emerged. That the components of, as well as participation in the EI training program, were responsible for this increase is not entirely justifiable from the current results. EI is known to increase over time (e.g. with age, Brackett et al., 2005; Watkin, 2000). The magnitude of the change observed here, in a relatively short period of time, however, may provide some weak evidence to suggest that increasing a person's EI through a development intervention, may be possible to some extent.

Therefore, it would seem that the EI training program may have perhaps shown some effect in increasing the teachers' level of EI. Although limited by the design of the study (i.e. lack of a control group), the results seem to provide further (although weak) empirical support for the notion that emotional responses and behaviours can be learned, developed (Fletcher et al., 2009; Nelis et al., 2009) and controlled by employees (as shown in other studies, e.g. Dulewicz & Higgs, 2004; Fletcher et al., 2009; Gardner, 2005; Nelis et al., 2009; Slaski & Cartwright, 2002). Gardner (2005) found that the teachers' EI skills continued to develop after the training program concluded (Gardner, 2005). Nelis et al. (2009) corroborates the effectiveness of EI training programs in terms of continued development, as the results obtained in their study indicated that the changes in EI remained six months after concluding their program. Unfortunately, due to time constraints and logistical challenges, a second post-measurement could not be conducted in this study. This constraint will also be addressed in future research of this nature.

Table 4.5
Bonferroni results of the ANOVA results for EI.

Time	**1**	**2**	**3**
	202.81	209.07	213.44
1	-	0.07	0.00
2	0.07	-	0.22
3	0.00	0.22	-

Table 4.6
Descriptive statistics of the ANOVA results for EI.

	Mean	Std. Deviation	*n*
Total EI Time1	202.81	18.61	31
Total EI Time 2	209.07	17.57	27
Total EI Time 3	213.44	23.22	27

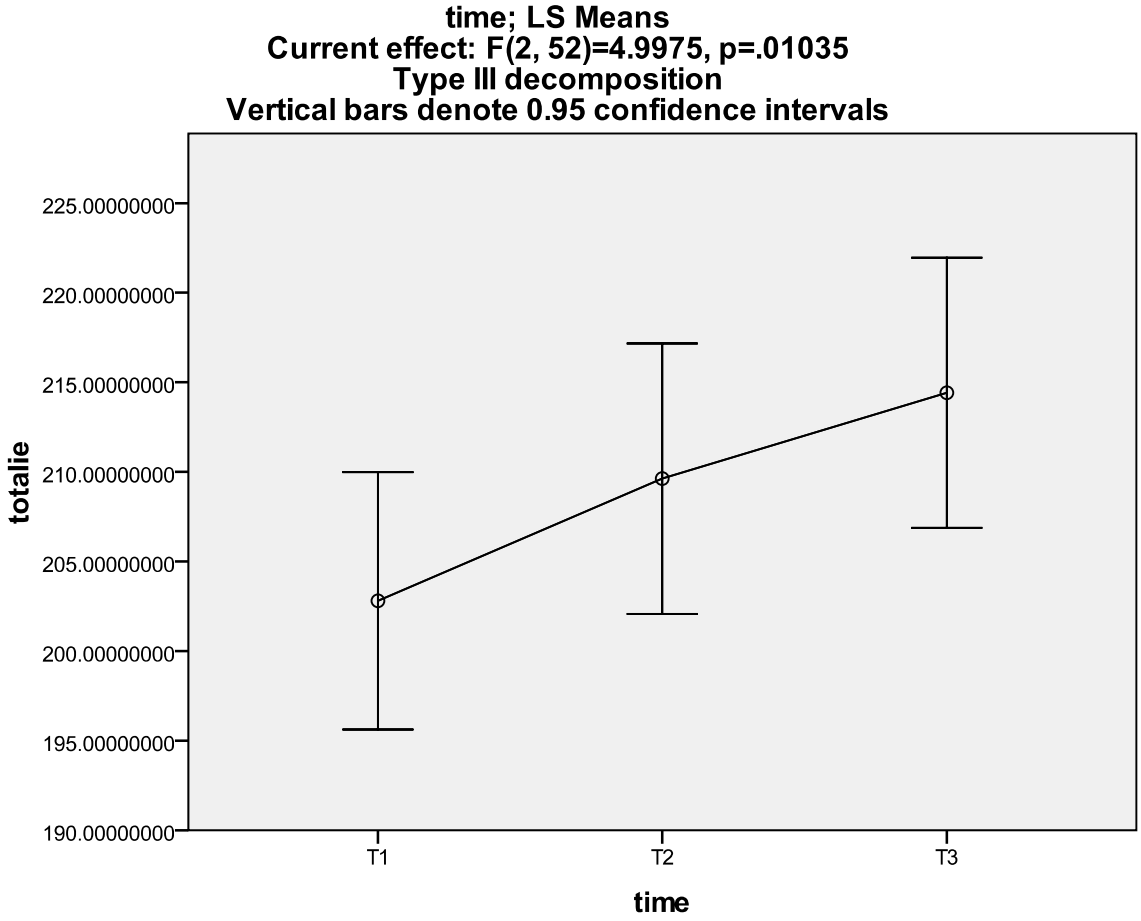

Figure 4.1
EI as measured at times 1, 2, and 3.

4.3.2 Results: total occupational stress

It was hypothesised that the teachers' perceived level of occupational stress would decrease following participation in the EI training program. The descriptive statistics of the ANOVA results for occupational stress are presented in table 4.8. Unfortunately, the results did not provide support for hypothesis 2. As can be seen

from table 4.7 and figure 4.2, the difference between the means of occupational stress at measurement times 1 and 2 was non-significant ($p > 0.05$). There was a slight increase in the mean for this time period. The change from time 2 to 3 (although extremely small, but in the expected direction) was also non-significant ($p > 0.05$). Hypothesis two is not supported by these results. These results stand in contrast to Gardner's (2005) findings. She found that the EI training program was successful in reducing the teachers' feelings of occupational stress. Previous research supports the notion of a relationship between EI and stress. For example, various researchers have found that individuals with higher levels of EI experience less stress (e.g. Slaski & Cartwright, 2002). Research has also proven that EI serves a buffering role against stress (e.g. Brand, 2007; Landa et al., 2007). However, given the inconclusive evidence of the program to increase participant's EI levels, it is not entirely unexpected that occupational stress levels did not decrease significantly. However, more research is needed to strengthen the belief that emotionally intelligent individuals are able to cope more adaptively once they experience stress (Matthews, Zeidner & Roberts, 2002).

Despite the fact that the EI training program was not successful in decreasing teachers' levels of stress, it is believed that it still benefit them. The reason for this is that the teachers were trained to recognize and understand stress triggers and responses (session one of the program), as well as taught how to deal with the emotions arising from these experiences. Analyses of the qualitative field notes revealed that the participants felt confident that the training increased their awareness of stress. In addition, they felt that after commencing with the EI training program, they found it easier to distinguish between sources of stress, and have acquired the ability to manage and control negative emotions, as well as stress-evoking situations more effectively. In addition, they also felt that they were more equipped to manage and control negative emotions in others (e.g. parents and colleagues). A second post-measurement may have provided more evidence of change in stress levels, as the application of the learnt skills may have a lag time, before lasting effects in behavioural changes are noted. Gardner (2005) for example, found that occupational stress continued to decrease from the post-program to the follow-up time point (five weeks post program). Therefore, despite the current results, the EI training could have increased the participants' resilience towards

stress (Slaski & Cartwright, 2002), as resilience is a said to be a consequence of emotional competence (Saarni, 2000).

Table 4.7
Bonferroni results of the ANOVA results for occupational stress.

Time	**1**	**2**	**3**
	143.97	146.56	146.41
1	-	0.75	0.82
2	0.75	-	0.93
3	0.82	0.93	-

Table 4.8
Descriptive statistics of the ANOVA results for occupational stress.

	Mean	**Std. Deviation**	***n***
Total Occupational Stress T1	143.97	18.66	31
Total Occupational Stress T2	146.56	29.90	27
Total Occupational Stress T3	146.41	27.47	27

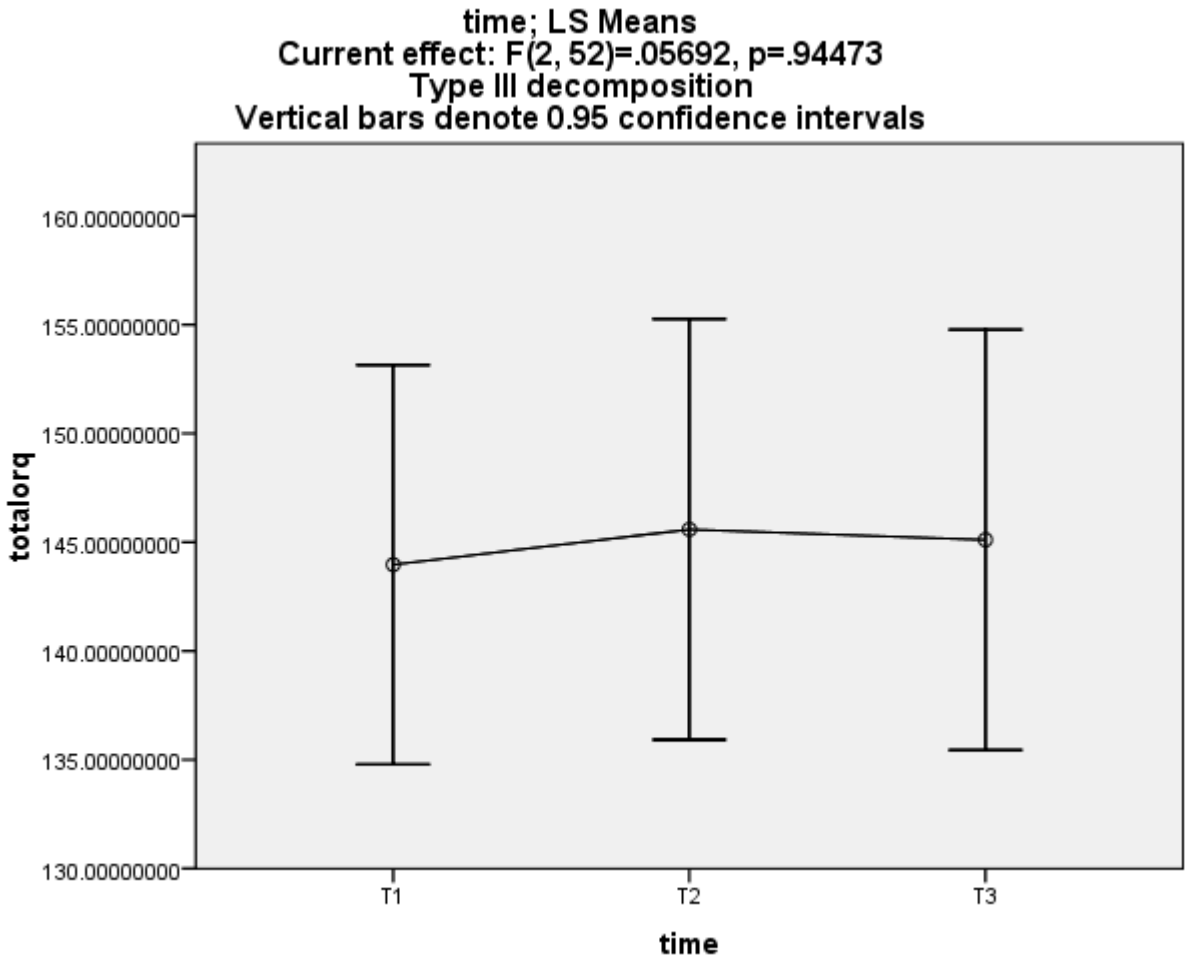

Figure 4.2

Occupational stress as measured at times 1, 2, and 3.

4.3.3 Results: psychological health and physical health

Changes in employee strain was assessed to evaluate whether the EI training program was successful reducing strain (specifically psychological- and physical health). Psychological health refers to the psychological components of ill health (employee strain) whereas physical health refers to the physical components of employee strain (the physical symptoms experienced as a result of increased stress). It was hypothesised that psychological- and physical health would improve[14] following participation in the EI training program.

[14] Higher scores on the GHQ-12 indicates that a person have poorer general psychological health. Similarly, a higher score on the Physical Health Scale means that an individual experiences poorer physical health. Lower scores on both these measures would, therefore, indicate better psychological and physical health.

The results of the paired-samples t-test for physical health showed a statistically significant decrease in total physical health scores from time 1 (M = 31.38, SD = 7.74) to time 3 (M = 28.00, SD = 7.34), $t(25) = 2.72$, $p < 0.05$). The eta squared statistic (0.22) was calculated. The following guidelines to interpret eta squared values were used: 0.01 = small effect; 0.06 = moderate effect; 0.14 = large effect (Cohen, 1988). Hence, a large effect size was observed here. This means that there was a relatively large difference in the physical health scores obtained at the time 1 and time 3 measurements.

Similar to the physical health results, the results of the paired-samples t-test for psychological health (GHQ scores) showed a statistically significant decrease in GHQ scores from time 1 (M=26.51, SD=8.24) to time 3 (M=22.77, SD=7.37), $t(26)=2.10$, $p<0.05$. An eta squared value of 0.14 was calculated, which means that a large effect in relation to Cohen's guidelines (1988), were observed. The total GHQ mean scores decreased from time 1 to time 3, which indicate better psychological health. The physical and psychological health results reported here, therefore, provide support for hypothesis 3.

The stress educational component of the EI training program incorporated information regarding the consequences of stress in terms of health and well-being. By participating in this training program, teachers were shown how stress adversely affects their mental and physical health. They were also provided with exercises to assist them in managing their health more effectively (for example progressive relaxation techniques). These aspects may have contributed to the decrease in perceived employee strain. It is important to interpret the results in combination with this study's limitations. More specifically, this study could not include a control group. As such, the inference cannot be made that the results presented (i.e. better physical and psychological health) are due to the EI intervention alone.

The program provided an opportunity and platform to share emotional experiences. This, coupled with learning how to manage negative emotions more effectively, could have resulted in teachers appraising their psychological state more positively, which could have resulted in the decreased feelings of psychological ill-health. As previously mentioned, a second post-measurement should have been conducted

several months after this program was concluded, in order to strengthen the results. In the research conducted by Slaski and Cartwright (2003), they reported a significant decrease in psychological strain six months after the completion of the EI training program. However, they did not include a data collection measurement immediately after their training program, which this study did. As this study did not conduct a second follow-up measure, the current findings cannot be completely compared to their findings. Notwithstanding, this study's findings corroborates those of Slaski and Cartwright's study (2003), where the participants in the EI training program showed a decrease in strain, with specific reference to an increase in their reported physical health.

4.3.4 Results: job satisfaction, organisational commitment and work-family conflict

The interrelationships between job satisfaction, organisational commitment, work-family conflict and ultimately EI, have been researched in several documented studies. For example, Gardner (2005) found that employees who reported using EI dimensions in the workplace, also report increased positive feelings with some aspects of their job (job satisfaction). Furthermore, various researchers postulate that employees who have higher levels of EI are more likely to be more committed to their organisations and have higher levels of job satisfaction (Güleryüz et al., 2008; Kafetsios & Zampetakis, 2008; Sy et al., 2006; Wong & Law, 2002). In a study by Nikolaou and Tsaousis (2002), it was reported that employees who scored higher on EI also scored higher in organisational commitment. The authors argued that the reason for this could be due to the fact that employees who feel more valued and less distressed in their positions, have increased feelings of commitment and loyalty both from, and towards their organisations (Nikolaou & Tsaousis, 2002). Given the positive research on the benefits of a high level of EI, this study hypothesised that by developing the teachers' EI, their level of job satisfaction and organisational commitment will increase, while their level of work-family conflict should decrease.

