# The relationship between emotional intelligence and self-efficacy amongst teachers in the Western Cape

#### **Shameema Matthews**

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Supervisor: Marieta Du Plessis

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#### Abstract

This study focused on the relationship between emotional intelligence (EI) and self-efficacy amongst teachers in the Western Cape. Teachers are often emotionally overwhelmed by having to meet the demands and expectations set by the education system, parents, colleagues and learners (Coetzee & Jansen, 2007). The South African educational system is in a transitional stage. The lack of discipline in schools, the abolishment of corporal punishment, unmotivated learners, redeployment, retrenchments and retirement packages for teachers, large pupil-teacher ratios and a new curriculum approach all contribute to raising the stress levels of teachers (Ngidi & Sibaya, 2002). Teachers also experience intense, emotion-laden interactions on a daily basis and experience a great number of emotional demands compared to other professionals (Burke & Greenglass, 1995). In particular, primary school teachers in socially deprived areas at times are considered to be more a child-welfare assistant than a conventional school teacher (Eacute & Esteve, 2000).

Salovey and Mayer (1990) define EI as the ability of people to deal with their emotions. The definition goes further to suggest that EI is the subset of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and action (Salovey & Mayer, 1990, as cited in Ream, 2010). Developing an individual's self-efficacy creates a regulation of self-awareness, which is essential in developing emotions. According to Bandura (1997), self-awareness creates a strong connection to self-efficacy, as self-efficacy emphasises self-awareness and self-regulation as factors influencing the development of self-efficacy beliefs. EI and self-efficacy merge as an individual interprets organisational realities by the ability to

recognise thoughts, feelings and behaviours through self-awareness, regulation and control (Bandura, 1997). In order to enable teachers to cope effectively with these demands, this study aimed to determine the relationship between EI and self-efficacy of teachers.

According to Gundlach, Marinko and Douglas (2003), the mental processes of self-efficacy can be impacted by emotions as "emotions left uncontrolled can interfere with the cognitive processing of information that can be vital to task performance" (p. 234). It can be deduced that a person with low EI and low self-efficacy will likely struggle in maintaining order in his/her daily tasks.

Ream (2010) states that when individuals are able to control their emotions, make accurate attributions with regard to past workplace events and objectively understand how their emotions and attributions influence their thoughts, feelings and expectancies about future workplace events, they are better able to enhance their self-efficacy beliefs. However, when organisational members are unable to control their emotions and fail to make objective attributions with regard to causation, it is likely that they will underestimate their capabilities and that their self-efficacy perceptions will suffer (Gundlach et al., 2003).

The study targeted teachers at various primary schools in the Western Cape. The respondents were asked to answer a self-administered consolidated questionnaire consisting of a biographical survey, the Schutte Self-Report Emotional Intelligence Test and the General Self-Efficacy Scale. Both these tests have been demonstrated to be psychometrically sound and their reliability and validity have been extensively reported on and supported in numerous studies. The sample group (n = 90) consisted of male and female teachers, and convenience sampling was utilised to select the sample.

The key findings of this study suggest that there is no significant relationship between the EI and self-efficacy of teachers and their demographic profile. Consistent with theoretical and empirical research by Penrose, Perry and Ball (2007) and Tschannen-Moran and Woolfolk-Hoy (2001), the present investigation demonstrated that neither gender nor age nor race was significantly related to the self-efficacy levels of teachers. This study enriches the literature regarding teachers' EI and self-efficacy by exploring the existence and extent of the relationship between these two variables.

**Keywords:** emotional intelligence, self-efficacy, teachers, General Self-Efficacy Scale, Schutte Self-Report Emotional Intelligence Test, measures of emotional intelligence, measures of self-efficacy, stress, social intelligence, self-awareness

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# **Declaration**

I declare that the relationship between emotional intelligence and self-efficacy amongst primary school teachers in the Western Cape is my own work, that it has not been submitted for any degree or examination at any other university and that all the sources I have used or quoted have been indicated and acknowledged by complete references.

Full name	Date	
Signed		



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#### **CHAPTER 1**

#### INTRODUCTION AND OVERVIEW OF THE STUDY

#### 1.1 INTRODUCTION

Education is a process that contributes to the natural and harmonious development of an individual. The main aim of education is the holistic development of students. A teacher is a central figure who can make a difference in the development of students. Therefore, it is essential that teachers possess the necessary skills, personality characteristics and behaviours to have an impact on their students' motivation and desire to learn (Lenka & Kant, 2012).

Bearing in mind the impact that teachers have on students, teaching is considered one of the most stressful occupations (Moafian & Ghanizadeh, 2009). According to research within a South African context, the main reasons for stress amongst teachers are the lack of discipline in schools, large pupil ratios and the high crime rate (Ngidi & Sibaya, 2002). Teachers also experience intense, emotion-laden interactions on a daily basis and experience a great number of emotional demands compared to other professionals (Burke & Greenglass, 1995). This view is supported by Coetzee and Jansen (2007) who explain that teachers are often emotionally overwhelmed by having to meet the demands set by the education system, parents, colleagues and students. The stress and emotional demands associated with the teaching profession can lead to emotional and physical exhaustion, cynical attitudes about teaching, reduced feelings of personal accomplishment and lower job satisfaction (Lenka & Kant, 2012). In particular, primary school teachers in socially deprived areas at times are

considered to be more a child welfare assistant than a conventional schoolteacher (Eacute & Esteve, 2000). Understanding the relationship between emotional intelligence (EI) and self-efficacy can help teachers to cope better with the demands of the job.

Salovey and Mayer (1990) define EI as the ability of people to deal with their emotions. The definition goes further to suggest that EI is the subset of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and action (Salovey & Mayer, 1990, as cited in Ream, 2010). Developing an individual's self-efficacy creates a regulation of self-awareness, which is essential in developing emotions. According to Bandura (1997), self-awareness creates a strong connection to self-efficacy, as self-efficacy emphasis self-awareness and self-regulation as factors influencing the development of self-efficacy beliefs. EI and self-efficacy merge as an individual interprets organisational realities by the ability to recognise thoughts, feelings and behaviours through self-awareness, regulation and control (Bandura, 1997).

According to Gundlach, Marinko and Douglas (2003), the mental processes of self-efficacy can be impacted by emotions as "emotions left uncontrolled can interfere with the cognitive processing of information that can be vital to task performance" (p. 234). One can deduce that a person with low EI and low self-efficacy will likely struggle in maintaining order in his/her daily tasks.

There is a scarcity of research studies that focus on the connection between EI and self-efficacy in teachers; this is particularly true in the South African context (Chan, 2007; McCollum, Kajs & Minter, 2007; Tschannen-Moran & Gareis, 2004).

A study by Mikolajczak and Luminet (2007) found that individuals who exhibited high EI had high self-efficacy. Furthermore, it was found that teachers with high EI were more likely to use active coping skills in stressful situations and to see stressful situations as a challenge instead of a threat. According to Penrose, Perry and Ball (2007), it is possible that enhancing a teacher's EI may also have a positive influence on his/her sense of self-efficacy. This in turn could lead to improved student achievement since self-efficacy is associated with important outcomes such as student learning and teacher effectiveness.

The information gathered through this study will contribute to research on how EI and self-efficacy can assist teachers in creating a positive learning environment in their classrooms and in alleviating stress (Coetzee & Jansen, 2007). Emotionally intelligent teachers are able to place themselves in a positive state of mind. They are also more likely to know how to avoid dysfunctional situations and how to use emotions in adaptive ways to alleviate feelings of frustration (Salami, 2007).

#### 1.2 RESEARCH QUESTION

Sekaran (2000, p. 68) defines a problem statement as a "clear, precise, and succinct statement of the question or issue that is to be investigated with the goal of finding an answer or solution". The problem statement for this study therefore relates to exploring whether there is a relationship between EI and self-efficacy amongst teachers in the Western Cape.

#### 1.2.1 Aim and research objectives

#### 1.2.1.1 Main objective

The main objective of this study was to determine the relationship between EI and self-efficacy amongst teachers in the Western Cape.

#### 1.2.1.2 Secondary objectives

- To determine the whether there are significant differences in the EI levels of teachers based on age, race and gender.
- To determine whether there are significant differences in the self-efficacy levels of teachers based on age, race and gender.
- To formulate possible recommendations regarding future research on the EI and self-efficacy levels of teachers.

# 1.3 HYPOTHESES UNIVERSITY of the

In order to achieve these objectives, the following hypotheses were constructed for this study.

- I. There is no statistically significant relationship between EI and self-efficacy.
- II. There is no statistically significant difference in levels of EI based on age, race and gender.
- III. There is no statistically significant difference in levels of self-efficacy based on age, race and gender.

#### 1.4 SIGNIFICANCE OF THE STUDY

According to Burger (2009), researchers identify teaching as a particularly stressful occupation and suggest that teachers experience disproportionately high levels of stress when compared to other professionals. Some reasons provided for this include long work hours, high workloads, lack of discipline, lack of respect from learners and the new South African curriculum that is enforcing learner-centred or cooperative teaching methods. This has ultimately resulted in the South African government admitting that it is facing a shortage of skilled teachers (Burger, 2009). This study was located within the South African context, and while it only focused on a small population in Cape Town in the Western Cape Province, it can provide a snapshot of the challenges or successes experienced by South African teachers related to self-efficacy and EI.

Bandura (1997) defines self-efficacy as the belief in one's ability to organise and execute the courses of action required to manage prospective situations. Self-efficacy comprises one's beliefs regarding what one is able to do. One's ability to reach an objective is related to the belief that the particular objective can be reached. Self-efficacy is a concept developed by Bandura through his socio-cognitive learning theory and it is defined as one's expectations regarding one's ability to accomplish specific tasks or goals. In a broader sense, self-efficacy can be understood as faith in the capacity for successful action (Ignat & Clipa, 2010).

Considering the conditions that teachers work under and the definition of self-efficacy, the information gathered in this study will help to contribute to research on how EI and self-efficacy can assist teachers in creating a positive learning environment in their classrooms and in alleviating stress. Emotionally intelligent teachers are able to place themselves in a

positive state of mind. They are likely to know how to avoid dysfunctional emotions and how to use emotions in adaptive ways to alleviate feelings of frustration (Salami, 2007).

#### 1.5 OVERVIEW OF THE CHAPTERS

This chapter provides a brief overview of the study in terms of the research question, hypotheses as well as the significance of the research. Chapter 2 defines the concepts and presents the reviewed literature relevant to this study. Chapter 3 addresses the research methodology, specifically reflecting the sample of the study, research instrument, procedure that was followed, problems experienced and data analysis. Chapter 4 presents the research findings for each hypothesis. Chapter 5 discusses the conclusions, recommendations, limitations as well as issues to be addressed in future research.

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#### **CHAPTER 2**

#### LITERATURE REVIEW

#### 2.1 INTRODUCTION

There has been increasing interest in the construct of EI within a school context. Although some studies in the field of education have focused on the EI of students and on the role that this plays with respect to academic achievement, demonstrating that students with higher EI experience more success in school Fabio & Palazzeschi, 2008), other studies have shown that teachers who promote EI skills emphasise the value of individual differences, enhance group work and problem-solving ability, and encourage students to develop adequate social competencies (Kaufhold & Johnson, 2005). These social competencies increase the relationship among pupils, their reciprocal respect and their involvement in class activities (Obiakor, 2001, as cited in Fabio & Palazzeschi, 2008).

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A teacher's job may be demanding and may involve difficulties with heavy workload and unruly students, which may result in feelings of frustration. Emotionally intelligent teachers are able to place themselves in a positive state of mind. They are likely to know how to avoid dysfunctional emotions and how to use emotions in adaptive ways to alleviate feelings of frustration (Salami, 2007).