A series of paired t-tests were conducted to investigate changes in the outcomes of stress from before to after the intervention. There was no statistically significant change in organisational commitment scores form time 1 (M = 48.98, SD = 12.66) to time 3 (M = 49.95, SD = 10.49), $t(22) = -0.59$, $p > 0.05$. Similarly, the results for the

job satisfaction analysis revealed no statistically significant increase in job satisfaction scores from time 1 (M = 67.09, SD = 14.28) to time 3 (M = 70.81, SD = 14.32), $t(21) = -1.47$, $p > 0.05$. However, the results of the paired samples t-test for work-family conflict revealed a statistically significant decrease in work-family conflict scores form time 1 (M = 33.23, SD = 10.43) to time 3 (M = 29.42, SD = 9.66), $t(25) = 2.11$, $p < 0.05$. The eta squared statistic (0.15) indicated a large effect size, based on the Cohen (1988) guidelines. Hence, only partial support for hypothesis 4 emerged. Gardner (2005) reported significant mean score changes for job satisfaction and work-family conflict, but no effects were reported for organisational commitment. This study's results partially replicate Gardner's (2005) findings, in that a significant change for work-family conflict and a non-significant change in organisational commitment, was observed. However, the job satisfaction result in this study does not corroborate Gardner's (2005) results.

Overall, the findings of this study suggest that the EI training program did not have the desired effect in increasing teachers' levels of satisfaction and organisational commitment. Although there was a significant decrease in work-family conflict scores, the results should once again, be interpreted against the limitation of control group data for this study.

4.3.5 Results: the relationship between EI, occupational stress and strain

A second aim of this study was to seek replication of previous research results, regarding the relationships between the three main constructs: EI (as measured by the SUEIT; Palmer & Stough, 2001), occupational stress (as measured by the ORQ; Osipow, 1998), and strain (as measured by the GHQ-12 and the Physical Health Symptoms Scale; Goldberg & Williams, 1988; and Winefield et al., 2002, respectively). As such, three broad objectives were formulated to investigate these relationships.

The relationships between the abovementioned variables were investigated through the calculation of the Pearson product-moment coefficients. For every analysis a bootstrapping procedure was performed. Bootstrapping is the process of estimating properties of an estimator (e.g. its variance) by measuring those properties when sampling from an approximation distribution. In addition, Spearman correlations were

also calculated. The results of these analyses in no cases differed significantly from the Pearson correlations, and hence only the latter correlation results are reported.

Results: Objective 1: Exploration of the relationship between emotional intelligence and occupational stressors before, during and after the EI intervention program

Is total EI, as measured by the SUIET at T1, T2 and T3 (Palmer & Stough, 2001) related to stressors (Role Overload, Role Insufficiency, Role Ambiguity, Role Boundary, and Role Responsibility) as measured by the ORQ (Osipow, 1998)?

Table 4.9 presents the study's findings in terms of the relationships between EI and occupational stress.

Table 4.9
Pearson correlations between EI and occupational stress.

Measure	TOTAL EI					
	n	T1	*n*	T2	*n*	T3
Total Occupational Stress	31	-0.27	27	-0.27	27	-0.42*
Role Overload	31	-0.21	26	-0.03	27	-0.21
Role Insufficiency	31	-0.34*	26	-0.53**	27	-0.55**
Role Ambiguity	31	-0.44**	26	-0.64**	27	-0.39*
Role Boundary	31	-0.13	27	-0.56**	27	-0.50**
Role Responsibility	31	0.25	27	0.24	27	0.20

**** Correlation is significant at the 0.01 level (one tailed)**
***Correlation is significant at the 0.05 level (one tailed).**

No significant relationships emerged between Role Overload, Role Responsibility and EI as measured at times 1, 2 and 3. A possible reason for the lack of association between Role Overload (i.e. the extent to which job demands exceed resources, and the extent to which the individual is able to accomplish workloads, Osipow, 1998) and EI, could be explained by the nature of the Role Overload construct, and how it relates to the context in which the school is operating. The teachers indicated that their primary stressor at this particular school is work overload. With the introduction of the learner-centred or cooperative teaching methods, enforced by the new curriculum in South Africa (Robinson, 1999), teachers are experiencing a much

higher level of workload than before (Department of Education, 2005). Furthermore, as a result of the low socio-economic status of the area where the school is located, the teachers' class sizes are extremely large. This results in added workload as well. Hence, it may be reasoned that external factors (e.g. the provision of more resources, teachers and hence smaller classes) and not internal factors (i.e. having EI skills, or increasing these) may be more prominent factors in addressing Role Overload for these teachers.

Role Responsibility, on the other hand, refers to the extent to which the individual has, or feels, a great deal of responsibility for the performance and welfare of others on the job (Osipow, 1998). There was no association between EI and Role Responsibility in this study. The non-relationship between Role Responsibility and EI could be explained by noting that the items in the Role Responsibility scale refer to colleagues, and not necessarily to pupils. In other words, it measures the extent to which the individual has, or feels, a great deal of responsibility for the performance and welfare of their colleagues on the job (Osipow, 1998). Teachers probably experience the majority of their interactions, in a normal workday, with pupils and not their colleagues. Hence, the feeling of responsibility for the performance and welfare of their pupils could be overriding such similar considerations for colleagues. In addition, given the challenges the teachers in this school face (i.e. work overload, large classes) it is fairly probable that they could already be suffering from burnout (Chan, 2006), and therefore do not have the emotional energy to support, and take responsibility for colleagues' welfare. Chan (2006), for example found that teachers that could be suffering from burnout feel drained, did not value their own achievement, and expressed negative attitudes in responding to students. This study's finding corroborates Gardner's (2005) results. Accordingly, she found significant relationships between EI and occupational stress on all, but the Role Overload and Role Responsibility dimensions.

Moderate relationships between Role Insufficiency and EI at times 1, 2 and 3 emerged ($r = -0.34$, $p < 0.05$; $r = -0.53$, $p < 0.01$, $r = -0.56$, $p < 0.01$ respectively, $n = 31$). This result suggests that individuals, who report higher levels of EI, would most likely report lower levels of Role Insufficiency. In other words, individuals who reported higher levels of EI feel that their training, education, skills and experience

are appropriate to their job requirements (Osipow, 1998). One explanation for this could be that teachers, who felt that they have high EI, also perceive themselves as having a higher level of self-efficacy (Salovey, Woolery & Mayer, as cited in Matthews et al., 2002) to perform under the specific circumstances at the school. For example, they may have felt that they are more equipped to manage the increased workload as a result of the learner-centred or cooperative teaching methods, enforced by the new curriculum (Robinson, 1999). Furthermore, they may have felt that they are better able to manage the multiple and complex roles that teachers are expected to fulfil (Chisholm et.al, 2005), when they became aware of their EI skills. It should be noted that the relationship strengthened from measurement time 1 to time 3. A possible explanation for this finding could be that the EI intervention caused the participants to be more aware of their EI skills and the development thereof. Therefore, they could have reported feeling more skilled and capable in terms of their job requirements once they became aware of their EI skills. Similarly, Role Ambiguity and EI showed significant moderate, negative relationships (r = -0.44, p < 0.01; r = -0.64, p < 0.01, r = -0.39, p < 0.05 respectively, n = 31). This suggests that respondents, who reported higher EI, would most likely report lower levels of Role Ambiguity. Differently stated, respondents who reported higher EI, generally experience more clarity on their priorities, expectations and evaluation criteria (Osipow, 1998). A possible explanation for this may be that EI allows a person to communicate their emotions more effectively (verbally and non-verbally). Keltner and Haidt (as cited in Shanwal & Kaur, 2008), for example propose that emotional abilities are important for social interaction, as emotions serve as a form of communication where important information about one's thoughts and intentions are expressed. It is probable, therefore, that teachers with higher EI consulted more effectively, and regularly, with colleagues and their superiors in the school about topics such as evaluation criteria and priorities. This could have caused their Role Ambiguity to be lower, as opposed to individuals with lower EI. Moderate negative relationships between EI and Role Boundary at measurement times 2 and 3 emerged (r = -0.56, p < 0.01, and r = -0.50, p < 0.01 respectively, n = 31). This indicates that respondents, who reported higher levels of EI, would most likely report less Role Boundary stress. In other words, respondents with higher EI, experience less conflicting role demands and loyalties in the work setting (Osipow, 1998). This finding suggests that teachers who are able to recognise, express, control and

manage emotions are more likely to feel proud of what they do, and are less likely to feel caught between conflicting supervisory (i.e. head of department, deputy head) demands (Gardner, 2005). Another possible explanation for this relationship could be that EI helps individuals to better cope with their circumstances. Individuals with higher EI have a stronger sense of self-esteem and self-efficacy and know what is expected of them in terms of their role (Salovey, Woolery & Mayer, as cited in Matthews at al., 2002). Furthermore, they might believe that they are better capable of balancing work demands and loyalties without compromising one of them.

Lastly, a moderate, significant negative relationship emerged between total occupational stress and total EI at measurement time 3 (r = -0.42, p < 0.05, n = 31). This result indicates that individuals, who reported higher levels of EI, also reported less occupational stress, once the intervention concluded (at time 3 measure). Overall, the findings suggest that individuals who are able to effectively recognise, understand, manage and control emotions in the workplace will be better able to manage emotional reactions to workplace stressors (linked to different work roles), than those who are less able to utilise the respective facets of EI.

Results: Objective 2: Exploration of the relationship between emotional intelligence and strain before and after the EI intervention program

A. Explore whether the EI dimensions as measured by the SUIET at T1 and T3 (Palmer & Stough, 2001) are related to psychological health at T1 and T3 (as measured by the GHQ-12 (Goldberg & Williams, 1988).

B. Explore whether the EI dimensions as measured by the SUIET at T1 and T3 (Palmer & Stough, 2001) are related to physical health at T1 and T3 (as measured by the Physical Health scale, Winefield et.al, 2002).

Table 4.10
Pearson correlations between EI and strain (as measured by physical health and psychological health)

Measure	Psychological Health		Physical Health	
	T1	T3	T1	T3
Emotional Recognition and Expression	-0.24	-0.51**	-0.38*	-0.34*
Understanding Other's Emotions	0.20	-0.56**	0.10	-0.20
Emotions Direct Cognition	0.08	-0.16	0.19	0.60
Emotional Management	-0.36*	-0.70**	-0.28	-0.50**
Emotional Control	-0.57**	-0.49**	-0.62**	-0.43*
Total EI	-0.21	-0.63**	-0.30	-0.36*
n	31	27	30	27

**** Correlation is significant at the 0.01 level (one tailed)**
***Correlation is significant at the 0.05 level (one tailed).**

Table 4.10 shows the correlations between the five EI dimensions and the two measures of employee health, namely physical- and psychological health. It is important to note that a negative relationship between EI and physical- and psychological health was expected[15].

The results of this study indicate that Emotional Recognition and Expression, Emotional Management and Emotional Control showed significant moderate to strong relationships with both measures of employee health (at both measurement times). More specifically, the relationship between psychological health and Emotional Recognition and Expression strengthened from a non-significant relationship at measurement time 1 to a significantly negative relationship at time 3 ($r = -0.51$, $p < 0.01$). A possible explanation is that this specific aspect of the EI training program (session two focused on Emotional Recognition and Expression) was successful in increasing participants' awareness of how their emotions could affect their psychological health. For example, a heightened awareness of emotions and emotional experiences could help to assist emotional regulation strategies, often

[15] Higher scores on the GHQ-12 indicates that a person have poorer general psychological health. Similarly, a higher score on the Physical Health Scale means that the individual experiences poorer physical health. Therefore, one would expect a positive correlation between physical health and psychological health, as poor physical health is known to be related to poor psychological health. In addition, it makes sense to expect a negative correlation between EI and physical / psychological health (i.e. as EI increases, health improves).

needed in a classroom environment (e.g. lack of discipline). Appropriate expression could also assist in attaining better psychological health as this would increase coping resources when the individual is able to judge better when to express which emotions (e.g. frustration or anger about lack of discipline to a colleague, and not a learner). In terms of the relationship between physical health and Emotional Recognition and Expression, a significant moderate, negative association emerged at measurement times 1 and 3. This relationship weakened somewhat from T1 to T3 (r = -0.38, n = 30; r = -0.34, n = 27; respectively, $p < 0.05$).

A significant strong, negative relationship emerged between Understanding Other's Emotions and psychological health at measurement time 3 (r = -0.56, $p < 0.01$, n = 27). However, no significant relationships between Understanding Other's Emotions and physical health emerged. The concept of Understanding Other's Emotions refers to the ability to identify and understand the emotions of others and those that manifest in response to workplace environments. In other words, it entails the ability to recognise, label and interpret the emotions of other people (Palmer & Stough, 2001). Therefore, it could be argued that this ability may increase and individual's capacity to deal with the emotional side of conflict and obstacles in the workplace, by being able to empathise with colleagues or learners. This, in turn, will benefit their psychological well-being (by increasing coping resilience in difficult situations), although, according to these results, it will not have a significant effect on their physical health.

The results, furthermore, revealed that no relationships between Emotions Direct Cognition and either measure of health were evident. This branch of EI refers to the extent to which emotions and emotional knowledge are incorporated in decision making and/or problem solving (Palmer & Stough, 2001). These results, however, corroborate those of Gardner (2005), who also found no relationships between Emotions Direct Cognition and either measure of health.

A significant negative relationship emerged between Emotional Management and psychological health at both measurement times, with a strengthened relationship at time 3 (r = -0.36, $p < 0.05$, n = 31; r = -0.70, $p < 0.01$, n = 27, respectively). As mentioned previously, the EI training program aimed to teach the participants to be

more aware of their emotions. A spinoff of such an increased awareness is that individuals more easily become aware of their increased capability in the management of their own, as well as others', emotions (positive and negative emotions). Due to the emotional management strategies and skills that the participants were taught in the program, it is probable that they acquired the skills to influence their own, as well as others' (i.e. colleagues and pupils) emotions more effectively. Training session four aimed to teach teachers to experience more positive emotions at the workplace. It was highlighted that the ability to manage emotions can affect the way one thinks, behave and how others perceive you. As teachers interact daily with pupils, colleagues and often with parents, the session taught them that by managing your own emotions, they will be more able to manage the emotions of colleagues and pupils (e.g. effectively manage a distraught parent / a frustrated pupil). The results revealed that the relationship between Emotional Management and physical health differed significantly at the time 1 and 3 measurements. More specifically, it changed from a non-significant, to a significant, moderate negative correlation ($r = -0.50$, $p < 0.01$, $n = 27$). A possible explanation for this could be that as the participants acquired the skill to manage their own emotions, as well as the negative emotions of others, they felt that they are also able to manage their own reaction to those emotions. As a result, their perceived psychological health improved. This, in turn, might have led to an improvement in their physical health.

The results revealed a moderate to strong negative relationships between Emotional Control and psychological health at both measurement times ($r = -0.57$, $p < 0.01$, $n = 31$; $r = -0.49$, $p < 0.01$, $n = 27$, respectively). Similarly, significant moderate to strong relationships between Emotional Control and physical health emerged at both measurement times ($r = -0.62$, $p < 0.05$, $n = 31$; $r = -0.43$, $p < 0.05$, $n = 27$, respectively). On a daily basis, teachers are faced with situations that elicit strong emotional reactions. For example, they have to deal with undisciplined children, demanding parents, heavy workloads, and lack of resources. Consistent strong emotions that are not recognised, managed and controlled, could lead to physical and psychological manifestations. Examples of such manifestations include emotional exhaustion, frustration, anger and depression. For this reason, the ability to control emotions effectively could be beneficial for teachers' physical health.

Overall, the pattern of these results (EI and health) corresponds strongly to those of Gardner's (2005) study. For example, she also reported significant moderate relationships between Emotional Management and Emotional Control with both measures of employee health; as well as significant, though weak, relationships between Emotional Recognition and Expression and Understanding Emotions with both measures of employee health. Lastly, Gardner (2005) also reported no relationship between Emotions Direct Cognition and either measure of health.