According to Bandura (1986, as cited in Aremu, 2005), self-efficacy is concerned with people's judgement of their capabilities to organise and execute courses of action required to attain a designated type of performance. This chapter will explore the background and history of EI and self-efficacy as well as unpack the definitions of these constructs. Theories and

models relating to the EI and self-efficacy of teachers will be explored in this literature review and measures will be discussed.

#### 2.2 BACKGROUND AND HISTORY OF EMOTIONAL INTELLIGENCE

Gryn (2010) explains the history of EI, stating that its development is extensive and dates back to the beginning of the 20<sup>th</sup> century. In the 1920s Thorndike (1921, as cited in Gryn, 2010) became the first psychologist to explore social intelligence, which over time and with additional information became known as EI. Social intelligence can be defined as "the ability to understand and manage people" (Thorndike & Stein, 1937, p. 275). At that time the definition was broad and it was difficult to separate social intelligence from different types of intelligence. The difficulty in developing the concept of social intelligence was caused by its high correlation with verbal propositional and spatial performance intelligence (Mayer & Salovey, 1997; Salovey & Mayer, 1990). During the next half century after Thorndike's findings, attention was focused on IQ research. In the 1940s, Wechsler (1958) started discussing the non-intellective and intellective factors. He considered the non-intellective abilities as crucial for achieving success in life but at the same time also continued to develop his IQ test.

In the 1970s, researchers started exploring the impact of emotions on cognition as opposed to treating the concepts as separate entities (Mayer, 1986). The concept started to gain even more popularity when Gardner (1983) described EI in terms of personal intelligences – interpersonal and intrapersonal intelligence. However, it was only in 1990 that the topic became highly popular as a result of Salovey and Mayer's (1990) pioneering of their theory of ability-based EI.

Goleman (1998) made his mark when he wrote his book *Emotional intelligence: Why it can matter more than IQ* in 1995, which to this day is the most popular book on EI (Russell & Barchard, 2002). What makes his theory unique and different from previously developed models is its focus on EI in the work context and in the light of job performance. His theory suggests that social and emotional competencies are crucial in outstanding job performance (Emmerling & Goleman, 2003).

Extensive research for the last 10 years has been conducted on the concept of EI. With the aid of scholars such as Goleman and Bar-On, the concept has been explored in the work context and its influence on school and work performance has been investigated. It has been determined that EI is a combination of interpersonal and intrapersonal skills, that it changes with age and that it can be developed through training and coaching (Bar-On, 2007; Goleman, 2001).

## 2.3 DEFINING EMOTIONAL INTELLIGENCE

In the past decade much has been written about EI, and research has shown the powerful role that it plays in the workplace and in the lives of people. Various experts in the field have offered definitions and models in order to create a better understanding of what EI is and how it affects success in life and work (Wall, 2007).

The construct of EI was popularised by Daniel Goleman in 1995 with his book *Emotional intelligence: Why it can matter more than IQ.* In 1990, Salovey and Mayer (1990, p. 189) were the first to coin the term 'emotional intelligence' and defined it as a "subset of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions".

Goleman (1997) similarly defines EI as follows:

- Knowing what you are feeling and being able to manage those feelings without feeling overwhelmed.
- Being self-motivated to complete tasks, being creative and performing at fullest potential.
- Sensing what others are feeling and being able to manage relationships effectively.

Bar-On (1997) defines EI as a multifactorial range of interrelated emotional, personal and social abilities (these abilities are a type of emotional competence rather than natural intelligence) that influence an individual's overall ability to actively and effectively cope with demands and pressures. Mayer, Salovey and Caruso (2000, p. 267) state that "emotional intelligence is involved with the capacity to perceive emotions, assimilate emotion-related feelings, understand the information of those emotions and manage them".

Ciarrochi, Forgas and Mayer (2001) explain that EI refers to three primary mental abilities, namely the ability to perceive and accurately recognise emotions, the ability to understand and reason about emotions, and the ability to effectively regulate emotions.

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Coetzee and Jansen (2007) state that most researchers agree that the construct of EI is still under active development and that the following criteria need to be met:

- It is distinct from but positively related to other intelligences. More specifically, it is regarded as the intelligence that people apply to their emotional lives.
- It differs among individuals in the sense that some people are more endowed with it than others.

- It develops over a person's lifespan and can be developed and enhanced through training and practice.
- It involves particular abilities to reason intelligently about emotions, including identifying and perceiving emotions (in oneself and others) as well as the skills to be able to understand, reflect on and ultimately manage those emotions.

#### 2.3.1 Emotional intelligence and self-esteem

According to Coetzee and Jansen (2007), developing a healthy self-esteem is a core aspect of EI. In possessing high self-esteem, individuals are able to recognise how they influence their EI in relation to events, people and situations. High self-esteem leads individuals to think positively about their abilities. Bandura (1997) explains that people with high self-esteem also persist in a task for significantly longer than people with low self-esteem.

## 2.4 THEORIES AND MODELS OF EMOTIONAL INTELLIGENCE

Existing theories and models of the EI construct form the foundation for appreciating its value in society and in particular in the workplace. It is possible to classify EI theories into two basic types. These types include mental ability and 'mixed models' in which EI consists of both cognitive abilities and aspects of personality and motivation that facilitate application (Zeidner, Matthews & Roberts, 2004). The following sections will expand on these theories and types.

#### 2.4.1 Mayer and Salovey's model of emotional intelligence

Mayer and Salovey's (1997) model is a four-branch model describing four areas of capacities or skills that collectively describe many areas of EI.According to Figure 2.1, the four branches are perception, integration, understanding and management:

- It involves the ability to accurately perceive emotions in an individual and others.

  This has to do with the nonverbal reception and expression of emotion. The capacity to accurately perceive emotions in the faces or voices of others provides an important starting point for a more in-depth understanding of EI.
- It involves the use of emotions to facilitate thinking. This refers to the capacity of the emotions to enter into and guide the cognitive system and promote thinking.
- It involves the ability to understand emotional meanings. Understanding emotional
  messages and the actions associated with them is one important aspect of this area of
  skill.
- It involves the ability to manage emotions. Emotions often can be managed. It becomes possible to regulate and manage one's own and others' emotions so as to promote one's own and others' personal social goals.

EI research shows that emotions are signals that convey regular and discernible meanings about relationships. According to Mayer, Salovey and Caruso (2002), a number of basic emotions are universal. They propose that individuals vary in their ability to process information of an emotional nature and in their ability to relate emotional processing to a wider cognition. They then posit that this ability is seen to manifest itself in certain adaptive behaviours (Mayer et al., 2000).

Mayer et al.'s (2002) conception of EI is based within a model of intelligence that strives to define EI within the confines of the standard criteria for a new intelligence (Mayer et al.,2000 & Sitarenios, 2003). It proposes that EI is comprised of two areas: experiential (ability to perceive, respond to and manipulate emotional information without necessarily understanding it) and strategic (ability to understand and manage emotions without necessarily perceiving

feelings well or fully experiencing them). Each of the two areas is further divided into two branches that range from basic psychological processes to more complex processes integrating emotion and cognition. The first branch, emotional perception, is the ability to be self-aware with regard to emotions and to express emotions and emotional needs accurately to others. Emotional perception also includes the ability to distinguish between honest and dishonest expressions of emotion. The second branch, emotional assimilation, is the ability to distinguish among the different emotions one is feeling and to identify those that are influencing one's thought processes. The third branch, emotional understanding, is the ability to understand complex emotions (such as feeling two emotions at once) and the ability to recognise transitions from one to the other. The fourth branch, emotional management, is the ability to connect with or disconnect from an emotion, depending on its usefulness in a given situation (Mayer & Salovey, 1997). This four-branch model is illustrated in Figure 2.1, which outlines the four branches and the corresponding stages in emotional processing associated with each branch.

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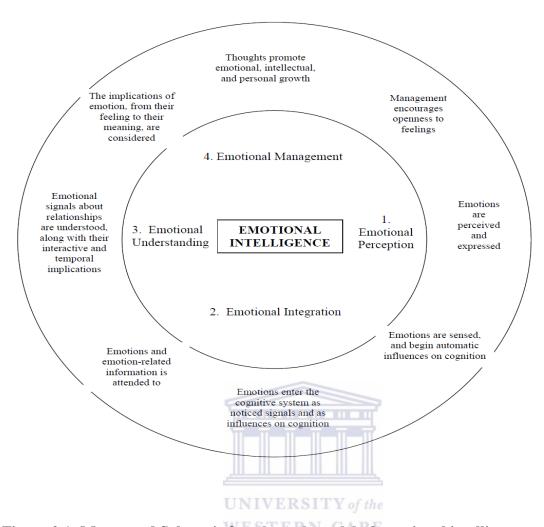


Figure 2.1: Mayer and Salovey's four-branch model of emotional intelligence

Source: Stys and Brown (2004)

#### 2.4.2 Bar-On's model of emotional intelligence

Bar-On (2007) argues that EI is closely related to social intelligence, and he often uses the construct of emotional-social intelligence. Bar On (1997) defines his mixed model of EI as "an array of non-cognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures" (p. 14). The mixed model is based on traits and abilities related to emotional and social knowledge and can be viewed as a model of psychological well-being and adaptation. In terms of this model, EI is (a) the ability

to be aware of, to understand and to express oneself, (b) the ability to be aware of, to understand and to relate to others, (c) the ability to deal with strong emotions and control one's impulses and (d) the ability to adapt to change and to solve problems of a personal or social nature (Bar-On, 2000).

According to Ream (2010), Bar-On's model of EI has five components and subcomponent categories:

- The intrapersonal domain integrates self-regard, emotional self-awareness, assertiveness, independence and self-actualisation.
- The interpersonal domain integrates empathy, social responsibility and interpersonal relationship.
- The adaptability component involves reality testing, flexibility and problem solving.
- The stress management component incorporates stress tolerance and impulse control.

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• The general mood component incorporates optimism and happiness.

Based on the research conducted by Bar-On, it is clear that emotional and social intelligence is composed of a number of intrapersonal and interpersonal competencies, skills and facilitators that combine to determine effective human behaviour. The way in which a person manages emotions is very important to effectively manage personal, social and environmental change in a realistic and flexible manner so that the decisions that are being made work for the person and not against him/her (Ream, 2010).

#### 2.4.3 Goleman's model of emotional intelligence

Goleman has been a leading scholar in understanding EI. Goleman's (2001) model was designed specifically for workplace applications. Goleman explains that it can be described as an EI-based theory of performance that involves 20 competencies that are divided into four clusters of abilities:

- Self-awareness the ability to fully understand oneself and to use that information to manage emotions productively.
- Self-management the ability to manage internal states, impulses and resources.
- Social awareness the ability to read people and groups accurately.
- Relationship management the ability to induce desirable responses in others.

#### 2.5 MEASURES OF EMOTIONAL INTELLIGENCE

While the definition and theory of a given construct are important, it is critical to understand how the construct can be measured practically to gain any mileage out of its meaning. According to Ciarrochi, Forgas and Mayer (2001), there are two main types of EI measure: performance tests and self-report questionnaires. A performance test entails responses that can be evaluated against objective, predetermined scoring criteria, whereas a self-report questionnaire asks respondents to report their own level of EI.

According to Ciarrochi et al. (2001), there are five key differences between performance and self-report measures:

Performance tests assess actual EI whereas self-report measures assess perceived EI.
 Perceived and actual EI are both important predicators (sometimes independent) as to how well people adapt to life's difficulties.

- Performance measures are generally more time consuming to administer than self-report measures. This is because self-report measures allow people to summarise their level of EI in a few concise statements whereas performance measures require a substantial number of observations before EI can be ascertained.
- Self-report measures, unlike performance tests, require people to have insight into their own level of EI. This has been proven to be difficult as people do not have an accurate understanding of their own intelligence.
- A major difficulty with self-report measures is that people can distort their responses
  to appear better or worse than they actually are. To eliminate these issues, self-report
  measures can include scales that can measure the extent to which people are distorting
  their responses.
- Self-report measures of EI tend to be related to well-established personality traits
   whereas performance measures tend to be less related to personality.

#### 2.5.1 Measures of Mayer and Salovey's model

Mayer and Salovey (1997) began testing the validity of their four-branch model of EI with the Multibranch Emotional Intelligence Scale (MEIS). Composed of 12 subscale measures of EI, evaluations with the MEIS indicated that EI was a distinct intelligence with three separate subfactors: emotional perception, emotional understanding and emotional management. The MEIS found only limited evidence for the branch of EI related to integrating emotions. Additionally, examination of the MEIS found evidence for discriminate validity in that EI was independent of general intelligence and self-reported empathy, indicating the MEIS's ability to measure unique qualities of an individual not encompassed by earlier tests. There were, however, certain limitations to the MEIS. Not only was it a lengthy test (402 items) but

it also failed to provide satisfactory evidence for the integration branch of the four-branch model (Mayer et al., 2002). For these and other reasons, Mayer and Salovey decided to design a new measure of EI.

The current measure of Mayer and Salovey's (1997) model of EI, the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), were tested on a sample of 5 000 men and women. The MSCEIT is designed for individuals 17 years of age or older and aims to measure the four abilities outlined in Mayer and Salovey's model of EI. Each ability (perception, facilitation of thought, understanding and regulation) is measured using specific tasks. Perception of emotion is measured by rating the extent and type of emotion expressed on different types of picture. Facilitation of thought is measured by asking people to draw parallels between emotions and physical sensations (for example, light, colour and temperature) as well as emotions and thoughts. Understanding is measured by asking the subject to explain how emotions can originate from other emotions (for example, how emotions can change from one to another such as anger to rage). Regulation (or management) of emotions is measured by having people choose effective self- and other management techniques (Brackett & Mayer, 2003).

According to Mayer et al. (2002), their EI test is a shortened version of the original EI test. It has less than a third of the items of the original MEIS and is comprised of 141 items. The scale yields seven scores: an overall EI score (expressed as an EI quotient [EIQ]), two area scores (experiential emotional intelligence quotient [EEIQ] and strategic emotional intelligence quotient [SEIQ]) and four branch scores corresponding to the four branches of EI. Each score is expressed in terms of a standard intelligence with a mean score of 100 (average score obtained in the general population) and a standard deviation of 15.

Additionally, the manual provides qualitative ratings that correspond to each numeric score. An individual, for example, who receives an overall EIQ of 69 or less would be rated as needing "considerable development" whereas someone scoring 130 or more would be rated as possessing "significant strength" (Mayer et al., 2002).

#### 2.5.1.1 Schutte Self-Report Emotional Intelligence Test

The Schutte Self-Report Emotional Intelligence Test (SSEIT) is based on the original Salovey and Mayer (1990, as cited in Gignac, Palmer, Manocha & Stough, 2005) theory of EI. Salovey and Mayer's original model included three categories of EI: (1) appraisal and expression of emotions, (2) regulation of emotions and (3) utilisation of emotions in solving problems. However, within these three categories are subcategories. Specifically, the appraisal aspect of the appraisal and expression of emotions category can be divided into appraisal of emotions in the self and appraisal of emotions in others. Similarly, the regulation of emotions category can be subdivided into regulation of emotions in others. Finally, and perhaps less clearly, utilisation of emotions can be subdivided into four components, namely flexible planning, creative thinking, redirected attention and motivation (Gignac et al., 2005).

Gignac et al. (2005) report a total of 10 first-order categories of EI within the Salovey and Mayer model. It should be noted that four of these categories are subsumed by the more unformulated utilisation of emotions dimension (Ginac et al., 2005). By deduction it could be argued that there are six primary dimensions within the Salovey and Mayer model.

Initially, Schutte et al. (1998) generated a set of 62 items to reflect all of the categories of Salovey and Mayer's model of EI. A principal components analysis was then conducted on the 62-item questionnaire, which was administered to 346 participants. After a process of

elimination and trial and error, only the 33 items that exhibited component loadings greater than 0.40 on the first component were retained for the purpose of forming the published version of the questionnaire.

#### 2.5.2 Measures of Bar-On's model

Dawda and Hart (2000) explain that the Bar-On Emotional Quotient Inventory (EQ-i) is a self-report measure of EI. The EQ-i is for individuals 16 years of age and over. It was developed as a measure of emotionally and socially competent behaviour that provides an estimate of one's emotional and social intelligence. The EQ-i is not meant to measure personality traits or cognitive capacity but is meant rather to measure one's ability to be successful in dealing with environmental demands and pressures (Bar-On, 2002; Dawda & Hart, 2000). In the self-report measure, 133 items are used to obtain a total emotion quotient (EQ) and to produce five composite scales corresponding to the five main components of the Bar-On model: intrapersonal EQ, interpersonal EQ, adaptability EQ, stress management EQ and general mood EQ. Items are measured on a five-point scale ranging from 1 ("very seldom/not true for me") to 5 ("very often/often true of me"). Total raw scores are converted into standard scores with a mean of 100 and a standard deviation of 15, similar to that of IQ scores (Bar-On, 2002). Bar-On has developed several versions of the EQ-i to be used with various populations and in varying situations. Among these are the EQ interview (to be completed after the self-report), the EQ-i Short Version (a 52-item version of the original), the EQ-i:125 (a 125-item version of the original that excludes the negative impression scale), the EQ-i Youth Version (for children and adolescents 7-15 years of age) and the EQ-360 assessment (a multirater instrument used in conjunction with the regular self-report EQ-i to give a more complete assessment). In addition, the original EQ-i is available in several languages, including Spanish, French, Dutch, Danish, Swedish, Norwegian, Finnish and Hebrew (Bar-On, 2002).

#### 2.5.2.1 Bar-On Emotion Quotient Inventory: Reliability and validity

The norms and standards applied to the EQ-i were based on approximately 4 000 respondents from the United States of America and Canada. Earlier versions of the EQ-i (which relied on 12 subscales rather than the current 15) were standardised internationally. These norms are presented in the technical manual for use with non-North American participants. The majority of the North American normative sample were White (79%) and under the age of 30 years, with equal representation of men and women (Bar-On, 2002). Stability estimates of the EQ-i (in the form of test-retest reliability after one and four months, respectively) were reported as 0.85 (n = 44) and 0.75 (n = 27). It should be noted that no stability estimates were reported for the North American sample; these figures reflect the South African sample. Based on seven population samples, the author's report internal consistency (in the form of Cronbach's alpha) as ranging from 0.69 to 0.86 for the 15 subscales and an overall average internal consistency of 0.76 (Bar-On, 2002).

The Bar-On EQ-i is a complete test in that it can classify each respondent within the range of EQ scores and can be used in a multitude of settings and situations, including corporate, educational, clinical, medical, research and preventative settings. Content validity is reported as being adequate in that items for each subcomponent were generated and selected in a systematic approach (Bar-On,2002). Additionally, item analyses were conducted in an effort to extract items unrelated to the definitions, and feedback was provided by subjects who were interviewed in the early stages of test development. Structural validity was established through factor analysis to test the hierarchical structure of Bar-On's model of EI. Analyses

supported the five components of EI however, exploratory factor analyses found support for a 13-factor model of subcomponents rather than Bar-On's proposed 15-factor model (Bar-On, 2002). Measures of criterion validity found that EI as measured with the EQ-i could accurately differentiate between those persons who were successful and those who were unsuccessful in business and industry settings. It could also differentiate between students with high and those with low self-perceived success in military school, between those United States Air Force recruiters who were successful in their work and those who were not, and between academically successful and unsuccessful university students. Likewise, those individuals who were suspected of intuitively having higher levels of EI (that is, psychologists) were found to have EQ-i scores significantly higher than the mean (Bar-On, 2002 & Swart, 1996, as cited in Stys & Brown, 2004).

Construct validity was illustrated through measures of convergent and divergent validity. No significant correlations were found between the EQ-i and several measures of standard intelligence (Bar-On, 2002; Brackett & Mayer, 2003), although the EQ-i has been found to be significantly correlated with measures of psychological and subjective well-being (r = 0.54 and r = 0.35) and with all of the Big Five personality factors (r = 0.16 to -0.57) (Brackett & Mayer, 2003).

Similarly, research has found that the total EQ scale was positively correlated with three of the best indicators of emotional functioning in a measure of personality, with acculturation (r = 0.34) and with sense of competence (r = 0.51), while being negatively correlated with other indicators of abnormal emotional functioning (Bar-On, 2002).

Comparisons with other measures of EI indicated that the EQ-i correlated only minimally with the Mayer-Salovey-Caruso Emotional Intelligence Test (r = 0.21) but more significantly with another self-report measure of EI, the SSEIT (Schutte et al., 1998). Tests of incremental validity of the EQ-i found that when personality and intelligence (IQ) were held constant, EI as measured by the EQ-i was still predictive of alcohol use (Brackett & Mayer, 2003).

#### 2.5.3 Measures of Goleman's model

Several measurement tools have been developed based on Goleman's model of EI and its corresponding competencies. Included among these are the Emotional Competency Inventory (ECI), the Emotional Intelligence Appraisal (EIA) and the Work Profile Questionnaire – emotional intelligence version (WPQ-ei) (Boyatzis, Stubbs & Taylor, 2002).

Goleman developed the ECI as a measure of EI based on his EI competencies as well as an earlier measure of competencies for managers, executives and leaders (the Self-Assessment UNIVERSITY of the Questionnaire) by Richard Boyatzis (1994, as cited in Stys & Brown, 2004). The ECI is a multirater (360-degree) instrument that provides self-, manager, direct report and peer ratings on a series of behavioural indicators of EI. It measures 20 competencies, organised into the four constructs outlined by Goleman's model: self-awareness, social awareness, self-management and social skills. Each respondent is asked to describe him-/herself or the other person on a scale from 1 (the behaviour is only slightly characteristic of the individual) to 7 (the behaviour is very characteristic of the individual) for each item, and in turn these items are converted into ratings for each of the competencies. The respondent is left with two ratings for each competency: a self-rating and a total others rating (Stys & Brown, 2004).

While this is core to the understanding of Goleman's model, it is essential to explore the EIA measure that was developed by Travis Bradberry and Jean Greaves in an effort to create a quick and effective measure of EI for use in a variety of settings. Based on Goleman's model of EI, the EIA uses 28 items to measure the four main components of the model (self-awareness, social awareness, self-management and relationship management) and takes an average of seven minutes to complete. Items target the existence of skills reflective of the above components and are rated using a six-point frequency scale with 1 reflecting "never" exhibiting behaviour and 6 reflecting "always" exhibiting behaviour. The EIA results in five final scores: an overall EQ score as well as a score for each of the four EI components (Stys & Brown, 2004).

Furthermore, Goleman established the WPQ-ei, designed as a self-report measure of seven competencies in the Goleman model of EI. Intended as a measure of competencies essential for effective work performance, the 84-item WPQ-ei gives participants a score (out of 10) for total EI and a score (out of 10) for each of the seven competencies of interest: innovation, self-awareness, intuition, emotions, motivation, empathy and social skills (Stys & Brown, 2004).