Lastly, the results revealed that no association was found between total EI and psychological health at time 1. However, this relationship strengthened to a strong, negative relationship (r = -0.63, p < 0.01, n = 27) at time 3. In other words, respondents who reported having the ability to recognise, understand, manage and control emotions in the workplace (after completion of the EI intervention) also reported less psychological ill-health symptoms (such as feeling inferior to others, fearful or anxious, and sad or depressed). In addition, a similar trend was noted for EI and physical health. A non-significant correlation was noted at the time 1 measurement of these variables. However, at the time 3 measurement, evidence for a moderate negative significant relationship between total EI and physical health emerged (r = -0.36, p < 0.05, n = 27). Hence, employees who reported being able to recognise, manage and control their emotions more effectively (after completing the EI program), also reported less physical ill-health symptoms (such as gastrointestinal problems, headaches and sleeping difficulties). These findings are corroborated by other studies. For example, longitudinal studies (e.g. Ciarrochi & Scott, 2006) have indicated that low levels of emotional competence precede decreased well-being. Collectively, these results suggest that higher scores on EI are related to a lower prevalence of ill health. The findings from these analyses corroborate those of other scholars who also found significant relationships between EI and health (e. g. Oginska-Bulik, 2005; Schutte et al., 2007; Slaski & Cartwright, 2002; Tsausis & Nikolaou, 2005). Overall, the findings from this study provide further evidence to suggest that employees who are able to manage their emotional experiences and express their emotions effectively, generally tend not to be predisposed to suffer, due to emotional suppression, from ill health problems (e.g. feeling sad or depressed, anxiety, headaches and sleeping difficulties).

Results: Objective 3: Explore the role of emotional intelligence as a moderator in the stressor-strain relationship

A. To investigate whether there is a relationship between stressors (ORQ total score, Osipow, 1998) and psychological health (as measured by the GHQ-12, Goldberg & Williams, 1988) at T1 and T3.

B. To investigate whether there is a relationship between stressors (ORQ total score, Osipow, 1998) and physical health (as measured by the Physical Health scale, Winefield et.al, 2002) at T1 and T3.

C. If relationships exists for Objectives A and B, to explore whether total EI (Palmer & Stough, 2001) moderated those relationships.

Table 4.11
Correlations between total occupational stress, physical health and psychological health

Measure	Total Occupational Stress	
	Time 1	Time 3
Physical Health	0.34*	0.71**
Psychological Health	0.40*	0.69**

**** Correlation is significant at the 0.01 level (one tailed)**
***Correlation is significant at the 0.05 level (one tailed).**

As previously mentioned, higher scores on the Physical Health Scale as well as on the GHQ-12, indicate poorer levels of physical- and psychological health. In addition, higher scores on the ORQ, indicate that an individual experiences more occupational stress. For this reason, positive correlations were expected between psychological and physical health with occupational stress, respectively.

As can be seen from table 4.11, the Pearson correlations revealed that total occupational stress showed a significant positive relationship with physical health at both times of measurement. This relationship strengthened considerably from time 1 to time 3 (r = 0.34, p < 0.05, n = 31; r = 0.71, p < 0.01, n = 27, respectively). Similarly, significant moderate to large, positive relationships between total occupational stress and psychological health emerged. Once again, this relationship strengthened from time 1 to time 3 (r = 0.40, n = 31, p < 0.05; r = 0.69, n = 27, p < 0.01, respectively). These results imply that individuals, who reported higher levels of

occupational stress, also reported lower levels of physical and psychological health (i.e. higher scores on the GHQ-12 and Physical Health Scale). This corroborates the notion that feelings of occupational stress are often accompanied by feelings of poor psychological- and physical health (e.g. Ciarrochi et al., 2002; Ciarrochi & Scott, 2006; Gardner, 2005)

The hypothesis of EI as a moderator in the stressor-strain relationship was initially suggested by Slaski and Cartwright (2002), and empirically examined by other scholars. Ciarrochi et al. (2002), for example, found that EI is a moderator in the relationship between stress and other measures of psychological health such as depression, hopelessness, and suicidal proneness. However, Gardner (2005), whose research serves as a foundation for this study, reported that EI does not moderate the relationship between stressors and strains. She suggested that EI only has a direct effect on stressors and strains, and does not change the relationship between these variables (Gardner 2005). In order to explore whether EI moderates the relationship between stressors and health strains, multiple regression analyses were performed on the time 3 data of this study.

To explore the role of EI as a moderator in the stressor-strain relationship, moderated multiple regressions were conducted. Should the impact of one independent variable (stress) depend on the value of another independent variable (EI), an interactional effect will exist (Lewis-Beck, 1980). A dichotomous variable, named EILowHigh was computed with the median as reference point in order to perform the regression analyses. The specific type of regression employed to measure the interaction effect, involves forming a multiplicative term, in this case multiplying stress with the new dichotomous variable (EILowHigh), creating a new variable called EILowHighStress. In the regression analyses, strain (i.e. physical- and psychological health) were entered as respective dependent variables and stress (as measured by the ORQ, Osipow, 1998), EILowHighStress (EI as moderator) and EILowHigh were entered as independent variables.

The results revealed that evidence emerged to support the notion that EI moderates the relationship between stress and psychological health. The results from this regression indicate that the model was significant ($p < 0.05$) and that it explained

60.4% (adjusted R square) of the variance in psychological health. The standardised coefficients presented in tables 4.12 and 4.13 indicate that EILowHighStress (= -0.87, $p = 0.03$), and total stress (= 1.46, $p = 0.00$) made significant contributions to explaining the variance in psychological health ($p < 0.05$). The impact of the EI interaction (EILowHighStress) is more evident in the scatterplot presented in figure 4.3. It is clear that the slope of the lines differ after entering the EI Interaction effect.

Table 4.12
Model Summary: Interaction effect of EI on the stress, psychological health relationship.

Model	Multiple R	Multiple R square	Adjusted R square	Std Error of the Estimate	F	Sig.
1	0.81[a]	0.65	0.60	4.64	14.21	0.00

a. Predictors: (Constant), EILowHighStresS, EILowHigh, total stress.

b. Dependent Variable: psychological health

Table 4.13

Coefficients: Interaction effect of EI on the stress, psychological health relationship.

	Standardized Coefficients		
	Beta	T	Sig.
1 (Constant)		0.68	0.51
Total Stress	1.46	3.66	0.00
EILowHigh	0.12	0.51	0.62
EILowHighStress	-0.87	-2.39	0.03

a. Dependent Variable: psychological health

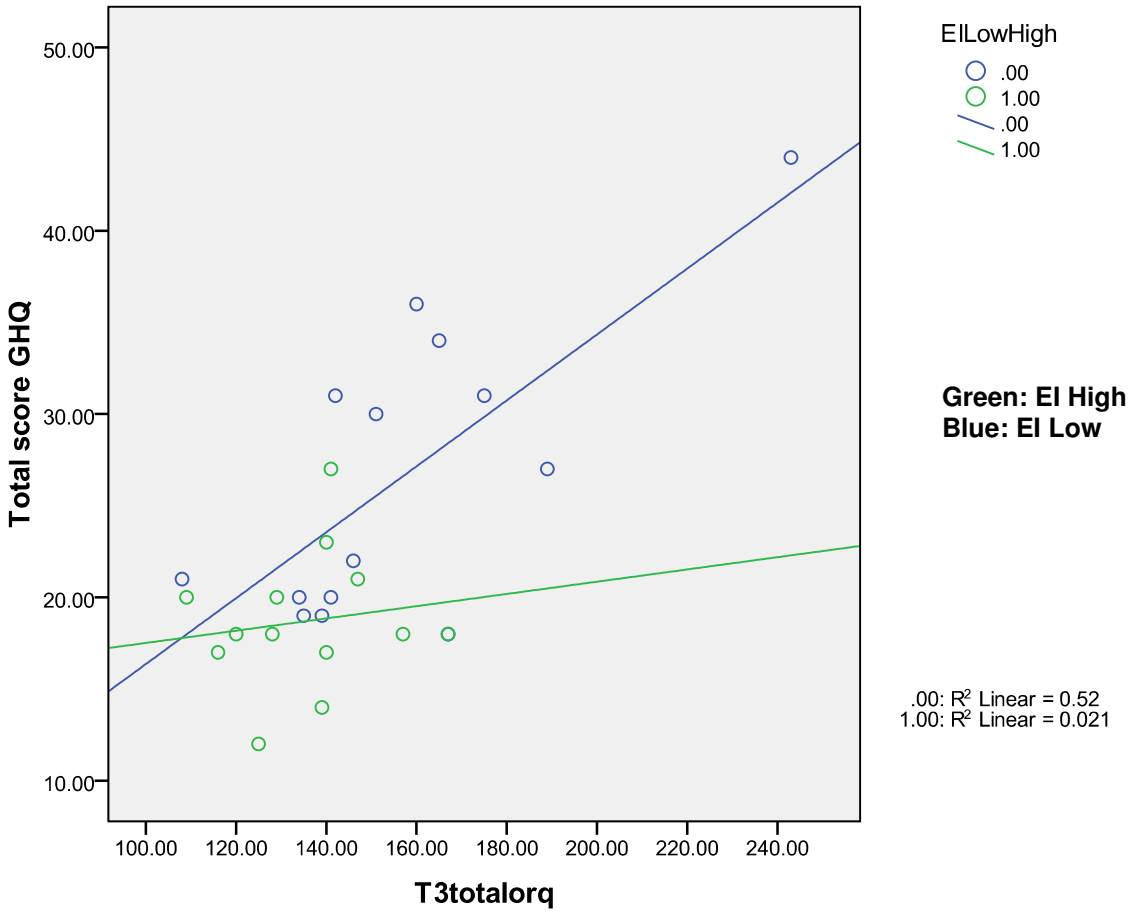

Figure 4.3

EI as a moderator in the stress, psychological health relationship.

In terms of physical health, the regression results indicated that the model was significant ($p < 0.00$) and that it explained 45.9% of the variance in physical health. However, results showed that EI did not have a moderating role in the stress, physical health relationship. Tables 4.14 and 4.15 show that the interaction effect EILowHighStress (= -0.39, $p = 0.37$), did not emerge as a significant predictor in this model. Total stress (= 1.12, $p = 0.03$) was the only significant predictor in this model ($p > 0.05$), accounting for all the variance being explained in physical health. The interaction effect of EI, presented in figure 4.4, was not significant.

Table 4.14
Model Summary: Interaction effect of EI on the stress, physical health relationship.

Model	Multiple R	Multiple R square	Adjusted R square	Std Error of the Estimate	F	Sig.
1	0.72[a]	0.52	0.46	5.37	8.34	0.00

a. Predictors: (Constant), EILowHighStress, EILowHigh, total stress.

b. Dependent Variable: physical health

Table 4.15

Coefficients: Interaction effect of EI on the stress, physical health relationship.

	Standardized Coefficients		
	Beta	**T**	**Sig.**
1 (Constant)		0.50	0.96
Total Stress	1.12	2.40	0.03
EILowHigh	0.21	0.79	0.44
EILowHighStress	-0.39	-0.91	0.37

a. Dependent Variable: physical health

Stressors create stress perceptions, which could lead to a person perceiving the stressor as negative or positive. This cognitive appraisal could, in turn, lead to psychological and physical outcomes (i.e. strain). Lazarus and Folkman (1984) noted that stress and strain will only occur if the individual perceive the situation as negative or stressful. Emotionally intelligent people are said to be able to cope with the stressors more effectively (Bar-On, 1997) through more positive appraisals, as well as the ability to regulate and express their emotions in reaction to stress, more appropriately (Gardner & Stough, 2003; Slaski & Cartwright, 2002). As a result, such individuals will enjoy better physical and psychological health (Brand, 2007; Gardner, 2005; Landa et al., 2007). This study's findings suggest that the relationship between stressors and physical health is independent of EI, and that employees who regularly experience stress may also experience ill health (particularly manifested in physical symptoms), regardless of their level of EI. However, the results showed that EI serves a buffering role when it comes to exposure to stressors and related psychological health, providing a replication of the results of Ciarrochi et al., (2002).

In other words, an individual with higher levels of EI will be more able to manage and control their perceptions of, and reactions to, stressors (psychologically) (Ciarrochi et al., 2002; Day et al., 2005; Tsaousis & Nikolaou, 2005). EI plays a direct role in this relationship, which is indicative thereof that it influences the way an individual appraises the stressor as well as manage the feelings of ill health, experienced as a result of the stressor (Slaski & Cartwright, 2002). For example, teachers are faced with various stressors (such as lack of discipline, heavy workloads and large class sizes) on a daily basis. With higher levels of EI, teachers will be able to manage their perceptions, and reactions to these stressors. This, in turn, could result in a decrease of negative psychological reactions (such as depression and anxiety).

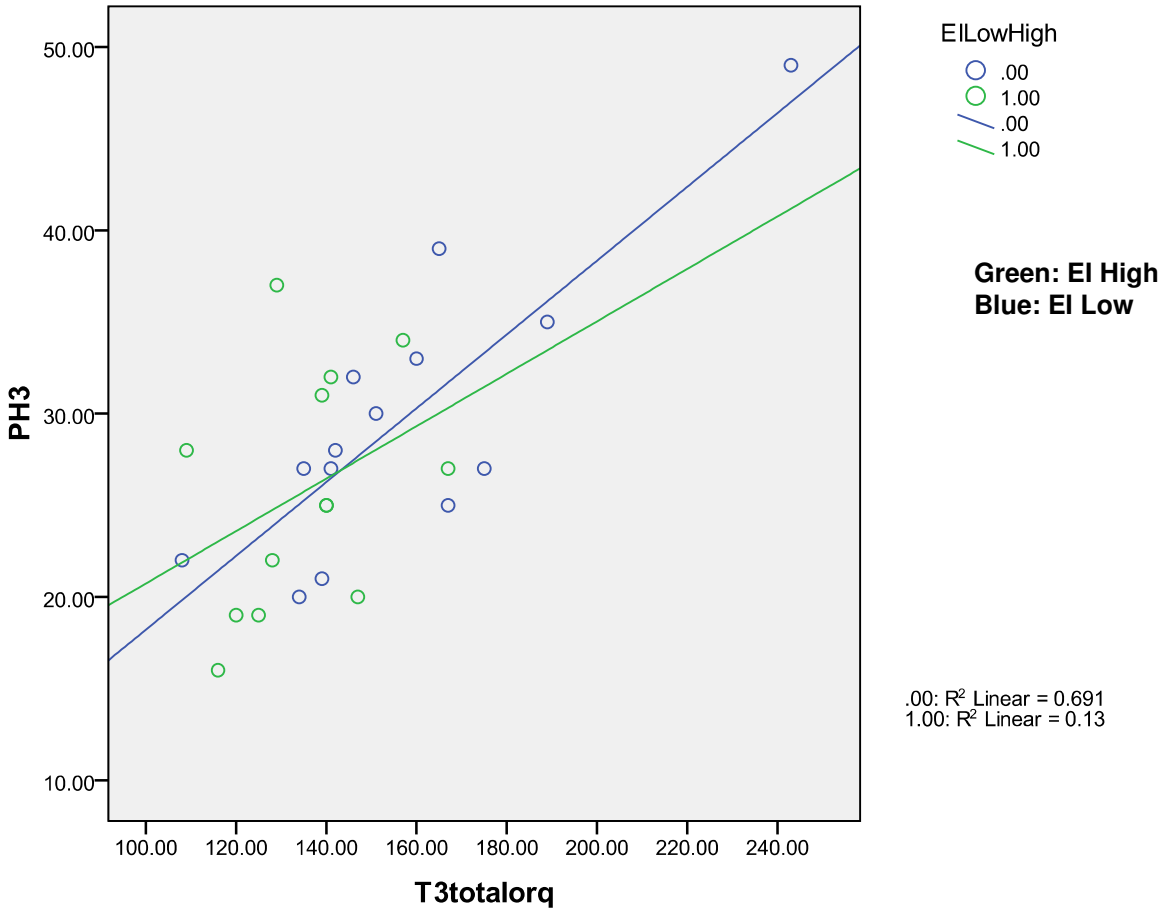

Figure 4.4

EI as a moderator in the stress, physical health relationship.

4.3.6 Results: the relationship between EI and workplace variables

In this section the results of the proposed hypotheses in terms of the relationship between EI and workplace variables (namely job satisfaction, organisational commitment, and work-family conflict) are presented. In chapter 3, the following hypotheses were presented:

Hypothesis 5

It is hypothesised that there will be a significant positive relationship between EI and job satisfaction. That is, higher levels of EI will be associated with higher levels of job satisfaction.

Hypothesis 6

It is hypothesised that there will be a significant positive relationship between EI and organisational commitment. That is, higher levels of EI will be associated with higher levels of organisational commitment.

Hypothesis 7

It is hypothesised that there will be a significant negative relationship between EI and work-family conflict. That is, higher levels of EI will be associated with lower levels of work-family conflict.

The relationships between EI and the three workplace variables were investigated by calculating the Pearson correlation coefficients[16] with the time 3 measurement data. The results are presented in table 4.16.

[16] In addition, Spearman correlations, as well as Bootstrapping procedures were also performed for every analysis. The results of the analyses in no cases differed significantly from the Pearson correlations and hence only the latter correlations were reported.

Table 4.16
Correlations between total EI and workplace variables (i.e. job satisfaction, organisational commitment and work-family conflict).

Measure	Total EI	
	n	T3
Total Job Satisfaction	26	0.58**
Total Organisational Commitment	26	0.16
Total Work-Family Conflict	27	-0.34*

**** Correlation is significant at the 0.01 level (one tailed)**
***Correlation is significant at the 0.05 level (one tailed).**

4.3.6.1 Results: job satisfaction

Job satisfaction was found to have a strong significant positive relationship with EI, (r = 0.57, p < 0.01, n = 26). This result implies that respondents, who reported higher levels of EI, generally also reported higher levels of job satisfaction. This is similar to findings reported by Sy et al., (2006) and Wong and Law (2002). It would seem that emotionally intelligent individuals are more aware of how their emotions can influence their behaviours and work outcomes, and hence are more skillful at using their emotions to facilitate job satisfaction (Sy et al., 2006). This finding corroborates Gardner's (2005) finding of a weak significant relationship between total EI and job satisfaction. Hypothesis 5 was therefore supported.

4.3.6.2 Results: organisational commitment

The results revealed that a non-significant relationship between EI and organisational commitment emerged. Gardner (2005) reported a weak significant relationship between EI and organisational commitment (r = 0.15, p < 0.01 n = 317). Her results are, therefore, not confirmed in this study. Nikolaou and Tsaousis (2002) argued that employees who readily use emotions in the workplace should have a stronger sense of emotional attachment to their workplace and the people in their workplace. This sense of attachment could make them feel a strong sense of loyalty and commitment to the organisation. More research on this relationship is needed to confirm this notion. Hypothesis 6 is not supported by the current results.

4.3.6.3 Results: work-family conflict

The results provide evidence to suggest that a weak significant negative relationship between work-family conflict and EI (r = -0.34, p < 0.05, n = 27) exist. This indicates that those respondents who reported higher levels of EI would most likely report levels of work-family conflict. This is similar to findings reported by Carmeli (2003). Surprisingly, this result contradicts those of Gardner (2005). Accordingly, she found no significant relationship between EI and work-family conflict. However, hypothesis 7 is supported by this result.

4.3.7 Results: qualitative field notes

The results in this chapter, were somewhat inconsistent and did not always provide support for the proposed hypotheses, derived from Gardner's (2005) results. For example, the pattern of increase in mean EI scores did not provide sufficient evidence to suggest that the intervention was the main contributor in this change. In addition, no significant changes in occupational stress were evident from the results. To shed more light on the results, the qualitative field notes that were recorded by each small group facilitator after each training session, were reviewed. This section aims to provide an overview of this information. The emphasis is on providing more clarity on the context within which the school operates, as well as prevalent themes (e.g. typical stressors the teachers experience, the organisational climate in the school) that emerged from all the field notes, which could help to better explain the results.

In terms of context specific stressors, the qualitative data provided important insight into the nature and prevalence of the specific stressors the teachers experience on a daily basis. Factors such as the limited resources and large class sizes, for example, are related to the socio-economic status of the community surrounding the school. The school is situated in a low income community, from a previously disadvantaged ethnicity group in South Africa. The community faces many social and economic problems (e.g. high unemployment and poverty, high crime rate, substance abuse). The school does not function in isolation from the community. Hence teachers often reported having to see to the emotional (e.g. counselling, discipline) and physical needs (e.g. providing food) of the learners, as those needs are frequently not met in the family environment. These factors (e.g. multiple roles of the teacher), however,

are not assessed in the occupational stress measure (ORQ) that was employed in this study[17]. Hence, it may be that the nature of the stress measure did not really tap into the most important stressors the teachers face on a daily basis, which may have changed as a result of exposure to the EI intervention. The South African taxonomy of teacher stressors specified by Engelbrecht et al., (2003) should be used in future studies, to guide the selection of a more appropriate stress measurement instrument. For example, aspects of the following four categories of stressors, specific to the teaching profession should be assessed (Engelbrecht et al., 2003): (a) difficulties with learners (motivation and control of learners, poor learner attitudes and learner rebellion); (b) time pressure; (c) poor ethos due to poor staff relations (conflict and ineffective communication); and (d) poor working conditions (heavy work load, large classes, additional administrative responsibilities, lack of support and encouragement, financial constraints, and lack of educational supplies).

A prominent theme that emerged from the field notes were that the teachers experienced a disproportionately high degree of workload. This undue pressure manifests in high levels of stress. High levels of workload are associated with continuous changes in the structure and content of the school's curriculum, enforced by the government's Educational Department, as well as excessive amount of administration, required by the new curriculum (as part of teacher's role). The National Curriculum Framework introduced in 1998 is based on the concept of Outcomes-Based Education (Department of Education, 2005). This new curriculum requires a different type of educator – educators that are trained in new skills and are capable of fulfilling diverse educational roles. As a result, there seems to be a lack of educators with adequate training in outcomes-based education and in the new school curriculum. For this reason, one of the unfortunate effects of the outcomes-based education is an increased workload (Department of Education, 2005). Administrative duties are especially a huge concern, due to the fact that the classes are overpopulated and when it comes to evaluations, the teachers feel that they have more work, than time available for them to do it.

[17] This measure was utilised as the current study was a replication of the Gardner (2005) study. Future research of this nature in South Africa will aim to use a more context specific stress measure.

One of the four categories that stressors in the teaching profession can be grouped into, as proposed by Engelbrecht et al. (2003), entails difficulties with learners (motivation and control of learners, poor learner attitudes and learner rebellion). Therefore, as expected, the lack of discipline from the learners serves as another significant stress factor, in this school. Some teachers noted that due to the lack of resources at this school, the children have limited opportunities to constructively exert their energy (such as sufficient play grounds, sport opportunities, and access to a library). The teachers expressed considerable frustration at the lack of undisciplined behaviour from learners. One of the contributing factors to the lack of discipline is that they feel they have no effective method of reprimanding the children. Since the establishment of a human rights culture in the 1990's, the foundation for the ending of corporal punishment was laid. However, no effective and alternative was offered. Confused, over-worked and under-qualified teachers are said to be unlikely to voluntarily give up using corporal punishment when they consider it as their only means of maintaining discipline in the classroom (Morell, 2001). A possible reason why teachers continue to resort to corporal punishment is that they feel helpless in the face of school violence (Morell, 2001), which seems to be increasing each year (Vally, Dolombisa & Porteus, 1999). Other researchers note that violence could be the result of persistent use of corporal punishment in schools (Zulu, Urbani, van der Merwe & van der Walt, 2004). However, since pupils know that corporal punishment have been banned from schools, teachers felt that the learners take advantage of this. Typically, when pupils are scolded, they react by threatening the teachers with their parents. Hence, demanding parents is another significant stressor for the teachers. The general consensus was that, in general, parents consistently insist on immediate attention and responses from them. In addition, most parents seem to be more concerned with the administrative aspects in the school (reflected in the nature of their complaints), rather than the physical learning that takes place in the classes.

Another worrisome stress factor in this school was the negative and destructive organisational ethos that seemed to prevail in the school. This negative organisational culture emerged as a clear theme in the facilitators' field notes. It was also evident in explicit and implicit behaviour from the participants throughout the training sessions. For example, during the training sessions, teachers openly

discussed the negative distrustful culture of the school and the various stressors they encounter, as a result of this culture. This was also reflected in the fact that some of the participants felt reluctant and hesitant to openly participate in the discussion groups. One participant admitted that they were afraid to participate in the discussions, as “someone could be listening over the intercom”. This statement clearly reflects the culture of distrust found in the school. It was also clear that the distrust was mostly directed towards the members of the school’s management team. In one group, the teachers were very reluctant to fully participate in the sessions because a member of the school’s management was present. However, as soon as he left, the atmosphere changed and they openly discussed their frustrations and qualms. The teachers noted that management are cold when it comes to personal relationships and that they are expected to hide their emotions at work. Furthermore, the teachers felt that they received limited recognition for personal problems. For example, one participant had a miscarriage a few years ago, and testified that she gets very emotional every year, on that particular day. She felt that members of the management team, especially the principal, shows no sympathy / empathy with her and discards the strong emotions that she experiences on that particular day. She felt that she receives no emotional support, and to some extent, no instrumental support from the school’s management team. The negative organisational culture is worrisome in the sense that it could affect the pupils, as research has shown that teachers affect is an important determinant of student learning outcomes (Rowe, as cited in Hart, Wearing, Conn, Carter & Dingle, 2000).

Coupling this general disrespectful organisational culture, another theme that emerged was that most teachers nothed that a predominantly parent-child management style is being enforced at the school. This, furthermore, results in a lack of respect between members of the management team and the teachers. This type of management is often referred to as an ‘engaged climate’, characterised by ineffectual attempts by the principal to exercise and maintain control. In an engaged climate, the principal is directive (Ahghar, 2008), rigid and autocratic. A result of this leadership style is a display of disrespect regarding the professional competence or the personal need of the teachers. It also manifests in a clear lack of support. Such principles typically do not give direction, nor pay attention to teachers’ ideas and suggestions, and hence are very restrictive in their management style (Ahghar,

2008; Pretorius & de Villiers, 2009). From the qualitative field notes, it was clear that the teachers associated negative experiences at work, to a large degree, with the autocratic leadership style of the principal (and the immediate management team). A result of this leadership style is possible sabotage directed at the school. For example, one participant noted that he was forced to work on a public holiday until 21:00 that night. As a result, he decided to "take the next day off without notifying management". The negative experiences that teachers have at work seem to have a spill-over effect to personal lives. According to the spillover hypothesis, employees' attitude and experiences in one sphere (e.g. work) will have a positive or negative (as in this case) correlation with their experiences and attitudes in the other sphere (e.g. personal lives). This negative spill over effect is known as work-family conflict (Brough et al., 2005; Hammer et al., 2004; Rantanen et al., 2008). For example, the teachers noted that they find it extremely difficult to separate their personal lives from their work. Negative work related experiences are internalised, which affects their quality of family life. One participant noted that "I get up in the morning with a good mood, but when I enter the school grounds, I switch of my car, my radio, my emotions and my life". From the qualitative data, it would seem that the morale of teachers is very low, and there was an overall feeling of hopelessness prevailing under them. Unfortunately, it would seem that the unconstructive culture at this school negatively affects their level of organisational citizenship behaviour: when employees go beyond their call of duty without expecting compensation or rewards (Gibson, Ivancevich, Donnely & Konopaske, 2006). Moreover, their level of job satisfaction are negatively impacted, as Rowe (as cited in Pretorius & de Villiers, 2009) remarks that teachers' perceptions, and experience of, their principal's trust and confidence in their capabilities as teachers are important for job satisfaction. From the field notes it would seem that teachers experience low levels of trust and confidence from their principal in their capabilities as teachers (hence, they experience a parent-child management style). This could, in turn, negatively affect their levels of job satisfaction.

Fortunately, despite the negative culture among the staff in this school, it was evident that the teachers display 'intimate teacher behaviour', characterised by cohesive and strong networks of social support among the teachers (Aghar, 2008; Pretorius & de Villiers, 2009). They know each other well. They seemed to have

close personal relationships with each other and support each other loyally. This relationship among colleagues could possibly affect their levels of commitment to the school. In other words, due to the close personal relationships formed in the school, the teachers remain with the school because they want to (affective commitment) as they experience an emotional attachment to their colleagues (Lee et al., 2001, p. 597).

4.4 SUMMARY

The purpose of this chapter was to report the research results obtained from the seven measurement instruments. Within this chapter, the analyses of the data was discussed in terms of the specific research objectives formulated within each of the research goals as specified in the preceding chapters. The reported results were discussed with specific reference to relevant literature. In the following chapter the limitations of this study will be noted, and recommendations for future research will be proposed.

CHAPTER 5: CONCLUSION

5.1 DISCUSSION

The notion that EI could have a positive influence on both the organisational and individual domain has been supported by various studies. Some of these beneficial influences include better physical, mental and psychosomatic health (Gardner, 2005; Schutte, Malouff, Thorsteinsson, Bhullar & Rooke, 2007), a contribution to career success (Barling, Slater & Kelloway, 2000), and decreased levels of occupational stress experienced by employees (Gardner, 2005; Gohm, Corser & Dalsky, 2005; Matthews et al. 2006; Oginska-Bulik, 2005; Saklofske, Austin, Galloway & Davidson, 2007). Increasingly, organisations are recognising the advantages of a workforce with high levels of EI. As such, a trend is noticeable - EI developmental programs are gradually being introduced into the workplace (e.g. Chan, 2006; Kaufhold & Johnson, 2005; Parker et al., 2004; Zeidner et al., 2002). Preliminary evidence (e.g. Gardner, 2005; Hansen, Gardner & Stough, 2007; Slaski & Cartwright, 2003) suggests that such programs appear to be effective in reducing occupational stress and improving health, well-being and performance. It should be noted that high levels of EI will not necessarily eliminate feelings of occupational stress, as stressors are often external to the individual and usually beyond the individual's control. However, EI may assist individuals to deal with the occupational stress more effectively, preventing them from suffering the unpleasant health consequences that arise from occupational stress. In addition, as a result of increasing one's emotional competence (Saarni, 2000), EI can increase an individual's resilience towards stress (Slaski & Cartwright, 2002).

The teaching profession is notorious for being a particularly stressful occupation. Some researchers even suggest that teachers experience disproportionately high levels of stress in comparison with other occupations (e.g. Burke & Greenglass, 1996). Typically, some of the characteristics of teachers' stress include lack of professional recognition, discipline problems in the classroom, bureaucracy, lack of support, workload, time pressure, the amount of paperwork required, large class sizes, fear of violence, lack of classroom control, role ambiguity, limited professional opportunities, and lack of available resources (Kokkinos, 2007; Montgomery & Rupp, 2005; Petty, 2007). Unfortunately, high levels of stress in teachers are related to

poor health, lower job satisfaction, higher rates of absenteeism, and an increased desire to leave the profession (Galloway, Panckhurst, Boswell, Boswell & Green, 1984; Mearns & Chain, 2003; Montgomery & Rupp, 2005; Sheffield, Dobbie & Carrol, 1994; Travers & Cooper, 1993).

This study implemented and evaluated an EI intervention / developmental program with primary school teachers in South Africa. The research explored whether the intervention (i.e. training program) was instrumental in combating various negative facets of the occupational stress process experienced by teachers. These include the experience of stressors (i.e. several work roles that have been associated with stress, e.g. Role Overload, Role Insufficiency), strains (i.e. physical and psychological health), as well as the outcomes of stress (i.e. job satisfaction, organisational commitment and work-family conflict). The objectives of this study were to firstly, establish whether the EI intervention program was successful in increasing participants' levels of EI, decreasing levels of stress experienced, as well as combat the negative outcomes of teacher stress. Secondly, this study aimed to explore the direct relationship EI has with stressors and strains (as a replication of previous research) as well as the role of EI as a moderator in the stress-health relationship. It also explored the relationships between EI and various workplace variables (as outcomes of stress).