# 2.5.3.1 Measures of Goleman's model: Reliability and validity

The ECI was standardised on approximately 6 000 respondents in North America and the United Kingdom. Although normative data for other geographic areas are provided, these areas are underrepresented. The majority of the normative samples were white men holding mid- to senior-level management positions (Sala, 2002). Stability estimates have not been examined for the ECI. The technical manual reports internal consistency (in the form of

Cronbach's alpha) as ranging from 0.73 to 0.92 for the total others ratings and from 0.60 to 0.85 for the self-ratings (Sala, 2002).

The ECI is complete in that it can classify each respondent within the range of self- and others ratings. Evidence for content validity is reported in the technical manual through an accurate self-assessment study in which those individuals who were not aware of their strengths and weaknesses (had low accurate self-assessment) also had trouble evaluating themselves on EI competencies (there was a larger discrepancy between their self- and others ratings) (Sala, 2002). Structural validity (as tested through factor analysis) to determine whether Goleman's emotional competencies clustered around the proposed four-branch model of EI has not been promising due to high intercorrelations and theoretical interrelations among competencies (Sala, 2002).

Stys and Brown (2004) present evidence for construct validity through convergent and discriminant validity. The SSEIT was found to correlate significantly with alexithymia (r [24] = -0.65) and several elements of the Trait Meta Mood Scale, including attention to feelings (r [48] = 0.63), clarity of feelings (r [47] = 0.52) and increased mood repair (r [47] = 0.68). The SSEIT was found to be unrelated to SAT scores in 42 college students and related to only one factor (openness to experience, r [22] = 0.54) of the Big Five personality factors as measured by the NEO-PI (Schutte et al., 1998). However, more recent research has found that not only is the SSEIT significantly related to all but one factor (agreeableness) of the Big Five, it is also unrelated to a measure of Salovey and Mayer's model of EI (the MSCEIT), indicating that the SSEIT does measure different concepts of the construct (Brackett & Mayer, 2003).

Table 2.1: Commonly used measures of emotional intelligence

Measure	Theorist/s	Mode of measure	Brief description
MSCEIT	Mayer, Salovey and Caruso	Performance based	Specific tasks are used to measure level of ability of each branch of EI.
EQ-i	Bar-On	Self-report	Hundred and thirty-three self-report items measure total IQ and each of the five components of the Bar-On model.
ECI	Goleman	Self-report	A multirater instrument that provides ratings of a series of behavioural indicators of EI.
EIA	Goleman	Self-report	A seven-minute assessment meant to measure the accuracy of Goleman's four-component model of EI.
WPQei	Goleman	Self-report	Measures seven of Goleman's competencies thought of as the most essential for effective work performance.
Levels of Emotional Awareness Scale (LEAS)	Other	Self-report	Measures level of awareness of emotion in oneself and others.
SSEIT	Salovey and Mayer	Self-report	A 33-item measure of Salovey and Mayer's original concept of EI.

Source: Brackett and Mayer (2003)

#### 2.6 EXISTING STUDIES ON EMOTIONAL INTELLIGENCE AND TEACHERS

In their study that focused on EI and teachers, Coetzee and Jansen (2007) found that teachers were often emotionally overwhelmed by having to meet the expectations and demands set by the education system, parents, colleagues and learners. In coping with these demands, the onus remains on the teacher to serve the teaching profession with pride, compassion and passion. Furthermore, teachers give meaning to their chosen profession and make a difference in children's lives when they accept these challenges and the opportunities that they present. Teachers who are able to display emotionally intelligent behaviour toward their learners activate and nourish the hearts of their learners. EI creates the conditions that help learners to feel that they are cared for by someone who accepts them unconditionally and respects their uniqueness. Such teachers set clearly defined boundaries that are consistently upheld. They involve the learners in classroom activities and make them feel that they belong. An emotionally intelligent teacher will encourage learners to take an active part in classroom decision making (Coetzee & Jansen, 2007).

This is supported by Salami (2007) who states that a teacher's job may be demanding and involves difficulties with heavy workload and unruly students, which may result in feelings of frustration. Emotionally intelligent teachers are able to place themselves in a positive state of mind. They are likely to know how to avoid dysfunctional emotions and use emotions in adaptive ways to alleviate feelings of frustration (Salami, 2007).

EI develops the knowledge and skills needed for teachers to create a classroom climate that can calm learners down. Learners become motivated when they are approached with respect, genuineness and empathy (Coetzee & Jansen, 2007).

#### 2.7 BACKGROUND AND HISTORY OF SELF-EFFICACY

According to Lewandowski (2005), scholars have paid attention to how human behaviour was affected by the idea of self and how one's self-perception affects behaviour. William James believed that "introspective observation is what we have to rely on first and foremost and always" (Pajares, 2002, p. 185). James was among the first psychologists to address the notion of 'self-esteem', defining it as a feeling about oneself and what one thinks of one's personal accomplishments in relation to other members of society (Pajares, 2002, as cited in Lewandowski, 2005).

While behavioural psychologists such as Pavlov and Skinner dominated the 1920s through 1940s with attention to stimuli and response, the idea of 'self' lost significance. Education, closely following psychological theory, disregarded a focus on self and this was discounted in schools at this time (Lewandowski, 2005).

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It was not until the 1950s that Abraham Maslow redirected attention to the construct of self when he addressed the idea of a 'motivational process' in which individuals were motivated by unsatisfied needs. Motivation was increased by "the need to become self-actualized, that is, to achieve one's potentialities, capacities and talents" (Pajares, 2002, p. 3). As needs are met, other needs are identified as individuals proceed through the hierarchy of lower needs to higher needs. The humanistic movement led to a new enthusiasm for studying self-constructs and self-beliefs during the 1960s and 1970s. Schools' attempts to nurture a positive self-concept and self-esteem in students were marred by a lag between theory and practice. Clearly, much of the research on self-esteem and student achievement provided findings that were "inconclusive or provided unsettling results" (Pajares, 2002, p. 4); understandably, the enthusiasm for self-constructs began to diminish.

The 1970s and 1980s brought about the 'cognitive revolution', influenced greatly by technological advances such as the computer. Psychologists turned their attention to internal, mental tasking such as information processing, schema building and problem solving. Additionally, a nationwide concern that academic standards had dropped drastically, allowing students to be awarded a high school diploma with barely the skills necessary for daily functioning, caused a "back to basics approach to curriculum and practice" (p.24) in the educational system (Pajares, 2002).

# 2.7.1 Self-efficacy defined

The concept of self-efficacy is rooted in Albert Bandura's social cognitive theory. Bandura (1994) defines perceived self-efficacy as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (p. 71). The cognitive construct of self-efficacy is task and context specific (Bandura, 1977). In other words, self-efficacy beliefs determine how people feel, think, motivate themselves and behave in given situations. Bandura (1997) suggests that self-efficacy beliefs are not a stable character trait of a person but an active and learned system of beliefs held in context.

Bandura (1997) defines self-efficacy as "the beliefs in one's capabilities to organize and execute the courses of action required to manage prospective situations" (p.9). Self-efficacy comprises one's beliefs regarding what one is able to do. One's ability to reach an objective is related to the belief that the particular objective can be reached. Self-efficacy is a concept developed by Bandura through his socio-cognitive learning theory and it is defined as one's expectancy regarding one's own capabilities to accomplish specific tasks or goals. In a broader sense, self-efficacy can be understood as faith in the capacity for successful action.

#### 2.7.2 Sources of self-efficacy

According to Bandura (1994), a sense of self-efficacy has the following main sources of influence:

# (i) Mastery experiences

The mastery experience is the most influential source of self-efficacy because it relies on being involved in an authentic experience. Each successful task leads to achieving increasingly difficult accomplishments of a similar kind. Situations should be structured to bring about success and to avoid experiences that lead to repeated failure. In order to ensure a high level of initial success, the subject should break down difficult tasks into small steps that are comparatively easy (Heslin & Klehe, 2006). Once positive activities are conquered, self-efficacy tends to generalise to other situations, particularly in activities that are similar to those already mastered. However, even failures that are overcome with persistent effort can lead an individual to master even the most difficult tasks (Bandura, 1986).

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## (ii) Vicarious experiences

The second level at which self-efficacy is developed is through vicarious experiences provided by social models. Observers' belief systems are altered when they see people similar to themselves succeed with sustained effort; however, "observing that others perceived to be similarly competent fail despite high efforts lowers observers' judgments of their own capabilities and undermines their efforts" (Bandura, 1986, p. 399). Bandura reports that some factors make an individual more sensitive to vicarious influence, including uncertainty of his/her own capabilities, little prior experience and social evaluative criteria. Social models are effective at transmitting knowledge and teaching observers effective skills and strategies for managing the demands of their surroundings (Bandura, 1994).

# (iii) Social persuasion

Social persuasion, including verbal persuasion, is the third process to develop self-efficacy. When individuals are persuaded that they possess the capabilities to master a given task, they will be more likely to put forth effort and sustain the effort than when they have self-doubt and dwell on personal deficiencies. Unrealistic beliefs of personal competence can be quickly disconfirmed by disappointing results of the person's efforts (Bandura, 1986, 1994). This construct continues to enhance failure when a person is told repeatedly that he or she lacks the necessary capabilities to handle the tasks at hand, thus the person may give up in the face of difficulties. This spiral only validates the associated disbelief of the person's capabilities (Bandura, 1994).

# (iv) Physiological state

The fourth method that people use to develop self-efficacy is through their own physiological state. Signs of vulnerability to poor performance are interpreted through an individual's stressful reactions to tension. People with a heightened sense of self-efficacy can be energised toward performing better, while people with low self-efficacy or self-doubt interpret the energy as debilitating (Bandura, 1994).

# (v) Imaginary experiences

The fifth level of self-efficacy development is imaginary experiences or the ability of an individual to mentally rehearse tasks to determine what needs to be done to be successful (Maddux, 2005). The visualisation of the task is twofold. A positive visualisation can produce a positive result, while negative imagery can produce a negative result. Kazdin (1979) found

that imagery modelling could be used to improve assertive behaviour and improve selfefficacy toward assertiveness.

# (vi)Emotional feedback

The emotional state of the individual determines how levels of self-efficacy are impacted. A person who is calm is more self-efficacious than a person who is aroused or distressed (Maddux, 2005). The magnitude of mood can impact the level of self-efficacy at a given moment, such as being very positive or negative compared to being slightly positive or negative. The level of self-efficacy is greatly affected by how the person interprets developmental levels. Bandura (1986) suggests that if a person believes that he/she has the ability to decide successful outcomes through effort and persistence, this will increase performance and self-efficacy. With increased and successful performances comes a greater effort to achieve and persevere through difficult times.

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## 2.7.3 Dimensions of self-efficacy

Self-efficacy beliefs vary along three dimensions (Bandura, 1997; Maddux, 2005): (1) magnitude, which refers to the level a person believes him-/herself capable of performing at, (2) generality, which refers to the extent to which changes in self-efficacy beliefs extend to other behaviours and situations, and (3) strength, which refers to the resoluteness of people's convictions that they can perform a behaviour in question.

#### 2.8 MEASURES OF SELF-EFFICACY

# 2.8.1 General Self-Efficacy Scale

According to Schwarzer, Scholz, Gutierrez-Dona and Sud (2002), the General Self-Efficacy Scale (GSE) consists of 10 items that are designed to determine an individual's belief that he/she is able to accomplish new or difficult tasks. Each item touches on successful coping and entails an internal acknowledgement of success. The GSE asks respondents to rate each statement using a four-point rating scale (1 = "not at all true", 2 = "hardly true", 3 = "moderately true" and 4 = "very true") (Schwarzer et al., 2002).

# 2.8.2 Teacher Self-Efficacy Scale

The Teacher Self-Efficacy Scale according to Woolfolk-Hoy and Spero (2005) measures teacher self-efficacy through the identification of different job skills within the teaching profession. Four major areas were identified as job accomplishment, skill development on the job, social interaction with students, parents and colleagues, and coping with job stress. For each of these four domains teachers may hold different self-efficacy expectations. These major areas appear to be of vital importance for successful teaching. The scale comprises 10 items and respondents are asked to evaluate themselves using a four-point scale, on which 1 represents "never" and 4 represents "always".

## 2.8.3 Ohio State Teacher Efficacy Scale

The Ohio State Teacher Efficacy Scale (OSTES) assesses teacher self-efficacy (Fabio & Palazzeschi, 2008). The instrument is made up of 21 items with scores based on a nine-point Likert scale (from 1 = "nothing" to 9 = "a great deal"). The scale, as well as offering the possibility of obtaining a total score in self-efficacy, enables the exploration of three factors:

efficacy for instructional strategies, efficacy for classroom management and efficacy for student engagement (Tschannen-Moran & Woolfolk-Hoy, 2001).

#### 2.9 TEACHER SELF-EFFICACY

Teacher efficacy is broadly defined as a situation-specific expectation that teachers can help students to learn (Skaalvik & Skaalvik, 2010). Generally, self-efficacy can be understood as being grounded in the theoretical framework of social cognitive theory, emphasising the evolvement and exercise of human behaviour, that people can exercise some influence over what they do (Bandura, 2006). Bandura maintains that according to this conception, people are self-organising, proactive, self-regulating and self-reflecting. Self-efficacy from this perspective affects one's goals and behaviours and is influenced by one's actions and conditions in the environment (Schunk & Meece, 2006). Self-efficacy beliefs determine how environmental opportunities and impediments are perceived (Bandura, 2006) and affect choice of activities, how much effort is expended on an activity and how long people will persevere when confronting obstacles (Pajares, 1997, as cited in Skaalvik & Skaalvik, 2010).

It is important to develop self-efficacy in teachers because it is required in the decision-making process, in curricular planning, in the didactic process, in students' learning motivating and in the efficient communication process (Ignat & Clipa, 2010). According to Cantrell, Young and Moore (2003), teachers' self-efficacy is developed through growth in teaching experience, through reflections upon teaching modalities and through observation of other didactic experiences. It is very important for teachers to be in control of their own educational process and to fulfil their objectives. The development of the self-efficacy of future teachers can be done through simulation within practical seminars or through

pedagogical practical activities (observing and teaching). Evaluation and lesson analysis have a significant role in self-efficacy development as well as in teachers' self-reflexivity development and their motivation for a high-quality educational process. Self-efficacy contributes to teachers' responsibility for education and it brings about growth of students' learning motivation.

## 2.10 CHARACTERISTICS OF SELF-EFFICACY

Lewandowski (2005) explains that beliefs of self-efficacy differ in level, generality and strength. Specifically, the perception of a task is affected by the level of task demands necessary to accomplish the task. Will the demands be classified as simple, moderate or difficult? Generality refers to the range of activities that are included in the perception of the performed task. Self efficacy is more generalisable when activities are similar in degree and with regard to situations and require the same capabilities. Finally, strength varies with selfefficacy beliefs. Those who have weak self-efficacy beliefs will allow negative experiences to weaken their self-efficacy as they give up working toward the goal. Furthermore, those with strong self-efficacy beliefs will continue to strive for accomplishment, even if difficulties or obstacles become apparent (Bandura, 1986; 1997). Bandura's self-efficacy theory distinguishes between outcome expectancy and efficacy expectation. The degree to which the teacher believes that the environment can be controlled is outcome expectancy. It deals with the general belief that a specific action produces a specific outcome. It does not refer to individual teachers' capabilities. The conviction that the teacher is personally capable of successfully executing actions that will result in the wanted outcome defines efficacy expectation (Bandura, 1986; Gibson & Dembo, 1984). It is efficacy expectation that predicates an individual's undertaking of a specific action. If the individual perceives the ability to successfully handle the task, he/she is more likely to engage in the task. Once engaged in the task, the positive perception of self-efficacy and a positive outcome expectancy will drive the individual to persist to completion. Upon successful completion of the task, the individual's positive self-efficacy will be affirmed or strengthened even more. Those who have a weak efficacy expectation and outcome expectancy will allow fear and apprehension with regard to obstacles to turn them away. Should the individual with a weak self-perception attempt the task, this person will be more likely to surrender in the presence of difficulties or obstacles, ultimately resulting in a lower self-efficacy (Bandura, 1977, 1986, 1997; Gibson & Dembo, 1984 Smylie, 1990).

The locus of control focuses on causal beliefs with regard to actions and outcomes, and whether the outcomes and actions are controlled internally or externally. Specifically, individuals with an internal locus of control believe that outcomes are a result of their own actions. Individuals possessing an external locus of control will conclude that external factors over which they had no control, such as luck, contributed to the specific outcome (Bandura, 1997; Marsh & Weary, 1995). However, a strong internal locus of control will not guarantee a strong sense of self-efficacy for an individual. For example, those who believe themselves to be incapable of performing specific activities may experience an inefficacious locus of control and a weak sense of self-efficacy (Bandura, 1977, 1997; Smylie, 1990).

A difference between self-efficacy and self-concept (often referred to as self-esteem) exists. Quite often researchers use the terms 'self-efficacy' and 'self-concept' interchangeably. However, Bandura has made noticeable distinctions. Again, self-efficacy refers to personal judgments about an individual's ability. Self-concept and self-esteem are based on an individual's feelings of self-worth as related to the values of society (Pajares, 2002). One

major difference between self-efficacy and self-concept is that no fixed relationship exists between the integration of cognitive, social and behavioural skills. An individual's belief about the perceived ability (self-efficacy) to perform a task extends beyond just the basic knowledge of what to do. Perception of self-efficacy stems from the interplay of the aforementioned skills. Bomber pilots, for example, may believe themselves to be very efficacious at what they do but may not necessarily be proud of their ability to perform it well because of the type of task (Bandura, 1982; Pajaras, 2002; Smylie, 1990).

Finally, a key difference is that self-efficacy beliefs are not static. These beliefs may be altered as a result of contextual factors. An individual, for example, may have a positive self-efficacy belief for driving on country roads; however, the belief may change as a result of driving in the city (Bandura, 1982; Pajares, 2002; Smylie, 1990).

Taking these specific differences into consideration, one realises that assessment for each concept would differ. According to Graham and Weiner (1995), when an individual acquires new skills, added to the performance of previous skills, efficacy beliefs are adjusted; no other motivational concept with an expectancy construct adheres to such specificity.

#### 2.11 SENSE OF SELF-EFFICACY

#### **2.11.1 Strong sense of self-efficacy**

High levels of self-efficacy are more likely to yield perseverance in dealing with and managing occupational stress, which is likely to ultimately impact on the individual's work performance (Naldrett, 2006). Bandura (1994, as cited in Naldrett, 2006) states that people who believe in their own capabilities are more inclined to approach tasks differently. They

will also be more inclined to improve and sustain their efforts and will recover more quickly in the event of setbacks, support to the relationship between task performance, motivation and self-efficacy (Naldrett, 2006).

#### 2.11.2 Low sense of self-efficacy

Bandura (1994, as cited in Naldrett, 2006) states that people who doubt their capabilities, who shy away from difficult tasks and who have low aspirations and weak commitment to goals that they attempt to pursue are characterised as having a low sense of self-efficacy. In a study conducted by Klaasen and Chiu (2010), it was reported that the lower levels of older teachers' self-efficacy beliefs might be influenced not only by biological and psychological changes related to chronological age but also by student and peer perceptions of declining competence influenced by stereotyped beliefs about aging. Furthermore, Klaasen and Chiu summarise their findings on a low sense of self-efficacy by stating that age-related changes in motivation beliefs, such as self-efficacy, are influenced not only by chronological age but also by the psychosocial context of the work environment. The contexts in which the teachers worked were also linked with their self-efficacy. Teaching in elementary schools and teaching kindergarten were linked with higher levels of self-efficacy for classroom management and student engagement. There has been surprisingly little research on how teaching context influences teachers' self-efficacy (Klaasen & Chiu, 2010).

In a similar study conducted by Wolters and Daugherty (2007), it was found that teachers of higher grade levels reported lower self-efficacy than teachers of lower grade levels and that the inverse relationship between teaching level and self-efficacy was especially marked for teachers of elementary school-aged students in comparison to teachers of middle and high school-aged students.

# 2.12 THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND SELF-EFFICACY

Salovey and Mayer (1990) define EI as the ability of people to deal with their emotions. The definition goes further to suggest that EI is the subset of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and action (Salovey & Mayer, 1990, as cited in Ream, 2010). Developing an individual's self-efficacy creates a regulation of self-awareness, which is essential in developing emotions. According to Bandura (1997), self-awareness has a strong connection to self-efficacy, as self-efficacy emphasises self-awareness and self-regulation as factors influencing the development of self-efficacy beliefs. EI and self-efficacy merge as an individual interprets organisational realities by the ability to recognise thoughts, feelings and behaviours through self-awareness, regulation and control (Bandura, 1997).

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According to Gundlach et al. (2003), the mental processes of self-efficacy can be impacted by emotions as "emotions left uncontrolled can interfere with the cognitive processing of information that can be vital to task performance" (p. 234). One would surmise that a person with low EI and low self-efficacy will likely struggle in maintaining order in his/her daily tasks.

Ream (2010) says that when individuals are able to control their emotions, make accurate attributions with regard to past workplace events and objectively understand how their emotions and attributions influence their thoughts, feelings and expectancies about future workplace events, they are better able to enhance self-efficacy beliefs. When organisational members are unable to control their emotions and fail to make objective attributions with

regard to causation, it is likely that they will underestimate their capabilities and their self-efficacy perceptions will suffer (Gundlach et al., 2003).

There is a scarcity of research studies that focus on the connection between EI and the self-efficacy of teachers. Similarly, there is little research available on the connection between these factors in school administrators (McCollum, Kajs, & Minter, 2006 Tschannen-Moran & Gareis, 2004). Chan (2007) and Mikolajczak and Luminet (2007) found that individuals who exhibited high EI had high self-efficacy. Furthermore, it was found that teachers with high EI were more likely to use active coping skills in stressful situations and to see stressful situations as a challenge instead of a threat. According to Penrose et al. (2007), it is possible that enhancing a teacher's EI also has a positive influence on his/her sense of efficacy. This in turn could lead to improved student achievement since self-efficacy in teachers is associated with important outcomes such as student learning and teacher effectiveness.

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Penrose et al. (2007) and Rastegar and Memarpour (2008, as cited in Ream, 2010) found a positive significant relationship between EI and the self-efficacy of teachers.

#### 2.13 CONCLUSION

This literature review suggests that a relationship does exist between EI and the self-efficacy of teachers. The literature described in this section will be used to later unpack the findings of this study; using the constructs, theories and models, it will assist in the conclusions and inferences made in the final discussion in chapter 5.

#### **CHAPTER 3**

#### RESEARCH METHODOLOGY

#### 3.1 INTRODUCTION

This chapter describes how the research project was conducted. It will specifically describe the hypotheses, the population, the sample of the study, the measuring instrument used and the procedure followed to gather the data.