5.1.1 Evaluation of the EI training program

Emotional intelligence

It was hypothesised that levels of EI will increase, following participation in the program. The results obtained in the evaluation of the training program supported this hypothesis partially. A non-significant increase in EI between times 1 and 2, was evident. As discussed in chapter 4, a possible explanation for this increase could be that participants were more aware of their EI, after the initial introductory session. This awareness may have caused the increase in self-reported EI, in this time period. A non-significant increase from measurement times 2 to 3, was also evident. Although the pattern of increase (non-significant) in EI scores (i.e. a slightly bigger increase was evident in the 'no intervention' period, compared to the 'intervention' period) did not provide conclusive support for the effectiveness of the program, a

notable result was obtained in that there was a significant difference between the time 1 and 3 EI scores. Therefore, it is not entirely erroneous to deduce that the EI training program may have perhaps shown some effect in increasing teachers' level of EI. This conclusion, however, in the absence of control group data (section 5.2 elaborates on the effects of this) is only weakly substantiated by the current data. The results of this study may, at this stage, only be interpreted as weak preliminary evidence for the utility of such a program focused on teacher well-being in the educational sector in South Africa. Nevertheless, other research has shown that emotional responses and behaviours can be learned, developed and controlled by employees. For example, Slaski and Cartwright (2002) showed that an EI development program was successful in significantly improving EI. A more recent study by Fletcher et al. (2009) indicated that developmental training could increase third year medical students' EI (with a significant difference between the control and intervention group). Hence, this study should be repeated with a larger sample. It is, furthermore, essential to include a control group in a follow-up study. Moreover, a second post-program measurement should also be conducted. This would indicate whether the increase in EI is sustainable after concluding the program. In the study by Nelis et al. (2009), for example, evidence emerged that the training group had significantly higher scores on EI after the program ended. Similarly, Gardner (2005) found that the changes the teachers made in terms of increasing their levels of EI continued over the follow-up period. By changing the design of the follow-up research in these ways, more conclusive evidence will be provided to substantiate the results. In conclusion, it is perhaps premature to infer that the EI training program presented in this study was solely responsible for the increase in teachers' levels of EI, given the methodological flaws of the study. More research in the teaching context in South Africa should be conducted, before programs like this one is rolled out with the aim of increasing teacher well-being. It may well be that by first addressing more prevalent stressors as was uncovered through this study, in this particular school (e.g. organisational culture issues as described in section 4.3.7) more lasting success will be achieved in terms of improving employee well-being (than limited effects gained by only increasing individual coping resilience through development programs such as this one).

Occupational stress

In this study it was hypothesised that the level of occupational stress will decrease following participation in the EI program. Unfortunately, the results did not support this hypothesis. The results revealed that the difference in total occupation stress between measurement times 1 and 3 was non- significant. Kagan et al. (1995) and Lindquist and Cooper (1999) indicated that stress-management programs which included physiological exercises, lifestyle educational components, employee management exercises and self-understanding exercises are effective in reducing occupational stress in employees. The components of the training program utilised in this study were drawn from previously evaluated effective stress management programs (such as the incorporation of stress reducing relaxation techniques). However, given the limited success of this program in increasing teachers' EI, the consequent limited decrease in occupational stress was not entirely unexpected. The relationship between stress and EI has been researched in several studies. Overall, results from these studies strongly support the notion that individuals with higher levels of EI experience less stress, and enjoy better levels of health and well-being (e.g. Dulewicz et al., 2003; Slaski & Cartwright, 2002). Furthermore, empirical evidence has proven that EI servers a buffering role in the stress process (e.g. Brand, 2007; Ciarrochi, 2002; Gardner, 2005; Landa et al., 2007). It is therefore a disappointing finding that the intervention was not effective in reducing the teachers' level of perceived occupational stress. However, as mentioned previously, one of the limitations of this study was the lack of a second post-measurement. It may be that the results of the training program, with regards to decreased levels of stress, only manifested a few weeks after the program was concluded. Gardner (2005) for example, found that the EI training program she utilised (which served as a foundation of this study's training program), was successful in reducing occupational stress both immediately after the program had been concluded, and at the follow-up time point (5 weeks later). When attempting to decrease stress experienced by employees, it is important to note that stress in organisations have been conceptualised as a dynamic interaction between the person and environment (Lazarus & Folkman, 1984). It is therefore important to take contextual factors into account when interpreting the findings. In chapter 4 certain contextual factors (specific to the unique school environment) was highlighted which seem to contribute very strongly to the teachers' perceived stress. It was argued that the occupational

stress measure, utilised in this study, perhaps did not successfully assess the most important stressors the teachers face on a daily basis. This could also be an alternative explanation for the current results.

Employee strain

The third domain that was assessed to evaluate the utility of the EI training program was employee strain (i.e. psychological- and physical health). Psychological health refers to the psychological components of ill health (e.g. anxiety, depression), while physical health refers to the physical components of employee strain (e.g. sleeplessness, headaches). It was hypothesised that psychological- and physical health would improve, following participation in the EI training program. The results obtained in the evaluation of the training program supported this hypothesis. A significant improvement was evident in psychological health from measurement times 1 to 3. Similarly, a statistically significant improvement in physical health emerged between measurement times 1 and 3. The EI training program encompassed educational components that highlighted potential consequences of stress for an individual's health and well-being. To this end, participants were provided with exercises aimed at equipping them with the necessary skills to manage their health more effectively (such as progressive relaxation techniques and stress management techniques). During the sessions, participants were provided with an opportunity and platform to share their emotional experiences. Collectively, the ability to manage their health better, and the opportunity to share their emotions may have resulted in the teachers appraising their psychological state more positively, resulting in decreased feelings of psychological and physical ill-health. These results, although limited due to the absence of control group data, provide some evidence to support the possible utility of the intervention, in terms of the psychological and physical well-being of teachers. Several other studies have indicated that EI developmental programs were successful in improving psychological and physical well-being. In terms of psychological health, Slaski and Cartwright (2002) reported a significant decrease in psychological strain six months after completion of the EI training program. Furthermore, Gardner (2005) noted that a high percentage of participants in her study showed reliable improvement in psychological- and physical well-being, both immediately after the EI training program concluded, and at the follow-up measurement time.

Outcomes of stress

The fourth domain that was assessed to evaluate the effectiveness of the EI training program was the outcomes of stress. More specifically, it was hypothesised (based on the work of Gardner, 2005) that following participation in the EI training program, job satisfaction and organisational commitment would increase, whilst work-family conflict would decrease.

Unfortunately, the results of this study revealed that there was no significant change in the levels of organisational commitment and job satisfaction from before the commencement of the training program, to after the termination thereof. However, the results revealed a significant decrease in work-family conflict, a replication of Gardner's (2005) results, which should once again be interpreted against the background of a lack of control group data for this research. It may be argued that, given that the results revealed limited success in terms of the development of EI, it is not so surprising that the stress outcomes was not significantly impacted. A possible explanation for the lack of change found in organisational commitment and job satisfaction could perhaps be attributed to the content of the training program. The program incorporated traditional aspects of stress management (such as learning how to identify stressors and how to use relaxation techniques to deal with stressors) with learning how to deal with emotional reactions, effectively. It aimed to equip teachers with the necessary skills to deal with the emotions that arise from feelings of stress as well as how to use these skills to prevent health strains, promote more positive feelings of satisfaction, and promote more commitment to the workplace. Similar to stress, the lack of change found in job satisfaction and organisational commitment could be explained by noting that the most important stressors in this context (discussed in section 4.5) perhaps have limited malleability in the context of this study, due to the nature of the stressors (e.g. high work load, negative organisational culture). That is, changing the perception of a stressor such as high workload by increasing coping resilience through EI skills, will have limited effects if the actual workload issue is also not addressed in some way. However, these significant stressors could influence the individuals' feelings of commitment towards the school (Huang & Waxman, 2009) and job satisfaction levels, in a considerable way.

Throughout the training program the teachers were encouraged to share their own stress and emotional experiences, as well as to draw on those of others to assist them in managing their own stress and emotions. They were encouraged to be more attentive to and empathetic of the emotions of others as well as to attend to their emotional needs. This proved to be valuable, as the teachers enjoyed discussing stressful events that occurred at the school or at home with their colleagues and a third objective party (i.e. the facilitator). It was clear that they viewed the training sessions as a support structure, where they could confess built-up frustrations and anger, and share in the emotions and stressors of their colleagues. To this end, it may be that the desired results (in terms of the outcomes of stress) only manifested a few weeks after termination of the program. Gardner (2005), for example, found that the changes in job satisfaction and work-family conflict, found in her results, also continued over time. She hypothesised that a possible explanation could be that the components of the EI training program (particularly the structure of the group sessions, the encouragement of collegiate support, and the encouragement of frequent practice and reinforcement of the skills learned in the program) coupled with the content of training, assisted the participants in the long term in dealing with, and manage their emotions (Gardner, 2005).

Even though there were no significant changes in occupational stress, organisational commitment and job satisfaction after participation in the EI training program, the value of exploring relationships that emerged between the constructs should not be underestimated. Furthermore, given the possibility that relationships emerged between stress and strain, this study endeavoured to establish, as a replication of previous research (e.g. Ciarrochi et al., 2002; Gardner, 2005) whether EI played a moderating role in that relationship. A discussion of the most important results follows.

5.1.2 General exploration of EI, stress and strain relationships

A moderate, but significant negative relationship emerged between total occupational stress and total EI. This result contributes to existing literature proposing that EI and stress are related (e.g. Slaski & Cartwright, 2002; Tsaousis & Nikolaou, 2005). With specific reference to the ORQ subscales defined by Osipow (1998), correlation results indicated that no relationships emerged between EI and

Role Overload and Role Responsibility, respectively. However, significant negative relationships emerged between EI and the other three facets of occupational stress, namely Role Insufficiency, Role Ambiguity and Role Boundary. These findings were a replication of Gardner's (2005) results.

In terms of the relationship between EI and health, the results of this study corroborate the notion that higher EI is significantly related to better health (e.g. Gardner & Stough, 2003; Day et al., 2005; Shulman & Hemenover, 2006; Tsaousis & Nikolaou, 2005). Three of the five dimensions of EI (as defined by Palmer and Stough, 2001) were found to be significantly correlated to better psychological and physical health. These dimensions include Emotional Recognition and Expression, Emotional Management and Emotional Control. Gardner (2005) similarly found significant relationships between Emotional Management, Emotional Control, Emotional Recognition and Expression, as well as Understanding Emotions with both measures of employee health. Strong, positive relationships emerged between total EI and psychological health, as well as between total EI and physical health. To this end, it may be argued that the results found in this study confirm the idea that higher scores on EI are related to a lower prevalence of ill health (e.g. Oginska-Bulik, 2005; Schutte et al., 2007; Slaski & Cartwright, 2002; Tsausis & Nikolaou, 2005). Additionally, significant positive relationships emerged between occupational stress and both physical- and psychological health. This supports findings that feelings of occupational stress are often accompanied by feelings of poor psychological- and physical health (e.g. Day et al., 2005). Furthermore, evidence emerged to support the notion that EI moderates the relationship between stress and psychological health (e.g. Ciarrochi, 2002; Gardner, 2005; Slaski & Cartwright, 2002). Unfortunately, the results indicated that EI did not moderate the stress and physical health relationship. In chapter 4 it was proposed that the reason for this finding could be that EI plays a more important role in the effects of psychological health than in physical health when levels of stress are high.

5.1.3 EI and respective workplace variables

Based on research evidence reviewed in chapter two, three hypotheses were formulated to investigate the relationships between EI and various workplace variables (namely job satisfaction, organisational commitment and work-family conflict) in this study.

It was, firstly, hypothesised that a significant positive relationship will exist between EI and job satisfaction. That is, higher levels of EI will be associated with higher levels of job satisfaction. The results revealed that job satisfaction had a strong significant positive relationship with EI at measurement time 3. It may be that due to the EI training program, participants became more aware of their EI and how this could affect aspects in their lives (such as their level of job satisfaction). This finding suggests that individuals, who reported higher levels of EI, more likely reported higher levels of job satisfaction. This replicates research findings reported by Gardner (2005), Güleryüz et al. (2008), Sy et al. (2006), and Wong & Law (2002) who found that employees with higher levels of EI are more likely to have higher levels of job satisfaction, than their counterparts with lower levels of EI.

Secondly, it was hypothesised that a significant positive relationship will exist between EI and organisational commitment. That is, higher levels of EI will be associated with higher levels of organisational commitment. Unfortunately, no significant relationship emerged between EI and organisational commitment in this study. Literature available that supports the notion of a signiciant relationship between EI and organisational commitment, do not corroborate this finding. For example, researchers such as Carmeli (2003), Güleryüz et al., (2008), and Nikolaou and Tsaousis (2008), have provided empirical evidence for the positive relationship between EI and organisational commitment. Notwithstanding, this result replicates the finding of Garnder (2005).

Lastly, it was hypothesised that a significant negative relationship would emerge between EI and work-family conflict. That is, higher levels of EI would be associated with lower levels of work-family conflict (e.g. Gardner, 2005). The results supported the proposed hypothesis. It corroborates the findings of other studies where it was

found that respondents who reported higher levels of EI would most likely report lower levels of work-family conflict (e.g. Carmeli, 2003).

5.2 LIMITATIONS OF THIS STUDY

Like any research, this study has several limitations (primarily related to the research design) which may have affected the results

The most significant limitation is that this study did not make use of a control group. The use of a control group allows the researcher to detect any effects of the experiment itself, and can act as a guard against these effects, as well as the effects of any outside events (Babbie & Mouton, 2002). Unfortunately, the available participant pool at the school was too small to allow for the splitting of the sample group into an experimental and control group. The management of this school insisted that all the teachers in the school should attend the EI training program, as they viewed this as an opportunity to include the program in their school personnel development program. This particular school was located in an area of low socio-economic status. As previous chapters of this study have highlighted, contextual factors contributed significantly to the high levels of stress experienced by the teachers. As such, the utilisation of a control group from another school was not feasible. However, by including a control group in this study, important information could have surfaced as several situational factors possibly affected the teachers' participation, subsequent testing, and involvement in the program. For example, during session one of the training program, the teachers was busy with drawing up and finalising the academic reports of pupils. Participant feedback (qualitative field notes) indicated that many confessed that their thoughts were preoccupied with the reports and, as a result, they rushed through the psychometric measurements (pre-program measure) that were completed that day. In addition, evidence also emerged that some individuals confessed that they randomly choose options in respective tests only to get it over and done with (being faced with the time pressure for finishing the reports). For example, in the last training session, one participant mentioned that "the tests were conducted at the wrong time: we were all highly stressed and it would have been a total different scenario if this was conducted after the school holiday". This underscores another point in terms of the inconsistent occupational stress results in this study. A school year has four terms, which

introduces cycles of varying work demands for teachers. This should be taken into account when the next EI intervention (in terms of timing) is run at a school. Furthermore, during the second training session, the school was undergoing a 'whole school evaluation'. From the field notes it was clear that participants were highly stressed and once again, their thoughts were preoccupied with this school evaluation. This could have influenced the effectiveness of that training session as great deal of the session discussions (a trend in all the groups) focused mostly on this stressful event. Some teachers even communicated the severity of the amount of stress this creates, by pointing out that they constantly experience that the "the Department of Education does not understand the context of this particular school" and makes inaccurate evaluations about the effectiveness thereof, based on a one day isolated visit. These examples provide further evidence of the complexity of factors that cause stress in the school environment. Hence, control group data may have helped to explain the results much better, given that all participants (in the experimental and control group) would have been exposed to similar conditions at the school.

A second limitation of this study was that the data in this study were collected via self-report measurement instruments. The utilisation of self-report measurements is a common way of collecting data in the social sciences (Babbie & Mouton, 2002). However, this method is generally criticised for two main reasons. Firstly, the inferences made by the researcher (as to correlations and causal relationships between the variables in question) may be artificially inflated by the problem of common method variance. Secondly, such data are prone to response biases which should be acknowledged and understood when the results are interpreted (Donaldson & Grant-Vallone, 2002).