## 3.2 HYPOTHESES

- I. There is no statistically significant relationship between EI and self-efficacy.
- II. There is no statistically significant difference in levels of EI based on age, race and gender.
- III. There is no statistically significant difference in levels of self-efficacy based on age, race and gender.

#### 3.3 RESEARCH METHODOLOGY

According to Babbie and Mouton (2007), quantitative research is defined as the numerical presentation and manipulation of observations for the purpose of describing and explaining the phenomena that those observations reflect. Therefore, a quantitative empirical investigation instead of a qualitative design was chosen for this study. The aim of the study

was not to describe or emphasise meaning or experiences but was rather to solve the stated problem by analysing and interpreting data statistically. The advantages of quantitative research are that this type of research is considered to be more objective and structured and has both high validity and reliability (Coolican, 1999).

## 3.3.1 Population

A population is defined as the "total collection of individuals or objects that forms the focus of the research" whereas the sample is "a selected part or a subset of the population" (Pretorius, 1995, p. 73). According to Pretorius, research is generally conducted to make inferences about the population based on the information available about the sample, in order to make inferences from the sample to the population. The population in this study consisted of teachers (n = 300) from six primary schools in the Western Cape. A representative sample (n = 150) was drawn from the population.

# **3.3.2 Sample**

Creswell (2005) defines a sample as a subgroup of the target population that the researcher intends to study for generalising about the target population. Sekaran (2003) defines a sample as a subset of the population; it comprises some members selected from the population. The sample included in this study was 150 teachers from six primary schools in the Western Cape. According to Sekaran (2003), the ideal sample size should constitute approximately 115 respondents according to the population (n = 300) of this study.

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## 3.3.3 Demographics of the entire sample

The final sample consisted of 90 primary school teachers of whom 74% (n = 67) were women and 26% (n = 23) were men, indicating a majority of female respondents. Most of the respondents indicated their first language to be English (59%; n = 53), followed by Afrikaans (38%; n = 34) and Xhosa (1%; n = 1); some respondents listed their home language as "other" (2%; n = 2). The majority of the respondents (77%; n = 69) were coloured, 7% (n = 6) were African, 7% (n = 6) were Indian, 2% were White and 8% (n = 7) were classified as other racial groups. A majority of the respondents (44.4%; n = 40) were in the age group 41–50 years, 27% (n = 24) fell into the age group 31–40, 18% (n = 16) were 51 years and older, while 11% (n = 10) were aged 20–30 years. In terms of teaching qualifications, 34% (n = 31) had a bachelor's degree, 34% (n = 31) had a four-year teaching diploma, 21% (n = 19) had a three-year teaching diploma, 6% (n = 5) had an honours degree, while 3% (n = 3) had a two-year teaching diploma; only one respondent (1%) reported having a master's degree. In the tables below, the grades that the respondents taught and their years of teaching experience are listed.

**Table 3.1: Grades that respondents taught** 

Grade	N	Percent of sample
Grade 1	12	13.3
Grade 2	18	20
Grade 3	11	12.2
Grade 4	12	13.3
Grade 5	13	14.4
Grade 6	10	11.1
Grade 7	14	15.6
Total	90	100

Table 3.1 above indicates that 20% (n = 18) taught Grade 2, 15.6% (n = 14) taught Grade 7, 14.4% (n = 13) taught Grade 5, (13.3%; n = 12) Grade 1 and Grade 4 (13.3%; n = 12), 12.2% (n = 11) taught Grade 3 and 11.1% (n = 10) taught Grade 6.

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Table 3.2: Years of teaching experience

Years of teaching experience	N	Percent of
		sample
0–5 years	9	10
6–10 years	16	17.8
11–15 years	9	10
16–20 years	21	23.3
21–25 years	12	13.3
26–30 years	7	7.8
31 + years	16	17.8
Total	90	100

In Table 3.2 the respondents' years of teaching experience is listed. The majority of the respondents (23.3%; n = 21) had 16–20 years experience, 17.8% (n = 16) had 6–10 years experience, the same number had 31 years and more experience, 13.3% (n = 12) had 21–25 years experience, 10% (n = 9) had 0–5 years experience, which was the same for respondents with 11–15 years experience, and 7.8% (n = 7) had 26–30 years experience.

# 3.3.4 Sampling procedure

A non-probability sampling design was used, based on the method of convenience. In this study, the type of sampling that was used was convenience sampling. According to Sekaran (2003), the selection of units from the population is based on easy availability and/or accessibility. Sekaran (2003) notes that the elements in the population have no probabilities attached to their being selected as sample subjects and that the sample comprises those population elements that can be studied with the greatest convenience. The advantage of this

is that subjects are chosen based on convenience, which is less costly in terms of money and time. A disadvantage Sekaran (2003) postulates is that this can introduce bias as some groups may be underrepresented.

#### 3.4 METHOD OF DATA COLLECTION

In this research study, three different questionnaires were used. They are the SSEIT, the GSE and a biographical questionnaire. According to Hague and Harris (1993), questionnaires are used to obtain facts and opinions about a phenomenon from people who are informed on the particular issue. Questionnaires are regarded as the most generally used instrument that can be applied in various ways. A well-designed questionnaire can provide the necessary data to address the research question (Hague & Harris, 1993).

The procedure involved contacting the principals of the respective primary schools telephonically. This was done in order to obtain permission to allow teachers to participate in the research study. The principals were provided with consent forms as well as a copy of the letter from the university requesting permission for teachers to participate in the study. The questionnaires were then hand delivered by the researcher for distribution by the principals, and a collection date was determined. A total of 150 questionnaires were distributed of which 90 were returned. The researcher collected the questionnaires within two weeks after delivery.

# 3.5 MEASURING INSTRUMENTS

This research study made use of questionnaires to quantitatively collect the necessary data. Firstly, a biographical questionnaire was administered. Two standardised tests, namely the SSEIT and the GSE, were also administered.

# 3.5.1 The Schutte Self-Report Emotional Intelligence Test

The SSEIT is referred to as the Assessing Emotions Scale or the Schutte Self-Report Inventory. It is a self-report measure of EI containing 33 items. The SSEIT focuses on average or usual EI. This is based on the results of a principal component analysis (Salovey & Mayer, 1990); researchers identified a strong one-factor or first-factor dimension for EI. Schutte et al. (1998), therefore, recommend using the scale as assessing one factor by totalling all 33 items on the SSEIT to obtain a one-factor/first-factor dimension for EI. The 33-item survey takes approximately 10 minutes to complete, using a five-point Likert scale, extending from 1 ("strongly disagree") to 5 ("strongly agree"). The total scales scores are computed by reverse coding items 5, 28 and 33 and then making a final summation of all items. High scores on all items collectively indicate high levels of EI (Alston, 2009).

# 3.5.1.1 Reliability and validity of the Schutte Self-Report Emotional Intelligence Test

The reliability of a measure refers to the consistency with which it measures what it is suppose to measure (Foxcroft & Roodt, 2007). The SSEIT has demonstrated high internal consistency. In a sample made up of community members, the scale was reported to have a Cronbach's alpha of 0.9, and for college students the Cronbach's alpha was reported to be 0.87 (Schutte et al., 1998). The SSEIT has also been reported to be fairly reliable for adults and adolescents (Ciarrochi, Chan & Bajgar, 2001). According to Murphy (2006), the SSEIT has been reported to have good test-retest reliability (r = 0.78) and group differences in scores and correlations. According to Foxcroft and Roodt (2007), test-retest reliability is an obvious method for determining the reliability of a measure to be administered twice to the same group of test takers.

The validity of a measure concerns what the test measures and how well it does so (Foxcroft & Roodt, 2007). According to Ciarrochi et al. (2001), the SSEIT is reported to have predicative validity. When used on adolescents, the scores on the SSEIT were meaningfully related to skill at identifying emotional expression, degree of social support, satisfaction with social support and mood management (Ciarrochi et al., 2001).

The rationale for the use of the SSEIT is that it is a reliable and valid instrument that assesses the way in which people typically deal with emotions in the workplace (Palmer & Stough, 2000, as cited in Alston, 2009). The SSEIT has been found to display positive and negative characteristics; however, a number of studies have indicated that the SSEIT displays sufficient reliability and validity in measuring self-report EI and can therefore be used with a reasonable certainty of obtaining meaningful results (Murphy, 2006).

# 3.5.2 General Self-Efficacy Scale UNIVERSITY of the

According to Schwarzer et al. (2002), the GSE consists of 10 items designed to determine an individual's belief whether or not he/she is able to accomplish new or difficult tasks. Each of the items touches on an individual's successful coping and entails an internal acknowledgement of success. Respondents are asked to rate each statement using a four-point rating scale (1 = "not at all true", 2 = "hardly true", 3 = "moderately true" and 4 = "very true") (Schwarzer et al., 2002).

# 3.5.2.1 Reliability and validity of the General Self-Efficacy Scale

According to Jerusalem and Schwarzer (1992), the GSE has been used in research studies in which the internal consistencies were between 0.75 and 0.90. In a study conducted on 140 teachers, a stability coefficient of r = 0.75 was yielded after one year (Schwarzer, Hahn &

Jerusalem, 1993). Another study conducted by Schwarzer et al. (2002) explored whether the GSE was a universal construct on 19 120 participants from 25 countries. In a sample from 23 countries, Cronbach's alphas ranged from 0.76 to 0.90 with the majority in the high 0.80s (Schwarzer et al., 2002).

According to Schwarzer et al. (2002), the GSE is not only reliable but it also has convergent and discriminant validity.

# 3.6 BIOGRAPHICAL QUESTIONNAIRE

A biographical questionnaire was used to solicit information on a respondent's gender, home language, race, age, number of years in the teaching profession and qualifications obtained.



Terre Blanche and Durrheim (1999) explain that data analysis issues should be carefully considered when designing a study, since the aim of data analysis is to transform information into data in order to answer the original research question. Data analysis procedures can be divided into quantitative and qualitative techniques. In this research study, quantitative techniques were employed. The Statistical Package for the Social Sciences (SPSS) computer program was used to analyse and compute the data. In scoring the SSEIT, items 5, 28 and 33 were reverse coded and the sums of the scales were added to provide a total EI score.

#### 3.7.2 Inferential statistics

In this study inferential statistics were used. According to Terre Blanche and Durrheim (1999), inferential statistics are used to draw conclusions about populations on the basis of data obtained from the samples. Inferential statistics were therefore used in this study to determine whether relationships between samples of data existed and whether a significant relationship existed (e.g. a relationship between EI and self-efficacy).

#### 3.7.3 The Pearson product moment correlation coefficient

The Pearson product moment correlation coefficient is the most frequently used measure of correlation. According to Leary (2004), the Pearson product moment correlation coefficient is a measurement that indicates the degree to which two variables are related to one another. When a direct positive relationship exists between variables, it is referred to as a positive correlation. The opposite is true when a negative relationship exists between two variables (Leary, 2004), In this study, the Pearson product moment correlation coefficient was used to correlate the sum of the EI and self-efficacy scores in order to determine whether a relationship existed between these two variables.

#### 3.7.4 T-test

The t-test is used to determine the significant differences between two samples such as groups and organisational level (Howell, 1997). According to Matheson, Bruce and Beauchamp (1974), t-tests are used with matched or independent two-group designs. T-tests allows for comparison of the means of two groups to analyse their unique differences based on the assumption that the two groups belong in the same population or two populations that

possess the same population mean (Mathesonet al., 1974). The difference in the levels of EI and self-efficacy based on biographical variables was determined using the t-test method.