One such response bias that could have influenced the results in this study is social desirable responding. Social desirable responding occurs when respondents tend to create a more favorable impression of themselves by over-reporting admirable attitudes and behaviors, and under-report attitudes and behaviors that they feel are not so socially acceptable or respected (Zammuner & Galli, 2005b). Generally, this is a great concern in studies relying only on self-report questionnaires. This study

utilised seven self-report measures, and hence the results may have been affected by this possible limitation.

Another limitation of this study was that there was no follow-up measurement data (second post-program measure). The results derived from a follow-up measurement, would have allowed the researcher to more accurately assess any sustained change in teachers' levels of EI, stress, job satisfaction, organisational commitment, and work-family conflict. Such a post-measurement should ideally be conducted several months after concluding the EI training program, in order to obtain an accurate reflection of the change that occurred as a result of the training program. The main reason for this study not utilizing a post-measurement was time constraints.

The last limitation of the study is that of confounding variables. Specifically pertaining to stress, it is not known (or possible to accurately assess) stressors in other domains than the work environment (e.g. family, financial) which could 'spill over' to the work domain. Another confounding factor is the possible influence of situational and time specific variables to which the respondent(s) was exposed to at the time of the assessments. This pertains specifically to the situational factors mentioned previously (for example the reports the teachers had to prepare as well as the 'whole school evaluation'). Other examples include unstable home and familial relationships (possibly particularly prevalent here, due to the low socio economic status of the community the school is situated in), financial insecurity, extent of social support and personality traits. A few months after concluding the EI intervention program, another qualitative study was conducted in this particular school. This study shed some more light on the specific context of the school, which ultimately affects the nature of the educators' task and could influence the perceived stress and outcomes of stress, greatly. Chisholm et al. (2005) emphasized the multiple and complex roles of teachers to address the educational, psychological, social, financial, health care, spiritual and welfare needs of the learners in their care. The qualitative study shed some light on the demands of the teachers at this school, as well the social issues that they have to face, and deal with, on a daily basis. Due to these various roles it seems that they are left with limited time and energy to focus on more effective teaching. One of the main contributing factors seems to be that the South African government does not address these issues (e.g. lack of sufficient resources and

skilled educators) proactively. To this end, educators in this school have to orchestrate fund raising schemes in order to supply the pupils with books and stationary. They are involved with feeding-schemes since more than half of the children come from houses where there is not enough food for everyone. Teachers buy, with their own salaries, clothes for children who do not have more than one set of clothes, and they substitute some children's fees for school excursions in order for them to participate. One specific teacher mentioned that despite her financial limitations, she cooks for 16 homeless individuals, and buys them medicine when they are ill. These are just some examples of the demanding circumstances that the teachers in this specific school face on a daily basis. Ultimately, these demands could be increasing stress levels over the long term and lead to burnout and other negative strain outcomes. However, it is clear that increasing individual coping may be less effective, than focussing on alleviating the burden of these additional stressors the teachers bear (most of which, is also a legacy of the post-apartheid system in South Africa). Government intervention is imperative to help address the situation, and heal an increasingly weakening educational system.

The limitations of this study are rather common to the implementation and evaluation of training programs. However, given these limitations, this study provides one of the first comprehensive implementation and evaluations of a South African EI training program in the educational sector. It serves as a starting point for further development and adaptation of this specific program (which was developed in Australia) to suit the South African context.

5.3 RECOMMENDATIONS FOR FUTURE RESEARCH

It is recommended that a replication of this study should be conducted with a larger sample. In addition, the inclusion of a control group would be of paramount importance to effectively and accurately assess the utility of the program. A replication study should also include a post-programme follow-up measure in order to assess sustained changes in the respective variables.

The EI training program utilised in this study did not concentrate on stress eradication, but rather on the effective management of stress, and stress-related problems. Therefore, this program falls into the category of secondary prevention.

The problem with secondary prevention management programs is that they address the outcomes of stress, rather than the sources thereof. This serves as another recommendation for future research: researchers could incorporate primary prevention strategies that reduces that actual stressors in the work environment. Given the specific contextual factors of this particular school, and the context that the teachers operate in, it could be advantageous to their well-being to address some of the occupational stress factors discussed in sections 5.2 and 4.5.

From the facilitators' field notes, valuable information about the current content of the training program emerged. More specifically, several changes to the EI program could be made that would increase its effectiveness. For example, it is suggested that the training should be divided into more and shorter sessions. In addition, each training session should focus on only one EI dimension (two dimensions were covered per session in this study). Most participants did not complete their homework. The homework serves as a valuable and instrumental tool in the process of developing EI. It is therefore recommended that during the sessions, specific time to discuss the homework should be scheduled, to encourage the benefits of the completion thereof. Furthermore, the examples covered in the training material should be amended as they are too generic, and could be contextualized to fit the specific situation of the participant group more effectively. For example, some participants voiced concerns that they struggled to relate to the examples, and it would be more valuable if it is more specific to their culture / situations.

5.4 CONCLUSION

The overall aim of this study was to implement and evaluate an employee EI training program among a group of primary school teachers in South Africa. Furthermore, this study endeavored to empirically examine the relationships between EI, stressors, strains (i.e. psychological- and physical health) and outcomes of stress (i.e. job satisfaction, organisational commitment and work-family conflict). In addition, the notion that EI acts as a moderator in the stress-health relationship was investigated. This study introduced the first South African EI intervention / developmental program with primary school teachers, with the goal of empowering teachers to manage the emotions that arise from the experience of occupational

stress. Questionnaires were administered to 31 teachers and a series of statistical analyses were performed during the research process.

The results demonstrated limited, weak evidence that the EI training program was successful in improving teachers' levels of EI, The importance of high levels of EI among teachers has been highlighted in previous chapters. Accordingly, Kremenitzer et al. (2008) postulate that "a teacher with higher EI will be able to establish positive, satisfying and supportive relations with pupils that may lead to an emotionally warm classroom climate and in consequence, positive student consequences" (Kremenitzer et al., 2008, p. 194). Some evidence also emerged to suggest that the intervention may have contributed to improving teachers' physical- and psychological health, and decreasing their levels of work-family conflict. These results are consistent with previous research proposing that EI is significantly related to better overall health and decreased levels of work-family conflict. Unfortunately, this study was not successful in decreasing the levels of stress experienced by teachers. Furthermore, no increase in job satisfaction or increased feelings of commitment to the school was evident in teachers following participation in the program. These findings stand in contrast to research indicating that EI training programs are effective in decreasing stress and increasing organisational commitment and job satisfaction. Contextual factors probably played a significant role in the results of this study. Qualitative information (obtained from the facilitators' field notes) indicated that several context-specific factors could have contributed to the teachers' stress levels. Matthews et al. (2002) proposes that various influential stress factors may be beyond an individual's control, therefore individual coping strategies may not be successful in group settings (i.e. in a school setting). What may serve to be more effective is the concept of group coping (operationalised as social support) (Matthews et al., 2002). Unfortunately, due to logistical constraints, neither a control group nor a second post-measurement formed part of the research process. Collectively, this serves as two major limitations to this thesis. Nevertheless, this study provides further evidence that EI is related to job satisfaction, organisational commitment, and work-family conflict. Additionally, proof emerged to support the notion that EI moderates the relationship between stress and psychological health.

APPENDIX A: PARTIAL PRE-PROGRAM QUESTIONNAIRE PACK, INCLUDING GENERAL INFORMATION LETTER, CONSENT FORM AND DEMOGRAPHIC QUESTIONNAIRE

UNIVERSITEIT•STELLENBOSCH•UNIVERSITY
jou kennisvennoot • your knowledge partner

June 2008
Dear Participant,

EMOTIONAL INTELLIGENCE AND WELL-BEING IN TEACHERS
Request to complete the attached questionnaire

Thank you for agreeing to take part in the *Emotional Intelligence and Stress Management* intervention. The purpose of this questionnaire is to determine your current psychological well-being, as well as your level of Emotional Intelligence. Based on this information you will receive an Emotional Intelligence profile report. By completing this questionnaire now you will have baseline measures to track your development throughout the intervention.

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. Please note, however, that completing the questionnaire is a necessary prerequisite for participation in the intervention. 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.

The attached questionnaire consists of *2 sections*. 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 and other teachers in future.

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

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 (Estelle Swart & Gina Ekermans*)* 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 be in this study or not. If you agree to be in this study, you may withdraw at any time without consequences of any kind.

Identification of Investigators
If you have any questions or concerns about the research, please contact one of the researchers.

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.

CONSENT FORM (please fill in your name and sign below)

I, _____, (Name & Surname) agree to take part in this study and attend all five contact sessions. I agree that my data could be integrated into a summary of the results of all the questionnaires without identifying me personally.

Signed at _____ on the _____ of June 2008 _____(Signature)

SECTION A

Please answer the following general questions. This information is for <u>statistical purposes and use of the presenters ONLY.</u>

1. Gender

Male (01)	Female (02)

2. Age

Please specify:

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)

5. Language:
Third language (if applicable)

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
(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)		

8. Number of dependents

Please specify:

9. Which grade do you teach?

Please specify:

10. Years of service at *Silversands Primary*

Please specify:

11. Please indicate the average number of days you

Please specify:

have been absent from work due to illness in the past six months?

12. Number of years in teaching profession.

Please specify:

13. On average, how many hours a day do you work?

Please specify:

14. Post level in the school

Teacher (01)	Head of Department (02)	Deputy Head (03)
Head (05)		

15. Teaching qualification

Two-year teaching diploma (01)	Three-year teaching diploma (02)	Four-year teaching diploma (03)
Bachelor's degree (B Ed) (04)	Bachelor's degree and teaching diploma / certificate (05)	Honours degree (06)
Masters degree (07)	Doctoral degree (08)	
Other: please specify		

PLEASE TURN OVER AND COMPLETE SECTION B

SECTION B

Directions:
This section consists of a list of descriptive statements. In responding to the statements you will provide us with information about the way you see yourself typically dealing with emotions in the workplace.

You need to choose your response to each statement from one of five options for each item, ranging from "never" to "always". Try not to think too long about the exact meaning of the statements. Work quickly and try to answer as accurately as possible. There are no right and wrong answers!

On an average day at work, how frequently do you…

Statement	Never	Rarely	Sometimes	Often	Always
1. Display specific emotions required by your job.	1 Never	2 Rarely	3 Sometimes	4 Often	5 Always
2. Adopt certain emotions as part of your job.	1 Never	2 Seldom	3 Sometimes	4 Usually	5 Always
3. Express intense emotions.	1 Never	2 Rarely	3 Sometimes	4 Often	5 Always
4. Express particular emotions needed for your job.	1 Never	2 Rarely	3 Sometimes	4 Often	5 Always
5. Use a wide variety of emotions in dealing with people.	1 Never	2 Rarely	3 Sometimes	4 Often	5 Always
6. Resist expressing your true feelings.	1 Never	2 Rarely	3 Sometimes	4 Often	5 Always
7. Pretend to have emotions that you don't really feel.	1 Never	2 Rarely	3 Sometimes	4 Often	5 Always
8. Display many different emotions when interacting with others.	1 Never	2 Rarely	3 Sometimes	4 Often	5 Always
9. Make an effort to actually feel the emotions that you need to display toward others.	1 Never	2 Rarely	3 Sometimes	4 Often	5 Always
10. Show some strong emotions.	1 Never	2 Rarely	3 Sometimes	4 Often	5 Always
11. Express many different emotions when dealing with people.	1 Never	2 Rarely	3 Sometimes	4 Often	5 Always
12. Hide your true feelings about a situation.	1 Never	2 Rarely	3 Sometimes	4 Often	5 Always
13. Try to actually experience the emotions that you must show.	1 Never	2 Rarely	3 Sometimes	4 Often	5 Always
14. Really try to feel the emotions you have to show as part of your job.	1 Never	2 Rarely	3 Sometimes	4 Often	5 Always
15. Display many different kinds of emotions.	1 Never	2 Rarely	3 Sometimes	4 Often	5 Always

REFERENCES

Ahghar, G. (2008). The Role of School Organisational Climate in Occupational Stress among Secondary School Teachers in Tehran. *International Journal of Occupational Medicine and Environmental Health, 21*(4), 319–329.

Allen, N.J., & Meyer, J.P. (1996). Affective, Continuance, and Normative Commitment to the Organisation: An Examination of Construct Validity. *Journal of Vocational Behaviour*, 49, 252-276.

Arnold, J., & Davey, K.M. (1999). Graduate's work experiences as predictors of organisational commitment, intention to leave, and turnover: which experienced really matter? *Applied Psychology: An International Review, 48*(2), 211-238.

Ashkanasy, N.M., & Daus, C.S. (2002). Emotion in the workplace: The new challenge for managers. *Academy of Management Executive, 16*(1), 76–86.

Babbie, E., & Mouton, J. (2002). *The Practice of Social Research*. Cape Town: Oxford University Press.

Bachman, J., Stein, S., Campbell, K., & Sitarenios, G. (2000). Emotional intelligence in the collection of debt. *International Journal of Selection & Assessment, 8*, 176-182.

Bagby, R.M., Taylor, G.J., & Parker, J.D.A. (1994). The twenty-item Toronto Alexithymia Scale – II: convergent, discriminant and concurrent validity. *Journal of Psychosomatic Research, 38,* 23-32.

Balmforth, K., & Gardner, D. (2006). Conflict and Facilitation between Work and Family: Realising the Outcomes for Organisations. *New Zealand Journal of Psychology, 35*(2), 69-76.

Barling, J., Slater, F., & Kelloway, E.K. (2000). Transformational leadership and emotional intelligence: and exploratory study. *Leadership and Organisational Development*, *21*, 157-161.

Bar-On, R. (1997). *Emotional Quotient Inventory: Technical Manual.* Toronto: Multi-Health Systems.

Bar-On, R. (2000). Emotional and social intelligence: insights form the Emotional Quotient Inventory. In R. Bar-On, & J.D.A. Parker (Eds.). *The handbook of emotional intelligence* (pp. 363-388). San Francisco: Jossey-Bass.

Beehr, T.A. (1995). *Psychological Stress in the Workplace*. New York. Routledge.

Bogler, R., & Somech, A. (2004). Influence of teacher empowerment on teachers' organisational commitment, professional commitment and organisational citizenship behaviour in schools. *Teaching and Teacher Education, 20*, 277-289.

Brackett, M.A., Warner, R.M., & Bosco, J.S. (2005). Emotional intelligence and relationship quality among couples. *Personal Relationships*, *12*, 197-212.

Brand, T. (2007). An exploration of the relationship between burnout, occupational stress and emotional intelligence in the nursing industry. Published master's thesis, University of Stellenbosch.

Britt, T.W., & Dawson, C.R. (2005). Predicting Work-Family Conflict from Workload, Job Attitudes, Group Attributes, and Health: A Longitudinal Study. *Military Psychology, 17*(3), 203-227.

Brough, P., O'Driscoll, M.P., & Kalliath, T.J. (2005). The ability of 'family friendly' organisational resources to predict work-family conflict and job and family satisfaction. *Stress and Health*, *21*, 223-234.

Bruck, C.S., Allen, T.D., & Spector, P.E. (2002). The Relation between Work-Family Conflict and Job-Satisfaction: A Finer-Grained Analysis. *Journal of Vocational Behaviour*, *60*, 336-353.

Burke, R.J., & Greenglass, E. (1996). Works stress, social support, psychological burnout and emotional and physical well-being among teachers. *Psychology, Health & Medicine*, *1*, 193-205.

Carmeli, A. (2003). The relationship between emotional intelligence and work attitudes, behaviour and outcomes. *Journal of Managerial Psychology, 18*(8), 788-813.

Caruso, D.R., Mayer, J.D., & Salovey, P. (2002). Relation of an Ability Measure of Emotional Intelligence to Personality. *Journal of Personality Assessment, 79*(2), 306-320.