#### 3.8 ETHICAL CONSIDERATIONS

The identity and interests of the participants involved were protected, as anonymity was assured to ensure minimal invasion of their privacy. Participation was voluntary and informed consent was obtained from participants to ensure that they explicitly expressed a willingness to participate. Permission was also requested from the principals of the various schools.

Only validated and reliable measuring instruments were used in this study to prevent any harm to participants. The parameters of confidentiality of the information supplied were explained; for example, all participants were informed on how the data would be recorded, shared and processed. The information obtained will be used strictly for academic research purposes.

#### **CHAPTER 4**

#### PRESENTATION OF RESULTS

#### 4.1 INTRODUCTION

This chapter presents the results obtained in the study. The aim of the chapter is to describe and summarise the statistical findings of the study based on the research hypotheses described in Chapter 1. The computed descriptive statistics are firstly presented as an outline of the characteristics of the sample with regard to the variables included in the study. The analyses of the constructs relevant to the study, namely EI and self-efficacy, will thereafter be presented by using inferential statistical procedures.

## **4.2 RESULTS**

# **4.2.1 Descriptive statistics**

Sekaran (2003) defines descriptive statistics as procedures used to summarise a set of data. According to Trochim and Donnelly (2006), descriptive statistics are used to describe the basic features of the data in a study. These statistics provide simple summaries of the sample and the measures. Together with simple graphics analysis, they form the basis of virtually every quantitative analysis of data (Trochim & Donnelly, 2006). The following sections provide a descriptive and visual analysis of the biographical variables of the study.

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# 4.2.2 Biographical questionnaire results

This section outlines the descriptive statistics graphically calculated on the basis of the variables included in the biographical questionnaire, which are as follows:

- Race of respondents
- Age of respondents
- Gender of respondents
- First language of respondents
- Qualification of respondents
- Grade that respondents taught
- Number of years teaching experience



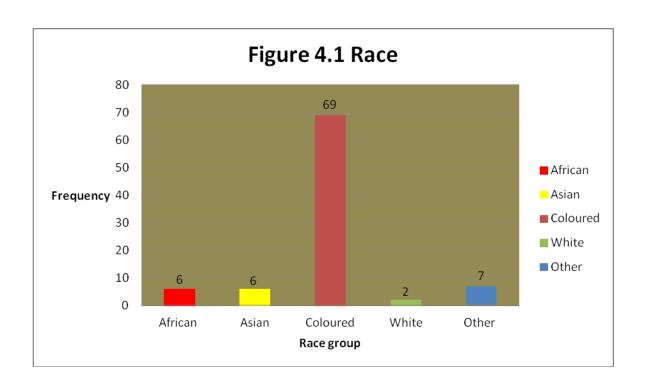


Figure 4.1: Race

Figure 4.1 illustrates that the majority of the respondents (77%; n = 69) were Coloured, 7% (n = 6) were African, 7% (n = 6) were Asian, 2% were White and 8% (n = 7) were classified as other racial groups.

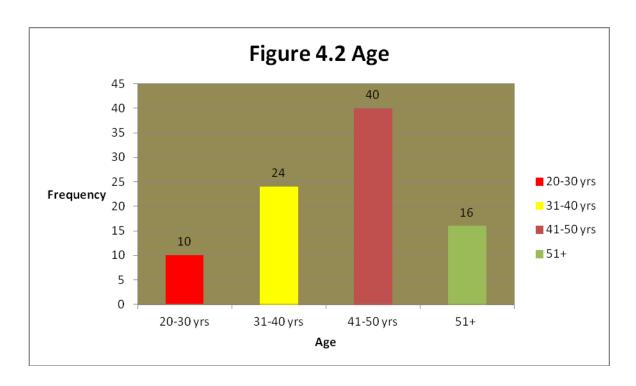


Figure 4.2: Age



Figure 4.2 depicts the age of the respondents. It illustrates that the majority of the respondents (44%; n = 40) were in the age group 41–50 years, 27% (n = 24) were in the age group 31–40, 18% (n = 16) were in the age group 51 years and older and 11% (n = 10) were in the age group 20–30 years.

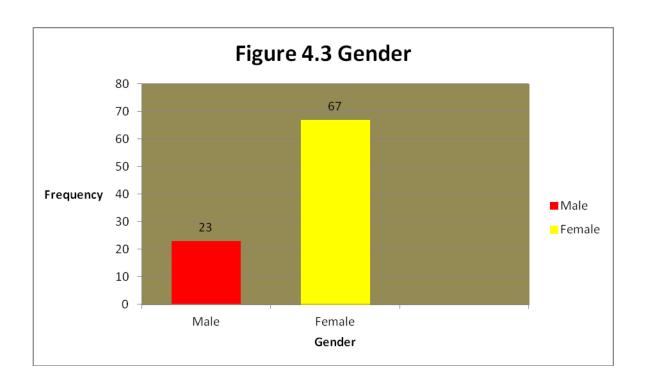


Figure 4.3: Gender

Figure 4.3 depicts the gender distribution of the respondents; 74% (n = 67) were women and 26% (n = 23) were men, indicating a majority of female respondents.

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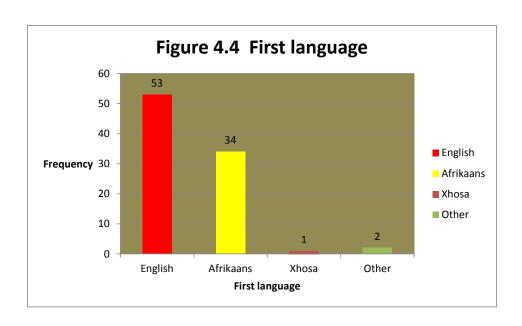


Figure 4.4: First language

Figure 4.4 illustrates the first language of the respondents. The majority of the respondents indicated their first language to be English (59%; n = 53), followed by Afrikaans (38%; n = 34) and Xhosa (1%; n = 1). Some respondents listed their home language as "other" (2%; n = 2).

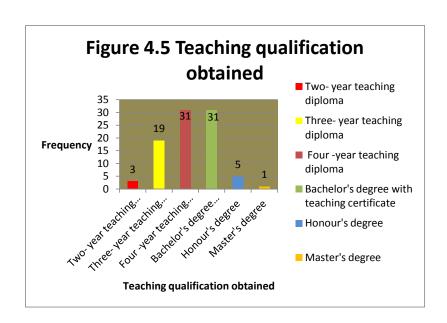


Figure 4.5: Teaching qualification obtained

The respondents' teaching qualifications are depicted in Figure 4.5, which indicates that 34% (n = 31) had a bachelor's degree, 34% (n = 31) had a four-year teaching diploma, 21% (n = 19) had a three-year teaching diploma, 6% (n = 5) had an honours degree, 3% (n = 3) had a two-year teaching diploma and only one respondent (1%) reported having a master's degree.

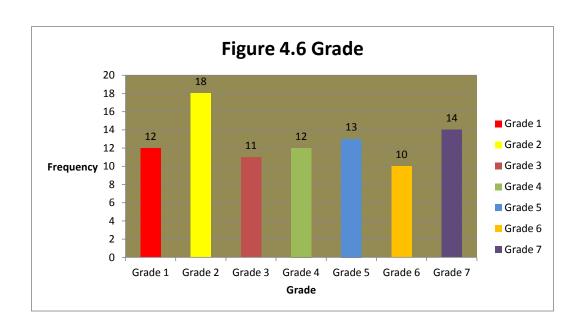


Figure 4.6: Grades that respondents taught

Figure 4.6 indicates that 20% of the respondents (n=18) taught Grade 2, 15.6% (n=14) taught Grade 7, 14.4% (n=13) taught Grade 5, the same number of respondents taught Grade 1 and Grade 4 (13.3%; n=12), 12.2% (n=11) taught Grade 3 and 11.1% (n=10) taught Grade 6.

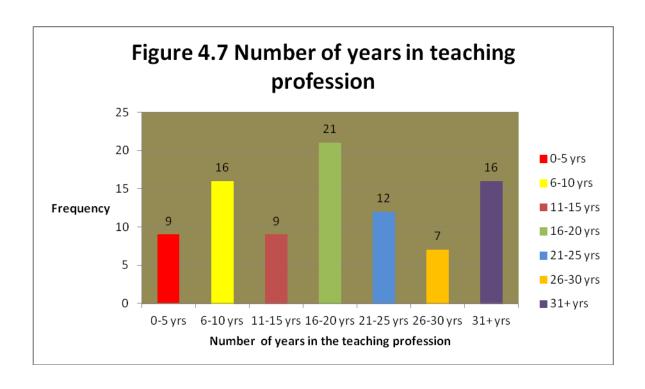


Figure 4.7: Number of years in teaching profession

In Figure 4.7 the respondents' years of teaching experience is depicted. The majority of the respondents (23.3%; n = 21) had 16–20 years experience, 17.8% (n = 16) had 6–10 years experience, the same number had 31 years and more experience, 13.3% (n = 12) had 21–25 years experience, 10% (n = 9) had 0–5 years experience, which was the same for respondents with 11–15 years experience, and 7.8% (n = 7) had 26–30 years experience.

#### 4.3 INFERENTIAL STATISTICS

Trochim and Donnelly (2006) explain that unlike descriptive statistics, inferential statistics are used to draw conclusions and make predictions based on the descriptions of data. Inferential statistics are used mainly to estimate the value of population parameters and hypothesis testing. The inferential statistics for this study were computed on SPSS for hypothesis testing.

#### 4.4 RELIABILITY ANALYSIS

According to Gliem and Gliem (2003), Cronbach's alpha is a test-retest reliability technique. It requires only a single test administration to provide a unique estimate of the reliability of a given test. Cronbach's alpha reliability coefficient normally ranges between zero and one. However, there is actually no lower limit to the coefficient. The closer Cronbach's coefficient alpha is to one, the greater the internal consistency of the items in the scale is (Gliem & Gliem, 2003). Table 4.1 illustrates the commonly accepted rule of thumb for describing internal consistency using Cronbach's alpha.

Table 4.1: Internal consistency using Cronbach's alpha

Cronbach's alpha	Internal
	consistency
$\alpha \ge 0.9$	Excellent
$0.8 \le \alpha < 0.9$	Good
$0.7 \le \alpha < 0.8$	Acceptable
$0.6 \le \alpha < 0.7$	Questionable
$0.5 \le \alpha < 0.6$	Poor
$\alpha < 0.5$	Unacceptable

Source: George & Mallery, 2003, p. 123

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## Hypothesis 1

There is no statistically significant relationship between EI and self-efficacy.

Table 4.2: Relationship between emotional intelligence and self-efficacy

		<b>Emotional intelligence</b>	Self-efficacy
Emotional intelligence	Pearson correlation	1	0.474**
	Significance (two-		0.000
	tailed)		
	N	90	90
Self-efficacy	Pearson UNIVERS correlation	0.474** ITY of the ICAPE	1
	Sig. (two-tailed)	0.000	
	N	90	90

<sup>\*\*</sup> Correlation is significant at the 0.01 level (two-tailed).

Table 4.2 indicates the relationship between EI and self-efficacy. The results indicate that there is a moderate positive significant relationship between total EI and total self-efficacy (r = 0.474, r = 90, p < 0.01). Therefore, hypothesis 1 is rejected.

# Hypothesis 2

There is no statistically significant difference in levels of EI based on age, race and gender.

Table 4.3: Emotional intelligence based on age, race and gender

Null hypothesis	Test	Sig	Decision
The distribution of EI totals	Independent	0.741	Retain the null
the same across categories of	samples-		hypothesis.
age.	Mann-Whitney U-Test		
The distribution of EI totals	Independent	0.684	Retain the null
the same across categories of	samples-		hypothesis.
race.	Mann-Whitney U-Test		
The distribution of EI totals	Independent	0.321	Retain the null
the same across categories of	samples-		hypothesis.
gender.	Mann-Whitney	CAPE	
	U-Test		

Asymptotic significances are displayed. The significance level is 0.05.