Chan, D.W. (2006). Emotional intelligence and components of burnout among Chinese secondary school teachers in Hong Kong. *Teaching and Teacher Education, 22,* 1042-1054.

Cherniss, C., Extein, M., Goleman, D., & Weissberg, R.P. (2006). Emotional Intelligence: What Does the Research Really Indicate? *Educational Psychologist, 41*(4), 239-245.

Chisholm, L. The Making of South Africa's National Curriculum Statement. (2005). *Journal of Curriculum Studies, 37*(2), 193-208.

Chisholm, L., Hoadley, U., wa Kivulu, M., Brookes, H., Prinsloo, C., Kgobe, Al, Mosia, D., Narsee, H., & Rule, S. (2005). *Educator workload in South Africa*. *Report prepared for Education Labour Relations Council.* Pretoria: Human Sciences Research Council.

Ciarrochi, J., Deane, F., & Anderson, S. (2002). Emotional intelligence moderates the relationship between stress and mental health. *Personality and Individual Differences, 32*, 197-209.

Ciarrochi, J., & Scott, G. (2006). The link between emotional competence and well-being: a longitudinal study. *British Journal of Guidance and Counselling, 34*(2), 231-243.

Cinamon, R.G., & Rich, Y. (2005). Work-family conflict among female teachers. Teacher and Education, 21, 365-378.

Cinamon, R.G., Rich, Y., & Westman, M. (2007). Teachers' Occupation-Specific Work-Family Conflict. *The Career Development Quarterly*, *55*, 249-269.

Cohen, A. (2007). Commitment before and after: An evaluation and reconceptualisation of organizational commitment. *Human Resource Review*, *17*, 336-354.

Cohen, J. (1988). *Statistical power analysis for the behavioural sciences*. Hillside, NJ: Erlbaum.

Cohen, J., Cohen, P., West, S.G., & Aiken, L.S. (2003). *Applied Multiple Regression / Correlation Analysis for the Behavioral Sciences* (3rd Ed.) Lawrence Earlbaum Associates. Mahwah: NJ.

Cooper, R.K. (1997). Applying emotional intelligence in the workplace. *Training and Development, 51,* 31-33.

Cooper, C.L., Clarke, S., & Rowbottom, A.M. (1999). Occupational stress, job satisfaction and well-being in anaesthetists. *Stress Medicine*, *15*, 115-126.

Cooper, C.L., Dewe., P.J., & O'Driscoll, M.P. (2001). *Organizational Stress: A review and critique of theory, research and applications.* Sage Publications: CA.

Cox, T. (1978). *Stress.* (Ed.). London: MacMillan

Day, A.L., & Carrol, S.A. (2004). Using an ability-based measure of emotional intelligence to predict individual performance, group performance, and group citizenship behaviours. *Personality and Individual Differences*, *36,* 1443-1458.

Day, C., & Gu, Q. (2007). Variations in conditions for teachers' professional learning and development: sustaining commitment and effectiveness over a career. *Oxford Review of Education*, *33*(4), 423-443.

Day, A.L., Therrien, D.L., & Carrol, S.A. (2005). Predicting Psychological Health: Assessing the Incremental Validity of Emotional Intelligence Beyond Personality, Type A behaviour, and Daily Hassles. *European Journal of Personality, 19*, 519-536.

De Beer, T., Mentz, K., & van der Walt, H. (2007). Die mate van werkstevredenheid ervaar deur `n groep Afrikaanssprekende onderwysers. *Tydskrif vir Geesteswetenskappe, 47*(2), 192-206.

Department of Education, Republic of South Africa (2005). Teachers for the future: Meeting teacher shortages to achieve education for all.

Deretchin, L.F., & Graig, C.J. (Eds.). (2007). *International Research in the Impact of Accountability Systems: Teacher Eduction Yearbook XV* (Teacher Education Yearbook). Lanham: Rowman & Littlefield.

Donaldson, S.I, & Grant-Vallone, E.J. (2002). Understanding self-report bias in organisational behaviour research. *Journal of Business and Psychology, 17*, 245 – 260.

Dulewicz, V., & Higgs, M. (2004). Can Emotional Intelligence be developed? *International Journal of Human Resource Management, 15*(1), 95-111.

Dulewicz, V., Higgs, M., & Slaski, M. (2003). Measuring emotional intelligence: content, construct and criterion-related validity. *Journal of Managerial Psychology, 18*(5), 405-420.

Edwards, J.R., Caplan, R.D., & Harrison, R.V. (1998). Person-environment fit theory: Conceptual foundations, empirical evidence, and directions for future research. In C.L. Cooper (Ed.), *Theories of Organizational Stress* (pp. 28-52). Oxford: Oxford University Press.

El Hassan, K., & El Sader, M. (2005). Adapting and Validating the BarOn EQ-i;YV in the Lebanese Context. *International Journal of Testing, 5*(3), 301-317.

Engelbrecht, P., Oswald, M., Swart, E., & Eloff, I. (2003). Including Learners with Intellectual Disabilities: stressful for teachers? *International Journal of Disability, Development and Education, 50*(3), 294-307.

Extremera, N., & Fernandez-Berrocal, P. (2005). Perceived emotional intelligence and life satisfaction: Predictive and incremental validity using the Trait Meta-Mood Scale. *Personality and Individual Differences*, *39*, 937-948.

Fletcher, B.C., & Jones, F. (1993). A Refutation of Karasek's Demand-Discretion Model of Occupational Stress with a Range of Dependent Measures. *Journal of Occupational Behaviour, 14(*4), 319-330.

Fletcher, I., Leadbetter, P., Curran, A. & O'Sullivan, H. (2009). A pilot study assessing emotional intelligence training and communication skills with 3rd year medical students. *Patient Education and Counselling,* article in press.

Frone, M.R., Russel, M., & Cooper, M. (1992). Prevalence of work-family conflict: Are work and family boundaries asymmetrically permeable? *Journal of Organisational Behaviour, 13*, 723-729.

Frone, M.R., & Yardley, J.K. (1996). Workplace family-supportive programmes: predictors of employed parents' importance ratings*. Journal of Occupational and Organisational Psychology*, 69, 351-366.

Fullan, M. (1993). *Change forces: Probing the depths of educational reform*. London: Falmer Press.

Furnell, B. (2008). Exploring the Relationship between Burnout, Emotional Labour and Emotional Intelligence: A Study on Call Centre Representatives. Published master's thesis, University of Stellenbosch.

Galloway, D., Panckhurst, F., Boswell, K., Boswell, C., & Green, K. (1984). Mental health, absence form work, stress and satisfaction in a sample of New Zealand primary school teachers. *Australian and New Zealand Journal of Psychiatry*, *18*, 359-363.

Gardner, L. (2005). *Emotional Intelligence and Occupational Stress*. PhD dissertation, Swinburne University, Melbourne, Australia.

Gardner, L., & Stough, C. (2002). Examining the relationship between leadership and emotional intelligence in senior level managers. *Leadership and Organisational Development, 23*, 68-78.

Gardner, L., & Stough, C. (2003). Exploration of the relationships between workplace Emotional Intelligence, occupational stress and employee health. *Australian Journal of Psychology,* the abstracts of the 38th Conference of the Australian Psychological Society, p. 181.

George, E., Louw, D., & Badenhorst, G. (2008). Job satisfaction among urban secondary-school teachers in Namibia. *South African Journal of Education, 28*, 135-154.

Gibson, J.L., Ivancevich, J.M., Donnelly, J.H. Jr., & Konopaske, R. (2006). *Organisations* (12th Ed). New York: McGraw-Hill.

Gignac, G.E. (2006). Self-reported emotional intelligence and life satisfaction: Testing incremental predictive validity hypothesis via structural equation

modelling (SEM) in a small sample. *Personality and Individual Differences*, *40*, 1569-1577.

Glisson, C., & Durick, M. (1988). Predictors of Job Satisfaction and Organisational Commitment in Human Service Organisations. *Administrative Science Quarterly, 33*(1), 61-81.

Gmelch, W.H., & Burns, J.S. (1994). Sources of Stress for Academic Department Chairpersons. *Journal of Educational Administration, 32*(1), 79-94.

Gohm, C.L., Corser, G.C., & Dalsky, D.J. (2005). Emotional intelligence under stress: Useful, unnecessary, or irrelevant. *Personality and Individual Differences, 39*, 1017-1028.

Goldberg, D., & Williams, P. (1988). *A user's guide to the General Health Questionnaire.* Great Britain: NFER-Nelson.

Grant-Vallone, E.J., & Donaldson, S.I. (2001). Consequences of work-family conflict on employee well-being over time. *Work & Stress, 15*(3), 214-226.

Green. G., & Reese, S.A. (2006). Job Satisfaction among High School Athletic Administrators. *Education, 127*(2), 318-320.

Grubb, W.L., & McDaniel, M.A. (2007). The Fakability of Bar-On's Emotional Quotient Inventory Short Form: Catch Me if You Can. *Human Performance, 20*(1), 43-59.

Gu, Q., & Day, C. (2007). Teacher resilience: a necessary condition for effectiveness. *Teaching and Teacher Education*, in press.

Guglielmi, R.S., & Tatrow, K. (1998). Occupational Stress, Burnout, and Health in Teachers: A Methodological and Theoretical Analysis. *Review of Educational Research, 68*(1), 61-99.

Güleryüz, G., Güney, S., Aydin, E.M., & Aşan, O. (2008). The mediating effect of job satisfaction between emotional intelligence and organisational commitment of nurses: A questionnaire survey. *International Journal of Nursing Studies,* article in Press.

Hammer, T.H., Saksvik, P.O., Nytro, K., Torvatn, H., & Bayazit, M. (2004). Expanding the Psychological Work Environment: Workplace Norms and Work-Family Conflict as Correlates of Stress and Health. *Journal of Occupational Health Psychology, 9*(1), 83-79.

Hansen, K., Gardner, L., & Stough, C. (2007). *Organisations & People, 14*(2), 70-75.

Hargreaves, A. (1994). *Changing teachers. Changing times*. London: Cassell.

Hargreaves, A. (1998). The emotional practice of teaching. *Teaching and Teacher Education, 14*(8), 835-854.

Hargreaves, A. (2000). Mixed emotions: Teachers' perceptions of their interactions with students. *Teaching and Teacher Education, 16*(8), 811-826.

Hargreaves, A. (2007). Sustainable leadership and development in education: creating the future, conserving the past. *European Journal of Education, 42*(2): 223-233.

Harrison, R.V. (1978). Person-environment fit and job stress. In C.L. Cooper & R. Payne (Eds.). *Stress at Work*. New York: John Wiley & Sons.

Hart, P.M., Wearing, A.J., Conn, M., Carter, N.L., & Dingle, R.K. (2000). Development of the School Organisational Health Questionnaire: A measure for assessing teacher morale and school organisational climate. British *Journal of Educational Psychology*, *70*, 211 – 228.

Hollyford, S., & Whiddett, S. (2002). *The Motivation Handbook.* CIPD.

Huang, S.L., & Waxman, H.C. (2009). The association of school environment to student teachers' satisfaction and teaching commitment. *Teaching and Teacher Education, 25*, 235-243.

Johnson, S., Monk, M., & Hodges, M. (2000). Teacher development and change in South Africa: a critique of the appropriateness of transfer of northern/western practice. *Compare, 30*(2), 179-192.

Justice, M., & Espinoza, S. (2007). Emotional Intelligence and Beginning Teacher Candidates. *Education, 127*(4), 456-461.

Kafetsios, K., & Zametakis, L.A. (2008). Emotional intelligence and job satisfaction: Testing the mediatory role of positive and negative affect at work. *Personality and Individual Differences*, *44*, 712-722.

Kagan, N.I., Kagan, H., & Watson, M.G. (1995). Stress reduction in the workplace: the effectiveness of psycho educational programs. *Journal of Counselling Psychology*, *42*, 71-78.

Kahn, R.L. & Byosiere, P. (1992) Stress in Organizations. In M.D. Dunnette, & L.M Hough (Eds.), *Handbook of Industrial and Organizational Psychology* (2nd ed), 571 – 650. Consulting Psychologists Press: Palo Alto, CA

Kalleberg, A.L. (1977). Work Values and Job Rewards: A Theory of Job Satisfaction. *American Sociological Review, 42*(1), 124-143.

Karasek, R.A. (1979). Job Demands, Job Decision Latitude, and Mental Strain: Implications for Job Redesign. *Administrative Science Quarterly, 24*(2), 285-308.

Kaufhold, D., & Johnson, L.R. (2005). The analysis of the emotional intelligence skills and potential problem areas of elementary educators. *Education, 125*(4), 615-626.

Keele, S.M., & Bell, R.C. (2008). The factorial validity of emotional intelligence: An unresolved issue. *Personality and Individual Differences*, *44,* 487-500.

Klem, C., & Schlecter, A.F. (2008). The relationship between leader emotional intelligence and psychological climate: An exploratory study. *South African Journal of Business Management, 39*(2), 9-23.

Kokkinos, C.M. (2007). Job stressors, personality and burnout in primary school teachers. *British Journal of Educational Psychology*, *77,* 229-243.

Konrad, A.M., & Mangel, R. (2000). The Impact of Work-Life Programs on Firm Productivity. *Strategic Management Journal, 21*(12), 1225-1237.

Kremenitzer, J.P., Mojsa, K., & Brackett, M.A. (2008). Creating an emotionally intelligent classroom culture. In R.J. Emmerling, V.K. Shanwal, & M.K. Mandal (Eds.). *Emotional Intelligence: Theoretical and Cultural Perspectives* (pp 191-207). Nova Sciences Publishers: New York.

Landa, J.M.A., Lopez-Zafra, E., Martos, M.P.B., & Aguilar-Luzon, M.C. (2007). The relationship between emotional intelligence, occupational stress and health in nurses: A questionnaire survey. *International Journal of Nursing Studies*, article in press, 1-14.

Landsbergis, P.A. (1988). Occupational Stress among Health Care Workers: A Test of the Job Demands-Control Model. *Journal of Organisational Behaviour, 9*(3), 217-239.

Lazarus, R.S., & Folkman, S. (1984). *Stress, Appraisal and Coping*. New York: Springer Publishing Company.

Lee, K., Allen, N.J., Meyer, J.P., & Rhee, K. (2001). The Three-Component Model of Organisational Commitment: An Application to South Korea. *Applied Psychology: An International Review, 50*(4), 596-614.

LeCompte, M.D., & Goetz, J.P. (1982). Problems of Reliability and Validity in Ethnographic Research. *Review of Educational Research, 52(*1), 31-60.

Lewis-Beck, M.S. (1980). *Applied Regression: An Introduction*. California: Sage Publications.

Lindquist, T.L., & Cooper, C.L. (1999). Using lifestyle and coping to reduce job stress an improve health in “at risk” office workers. *Stress Medicine*, *15*, 143-152.

Luebbers, S., Downey, L.A., & Stough, C. (2007). The development of an adolescent measure of EI. *Personality and Individual Differences*, *42*, 999-1009.

Lund, T. (2007). Tackling teachers’ pet hates. *FinWeek,* 24 May.

Lyons, J.B., & Schneider, T.R. (2005). The influence of emotional intelligence on performance. *Personality and Individual Differences*, *39*, 693-703.

Matthews, G., Emo, A.K., Funke, G., Zeidner, M., Roberts, R.D., Costa, P.T., & Shulze, R. (2006). Emotional Intelligence, Personality, and Task-Induced Stress. *Journal of Experimental Psychology, 12*(2), 96-107.

Matthews, G., Roberts, R.D., & Zeidner, M. (2004). Seven Myths About Emotional Intelligence. *Psychological Inquiry, 15*(3), 179-196.

Matthews, G., Zeidner, M., & Roberts, D. (2002). *Emotional Intelligence*. Massachusetts Institute of Technology: USA.

Mayer, J.D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. Sluyter (Eds.), *Emotional development and emotional intelligence: Implications for educators* (pp. 3-31). New York: Basic.

Mayer, J.D., Salovey, P., & Caruso, D.R. (1999). *Instruction Manual for the Mayer-Salovey-Caruso Emotional Intelligence Test Research Version* 1.1. USA: Multi-Health Systems.

Mayer, J.K., Salovey, P., & Caruso, D. (2000). Emotional intelligence as a zeitgeist, as personality and as a mental ability. In R. Bar-On, & J.D.A. Parker (Eds.), *The Handbook of Emotional Intelligence.* California: Jossey-Bass.

Mayer, J.D., Salovey, P., & Caruso, D.R. (2004). Emotional Intelligence: Theory, Findings, and Implications. *Psychological Inquiry, 15*(3), 197-215.

Mayer, J.D., Salovey, P., Caruso, D.R., & Sitarenios, G. (2003). Measuring Emotional Intelligence with the MSCEIT V2.0. *Emotion*, *3*, 97-105.

McGrath, J. E. (1970). *Social and Psychological Factors in Stress.* New York: Holt, Rinehart & Winston.

Mearns, J., & Cain, J.E. (2003). Relationships between teachers' occupational stress and their burnout and distress: Roles of coping and negative mood regulation expectations. *Anxiety, Stress, and Coping, 16*(1), 71-82.

Mesmer-Magnus, J.R., & Viswesvaran, C. (2005). Convergence between measure of work-to-family and family-to-work conflict: A meta-analytical examination. *Journal of Vocational Behaviour, 67*, 215-232.

Meyer, J.P., & Allen, N.J. (1997). *Commitment in the workplace. Theory, Research, and Application*. Sage Publications, Inc.

Mikolajczak, M., Menil, C., & Luminet, O. (2007). Explaining the protective effect of emotional trait intelligence regarding occupational stress: Exploration of emotional labour processes. *Journal of Research in Personality, 41*(5): 1107-1117.

Montgomery, C., & Rupp, A. (2005). A Meta-Analysis for Exploring the Diverse Causes and Effects of Stress in Teachers. *Canadian Journal of Education, 28*(3), 458-486.

Morrell, R. (2001). Corporal Punishment in South African Schools: a neglected explanation for its persistence. *South African Journal of Education, 21*(4), 292-299.

Mowday, R.T., Steers, R.M., & Porter, L.W. (1979). The measurement of organisational commitment. *Journal of Vocational Behaviour*, *14*, 224-247.

Namasivayam, K., & Zhoa, X. (2007). An investigation of the moderating effects of organisational commitment on the relationships between work-family conflict and job satisfaction among hospitality employees in India. *Tourism Management*, *28*, 1212-1223.

Nelis, D., Quoidbach, J., Mikolajczak, M., & Hansenne, M. (2009). Increasing emotional intelligence: (How) is it possible? *Personality and Individual Differences, 47*, 36-41.

Newsome, S., Day, A.L, & Catano, V.M. (2000). Assessing the predictive validity of emotional intelligence. *Personality and Individual Differences*, *29*, 1005-1016.

Nias, J. (1999). Teachers' moral purpose: Stress, vulnerability, and strength. In R. Vandenberghe, & A.M. Huberman (Eds.) *Understanding and preventing teacher burnout. A sourcebook for international research and practice* (pp. 223-237). Cambridge University Press.

Nikolaou, I., & Tsaousis, I. (2002). Emotional Intelligence in the workplace: exploring its effects on occupational stress and organisational commitment. *The International Journal of Organisational Analysis, 10*(4), 327-324.

Noor, N.M. (2004). Work-Family Conflict, Work- and Family-Role Salience, and Women's Well-Being. *The Journal of Social Psychology, 144*(4), 389-405.

Norms and Standards for Educators. Article retrieved on 2 August 2009, from http://www.policy.org.za/html/govdocs/notices/2000/not0082.html.

Oginska-Bulik, N. (2005). Emotional intelligence in the workplace: exploring its effects on occupational stress and health outcomes in human service workers. *International Journal of Occupational Medicine and Environmental Health, 18*(2), 16-175.

Osipow, S.H. (1998). *Occupational Stress Inventory Revised Edition (OSI-R)*. USA: Psychological Assessment Resources.

Palmer, B.R., Gardner, L., & Stough, C. (2003). The relationship between emotional intelligence, personality and effective leadership. *Paper presented at the 5th Australian Industrial & Organisational Psychology Conference,* June 26-29.

Palmer, B.R., Gignac, G., Manocha, R., & Stough, C. (2005). A psychometric evaluation of the Mayer-Salovey-Caruso Emotional Intelligence Test Version 2.0*. Intelligence*, *33*, 285-305.

Palmer, B.R., Manocha, R., Gignac, G., & Stough, C. (2003). Emotional Quotient Inventory with an Australian general population sample. *Personality and Individual Differences*, *35*, 1191-1210.

Palmer, B. & Stough, C. (2001). *Workplace SUEIT: Swinburne University emotional intelligence test – technical manual*. Organisational Psychology Research Unit, Swinburne University, Australia.

Parker, J.D.A., Creque, R.E., Barnhart, D.L., Harris, J.I., Majeski, S.A., Wood, L.M., Bond, B.J., & Hogan, M.J. (2004). Academic achievement in high school: does emotional intelligence matter? *Personality and Individual Differences*, *37,* 1321-1330.

Parker, J.D.A., Hogan, M.J., Eastabrook, J.M., Oke, A., & Wood, L.M. (2006). Emotional intelligence and student retention: Predicting the successful transition from high school to university. *Personality and Individual Differences*, *41*, 1329-1336.

Parker, J.D.A., Saklofske, D.H., Shaughnessy, P.A., Huang, S.H.S., Wood, L.M., & Eastabrook, J.M. (2005). Generalizability of the emotional intelligence construct: A cross-cultural study of North American aboriginal youth. *Personality and Individual Differences*, *39*, 215-227.

Petrides, K.V., & Furnham, A. (2001). Trait Emotional Intelligence: Psychometric Investigation with Reference to Established Trait Taxonomies. *European Journal of Personality, 15*, 424-458.

Petrides, K.V., Perez-Gonzales, J.C., & Furnham, A. (2007). On the criterion and incremental validity of trait emotional intelligence. *Cognition and Emotion, 21*(1), 26-55.

Petty, T.M. (2007). Empowering Teachers: They Have Told Us What They Want and Need to be Successful. *The Delta Kappa Gamma Bulletin*, 25-28.

Pollack Eisen, K., Allen, G.J., Bollash, M., & Pescatello, L.S. (2008). Stress management in the workplace: A comparison of a computer-based and an in-person stress-management intervention. *Computers in Human Behaviour*, *24,* 486-496.

Pretorius, S., & de Villiers, E. (2009). Educator's perceptions of school climate and health in selected primary schools. *South African Journal of Education*, *29,* 33–52.

Quick, J.D., Horn, R.S., & Quick, J.C. (1987). Health consequences of stress. In J. M. Ivancevich & D. C. Ganster (Eds.), *Job stress: From theory to suggestion* (pp. 19-36). New York: The Haworth Press.

Rahe, R.H., Taylor, B., Tolles, R.L., Newhall, L.M., Veach, T.L., & Bryson, S. (2002) A novel stress and coping workplace program reduces illness and healthcare utilisation. *Psychosomatic Medicine*, *64,* 278-286.

Rantanen, J., Kinnunen, U., Feldt., T., & Pulkkinen, L. (2008). Work-family conflict and psychological well-being: Stability and cross-lagged relations within one- and six-year follow-ups. *Journal of Vocational Behaviour,* article in press.

Robinson, M. (1999). Initial Teacher Education in a Changing South Africa: experiences, reflections and challenges. *Journal of Education for Teaching, 25*(3), 191-201.

Rooney, K. (1999). *Encarta: World English Dictionary*. Bloomsbury Publishing: London.

Rossen, E., Kranzler, J.H., & Algina, J. (2008). Confirmatory factor analysis of the Mayer-Salovey-Caruso Emotional Intelligence Test V 2.0 (MSCEIT). *Personality and Individual Differences*, *44*, 1258-1269.

Saarni, C. (2000). Emotional Competence. A developmental Perspective. In R. Bar-on & Parker, D. A. *The Handbook of Emotional Intelligence*. Jossey-Bass: USA.

Saklofske, D.H., Austin, E.J., Galloway, J., & Davidson, K. (2007). Individual difference correlated of health-related behaviours: preliminary evidence for links between emotional intelligence and coping. *Personality and Individual Differences*, *42*, 491-502.

Salovey, P., & Mayer, J.D. (1990). *Emotional intelligence, Imagination, Cognition, and Personality*, *9*, 185-211.

Sandlin, J.A., & Chen, C. (2007). Stress on the Job: How Family Literacy Program Directors Perceive Occupational Stress. *Adult Basic Educational and Literacy Journal, 1*(1), 12-20.

Shanwal, V.K. & Kaur, G. (2008). Emotional Intelligence in Education: Applications and Implications. In Emmerling, R.J., Shanwal, V.K., & Mandal, M.K. (pp.153 -

170) *Emotional Intelligence: Theoretical and Cultural Perspectives* (Eds.). Nova Science Publishers: New York.

Sharkey, S.B., & Sharples, A. (2003). The impact on work-related stress of mental health teams following team-based learning on clinical risk management. *Journal of Psychiatric and Mental Health Nursing*, *10*, 73-81.

Shcutte, N.S., Malouff, J.M., Bobik, C., Coston, T.D., Greeson, C., Jedlicka, C., Rhodes, E., & Wendorf, G. (2001). Emotional Intelligence and interpersonal relations. *The Journal of Social Psychology*, *141,* 523-536.

Schutte, N., Malouff, J., Hall, L., Haggerty, D., Cooper, J., Golden, C., & Dornheim, L. (1998). Development and validation of a measure of emotional intelligence. *Personality and Individual Differences, 25,* 167-177.

Schutte, N.S., Malouff, J.M., Thorsteinsson, E.B., Bhullar, N., & Rooke, S.E. (2007). A meta-analytical investigation of the relationship between emotional intelligence and health. *Personality and Individual Differences, 42,* 921-933.

Sheffield, D., Dobbie, D., & Carrol, D. (1994). Stress, social support, and psychological and physical well-being in secondary school teachers. *Work and Stress*, *8*, 235-243.

Shulman, T.E., & Hemenover, S.H. (2006). Is dispositional Emotional Intelligence Synonymous with Personality? *Self and Identity, 5,* 147-171.

Shulte, M.J., Ree, M.J., & Caretta, T.R. (2004). Emotional intelligence: not much more than g and personality. *Personality and Individual Differences*, *37*, 1059-1068

Shipper, F., Kincaid, J., Rotondo, D.M., & Hoffman, R.C. (2003). A cross-cultural exploratory study of the linkage between emotional intelligence and managerial effectiveness. *Journal of Organisational Analysis, 11*(3), 171-191.

Siu, O. (2002). Occupational stressors and well-being among Chinese employees: The role of Organisational Commitment. *Applied Psychology: An International Review, 51*(4), 527-544.

Skaalvik, E.M., & Skaalvik, S. (2009). Does school context matter? Relations with teacher burnout and job satisfaction. *Teaching and Teacher Education, 25*, 518-524.

Slaski, M., & Cartwright, S. (2000). Health, performance, and emotional intelligence: An exploratory study of retail managers. *Stress and Health*, *18*, 63-68.

Slaski, M. & Cartwright, S. (2002). Health performance and emotional intelligence: an exploratory study of retail managers. *Stress and Health, 18*(2), 63-68.

Slaski, M., & Cartwright, S. (2003). Emotional intelligence training and its implications for stress, health and performance. *Stress & Health*, *19*, 233-240.

Smylie, M.A. (1999). Stress in time of reform. In R. Vandenberghe, & A.M. Huberman (Eds.) *Understanding and preventing teacher burnout. A sourcebook for international research and practive* (pp. 59-84). Cambridge: Cambridge University Press.

Stangor, C. (2004). *Research Methods of the Behavioural Sciences* (2nd ed.).New York: Houghton Mifflin Company.

Sy, T., Tram, S., & O'Hara, L.A. (2006). Relation of employee and manager emotional intelligence to job satisfaction and performance. *Journal of Vocational Behaviour*, *68,* 461-473.

Tett, R., Wang, A., Fisher, R., Martinez, A. Griebler, J., & Linkovich, T. (1997). *Development of self-report measures of emotional intelligence*. Paper presented at the Annual Convention of the Southeastern Psychological Association, Atlanta, Georgia.

Travers, C.J., & Cooper, C.L. (1993). Mental health, job satisfaction and occupational stress among UK teachers. *Work and Stress*, *7*, 201-219.

Tsaousis, I., & Nikolaou, I. (2005). Exploring the relationship of emotional intelligence with physical and psychological health functioning. *Stress and Health*, *21*, 77-86.

Valley, S., Dolombisa, V., & Porteus, K. (1999). Violence in South African Schools. *Current Issues in Comparative Education, Teachers College*, November 15, 80-90

Van der Hek, A., & Plomp, H.N. (1997). Occupational stress management programmes: a practical overview of published effect studies. *Occupational Medicine, 47*(3), 133-141.

Van Houtte, M. (2006). Tracking and Teacher Satisfaction: Role of Study Culture and Trust. *The Journal of Educational Research*, 247-254.

Van Rooy, D.L., & Viswesvaran, C. (2004). Emotional intelligence: a meta-analytic investigation of predictive validity and nomological net. *Journal of Vocational Behaviour*, *65*, 71-95.

Warr, P., Cook, J., & Wall, T. (1979). Scales for the measurement of some work attitudes and aspects of psychological well-being. *Journal of Occupational Psychology*, *52*, 129-148.

Warwick, J., & Nettelbeck, T. (2004). Emotional intelligence is...? *Personality and Individual Differences*, *37,* 1091-1100.

Watkin, C. (2000). Developing Emotional Intelligence. *International Journal of Selection and Assessment, 8*(2), 89-92.

Winefield, A.H., Gillespie, N., Stough, C., Dua, J., & Hapuararchi, J. (2002). *Occupational Stress in Australian universities: A national surv*ey. Victoria: The National Tertiary Education Union.

Wong, C., Foo, W., Wang, C., & Wong, P. (2007). The feasibility of training and development of EI: An exploratory study in Singapore, Hong Kong and Taiwan. *Intelligence, 35*, 141-150.

Wong, C., & Law, K.S. (2002). The effects of leader and follower emotional intelligence on performance and attitude: An exploratory study. *The Leadership Quarterly*, *13*, 243-274.

Zammuner, V.L., & Galli, C. (2005b). The Relationship with Patients: "Emotional Labour" and its Correlates in Hospital Employees. In C.E.J Härtel, W.J. Zerbe, & N.M. Ashkanasy (Eds.), *Emotions in Organisational Behaviour* (pp. 251–285). Mahwah, New Yersey: Lawrence Erlbaum Associates, Publishers.

Zeidner, M., Matthews, G., & Roberts, R. D. (2004). Emotional Intelligence in the Workplace: A Critical Review. *Applied Psychology: An International Review, 53*(3), 371-399.

Zeidner, M., Roberts, R.D., & Matthews, G. (2002). Can Emotional Intelligence be schooled? A critical review. *Educational Psychologist, 37*(4), 215-231.

Zeidner, M., Roberts, R.D., & Matthews, G. (2004). The Emotional Intelligence Bandwagon: Too Fast To Live, Too Young To Die? *Psychological Inquiry, 15*(3), 239-248.

Zeidner, M., Shani-Zinovich, I., Matthews, G., & Roberts, R.D. (2005). Assessing emotional intelligence in gifted and non-gifted high school students: Outcomes depend on the measure. *Intelligence, 33,* 369-391.

Zembylas, M. (2007). *Five pedagogies, A thousand possibilities: Struggling for Hope and Transformation in Education.* Rotterdam, Netherlands: Sense Publishers.

Zulu, B.M, Urbani, G., van der Merwe, A., & van der Walt, J.L. (2004). Violence as an impediment to a culture of teaching and learning in some South African schools. *South African Journal of Education, 24*(2), 170-175.