Table 4.3 illustrates that the EI levels indicated no statistically significant differences based on age, race and gender in this research study. Therefore, null hypothesis 2 is accepted.

## **Hypothesis 3**

There is no statistically significant difference in levels of self-efficacy based on age, race and gender.

Table 4.4: Self-efficacy based on age, race and gender

Null hypotheses	Test	Sig	Decision
The distribution of self-	Independent	0.202	Retain the null
efficacy totals the same across	samples –		hypothesis.
categories of age.	Mann-Whitney		
	U-Test		
The distribution of self-	Independent	0.521	Retain the null
efficacy totals the same across	samples –		hypothesis.
categories of race.	Mann-Whitney	T T	
	U-Test		
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
The distribution of self-	Independent	0.364 he	Retain the null
efficacy totals the same across	samples	CAPE	hypothesis.
categories of gender.	Mann-Whitney		
	U-Test		

The Mann-Whitney U-Test is a nonparametric test that is used to determine whether a difference exists between two groups, which is ideally dependent on random selection of subjects into their respective groups (MacFarland, 1998). Table 4.4 indicates that self-efficacy levels indicated no statistically significant differences based on age, race and gender. Therefore, null hypothesis 3 is accepted.

Table 4.5: Cronbach's coefficient alpha

Measuring instruments	Cronbach's alpha	Number of items
SSEIT	0.880	33
GSE	0.783	10

Table 4.5 illustrates the Cronbach's coefficient alpha calculated in order to determine the reliability of the instruments used to measure the EI and self-efficacy levels of the respondents. The results indicate that the SSEIT is a reliable instrument as the coefficient alpha is 0.880 and is considered good, as indicated in Table 4.5. The GSE coefficient alpha is 0.783, which is reliable and considered acceptable.

#### 4.5 CONCLUSION

The results of the study indicate that there is a statistically significant relationship between EI and self-efficacy. However, this is not the case for the EI and self-efficacy levels of the respondents based on age, race and gender. The next chapter will present a discussion of the findings obtained in this study and compare it to other research conducted in this field.

#### **CHAPTER 5**

# DISCUSSION OF RESULTS, RECOMMENDATIONS, LIMITATIONS AND CONCLUSION

#### **5.1 INTRODUCTION**

This chapter will explore the findings of the research with regard to the relationship between EI and self-efficacy amongst primary school teachers in the Western Cape. In order to better understand the research findings, comparisons will be made with existing research on EI and self-efficacy. Thereafter conclusions will be drawn from the research to provide recommendations for future research.

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# 5.2 DISCUSSION OF RESULTS VESTERN CAPE

#### 5.2.1 Relationship between emotional intelligence and self-efficacy

The results of this research study indicate that there is a significant relationship between EI and self-efficacy in primary school teachers. The findings of this research are supported by Fabio and Palazzeschi (2008) who also found a link between EI and self-efficacy beliefs in teachers. The study found that it could be hypothesised that EI might increase the self-efficacy beliefs of teachers and that teacher self-efficacy could promote the development of EI.

Salami (2007) conducted a study in which the purpose of the research was to examine the extent to which EI and self-efficacy were related to work attitudes amongst secondary school

teachers. The results indicated that teachers who had high EI and high self-efficacy developed more emotional commitment to their organisations and were also more committed to their careers.

Salami (2007) explains that these results might be due to the fact that emotionally intelligent teachers are more able to recognise, manage and use their emotions to eliminate obstacles and advance their careers than those with low EI. They are also likely to be able to cope better with the job demands, frustrations and stress involved in teaching. Similarly, a study on 89 Iranian teachers conducted by Moafian and Ghanizadeh (2009) revealed that there was a significant positive relationship between the EI and self-efficacy of teachers.

#### 5.3 EMOTIONAL INTELLIGENCE AND BIOGRAPHICAL VARIABLES

### 5.3.1 Emotional intelligence and age

The current study indicates that there is no statistically significant relationship between age and the EI of primary school teachers in the Western Cape.

A study conducted by Penrose et al. (2007) investigated the relationship between EI and teacher self-efficacy and the extent to which the relationship was influenced by gender, age and teaching experience. The results of the study suggested that gender, age and teaching experience had no influence on EI. This is supported by a similar study conducted by Fabio and Palazzeschi (2008) regarding the EI of teachers; the results did not show any significant impact on the EI of teachers based on age.

According to Shipley, Jackson and Segrest (2010), further studies are needed to expand upon the relationship between EI and age. One such study that took into account a broad range of ages found an interesting relationship between EI and age (Derksen, Kramer & Katzko, 2002). The authors examined the relationship between EI and age using a sample of 873 subjects ranging in age from 19 to 84 years, with a mean age of 50.74 years. The study found that EI peaked in the 35–44 age group and then decreased with advancing age.

#### 5.3.2 Emotional intelligence and gender

The present study found no statistically significant relationship between gender and the EI of teachers. Fabio and Palezzechi's (2008) study also found no statistically significant relationship between the EI levels of teachers based on their gender. However, according to studies conducted by Ciarrochi et al. (2001) and Van Rooy, Alonso and Viswensvaran (2005), differences in EI levels based on gender were found in students.

Chan (2007) asserts that research findings provide no support for the supposition that female teachers generally achieve a higher level of EI than male teachers, globally and in perceiving emotions, regulating emotions, sensitivity to others' emotions and utilising emotions. Nonetheless, the fact that women might underestimate their competence or that men might overestimate theirs or both could not be ruled out. It is not clear whether there were no real gender differences or whether the real gender differences could not be detected by the self-report on EI in the present study. Therefore, further studies would need to be conducted.

#### 5.3.3 Emotional intelligence and race

This study found no evidence of a significant relationship between EI and race. Research on EI and race is sparse; this is supported by Fischer, Manstead and Mosquera (1999) who state that although no studies have been conducted on EI and race, cross-cultural studies of

emotion have provided evidence for both similarities and differences among cultures. However, according to Zawawi and Tsang (2009), who conducted a study on EI, the results showed race to be significantly correlated with EI.

#### 5.4 SELF-EFFICACY AND BIOGRAPHICAL VARIABLES

#### **5.4.1** Self-efficacy and age

The results of this study indicate no significant relationship between self-efficacy and age. However, Moafin and Ghanizadeh (2005) found a positive significant relationship between self-efficacy and age based on a study conducted on Iranian teachers. The study results suggest that the older teachers are, the higher their sense of self-efficacy is. This is in contrast to the belief of Bandura (1994) who postulates that age does not correlate with self-efficacy. The reason for this is that there are many pathways through life and at any given period people vary substantially in how efficaciously they manage their lives (Bandura, 1994). However, Coladarci and Breton's (1997) study found a weak but significant positive correlation between age and personal teaching efficacy.

Imants and De Brabander (1996), as cited in Moafin and Ghanizadeh, (2005) also assert that among the factors influencing teacher self-efficacy, age does not seem to play any significant role.

#### 5.4.2 Self-efficacy and gender

The findings of this study suggest that there is no significant relationship between the self-efficacy levels of teachers and gender. This is supported by a study conducted on self-efficacy and perceived transformational leadership by Felfe and Schyns (2002). The results of the study indicated no correlation between self-efficacy and gender.

Contrary to this finding, Klassen and Chiu's (2010) study on teacher self-efficacy found that a teacher's gender, years of experience, school type, teaching grade and sources of stress were linked to his/her classroom management self-efficacy. The study reported that female teachers had better classroom management self-efficacy than male teachers.

#### **5.4.3** Self-efficacy and race

In the present study there is no significant relationship between self-efficacy and race. This view is supported by Felfe and Schyns (2002) who report that there is no significant relationship between self-efficacy and race.

However, Buchanan and Selmon (2008) found that African-American women had a higher sense of self-efficacy than African-American men. Research is varied in terms of the impact that race has on self-efficacy. Okech and Harrington (2002) also found a positive relationship between racial identity and academic self-efficacy in students.

#### 5.5 LIMITATIONS OF THE STUDY

One of the major limitations of this study is the use of the non-probability sampling method. While this method is considered the quickest and least time consuming, a probability sampling method would be preferred given an extended time frame.

Due to the small sample size and because participants were accessed from a selected few schools in Cape Town, the findings from the study cannot be confidently generalised to the population of all teachers in the Western Cape.

There are many other variables not necessarily related to EI that could possibly have an effect on self-efficacy. This study limited itself to only a few selected variables.

All data were collected using questionnaires only; no other methods or instruments of data collection were used. Although data triangulation was achieved by having participants complete two separate instruments (SSEIT and GSE), all of the data are from the same respondents and no repeat measures were taken. Lastly, both instruments are self-report versions, which might have skewed or compromised the results of the investigation because participants might have given socially desirable responses.

#### 5.6 RECOMMENDATIONS



In future, a study of this nature should consider implementing probability sampling. Research indicates that using probability sampling whereby "elements in the population have a known chance of being chosen in the sample" (Sekaran, 2000, p. 271) is the preferred sampling method. Future studies must consider using complementary methodologies to enhance the data collected. One-on-one interviews would have added value to this kind of study.

Research suggests that it is possible that enhancing a teacher's EI may have a positive influence on his/her sense of self-efficacy. This in turn may lead to improved student achievement since a strong sense of self-efficacy is associated with important outcomes, such as student learning and teacher effectiveness. Therefore, it is recommended that training programmes and workshops that focus on the skills associated with EI be developed for teachers.

The construct of EI could be explored with other constructs such as psychological well-being in order to assist teachers to cope better with the demands of their jobs. 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 suggests that 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 (Brink, 2009).

#### 5.7 CONCLUSION

This study found that a relationship did exist between the EI and self-efficacy levels of primary school teachers in the Western Cape. However, no significant relationship was found to exist between the EI levels of primary school teachers and their race, age and gender. Furthermore, no significant relationship was found to exist between the self-efficacy levels of primary school teachers and their age, race and gender.

Research on EI suggests that emotionally intelligent teachers are better equipped to recognise, manage and use their emotions to eliminate obstacles and advance their careers than those with low EI. They are also likely to be able to cope better with the job demands, frustrations and stress involved in teaching. Hence they are able to develop high commitment to their careers and organisations (Salami, 2007). Research suggests a link between higher EI and higher self-efficacy of teachers. This results in improved classroom management, improved motivation and participation of students, and better teaching strategies (Fabio & Palezzesch, 2008).

According to Moafian and Ghanzadeh (2009), enhancing a teacher's EI will have a positive influence on his/her sense of self-efficacy. Teachers with a high sense of self-efficacy are better able to motivate students, hence leading to successful student achievement. It is reported by Tschannen-Moran and Woolfolk-Hoy (2001) that previous studies have shown that self-efficacy in teachers is important in shaping students' attitudes toward the way they feel about school and subject matter.

Teachers' sense of self-efficacy is important. Bandura (1994) explains that teachers who believe strongly in their ability to promote learning create optimal learning experiences for their students. Furthermore, teachers who have doubts about their own instructional efficacy are likely to undermine students' judgements of their abilities and their cognitive development.

In summation, the key finding of this study suggests that there is no significant relationship between the EI and self-efficacy of teachers and their demographic profile. Consistent with theoretical and empirical research by Penrose et al. (2007) and Tschannen-Moran and Woolfolk-Hoy (2001), the present study demonstrates that neither gender nor age nor race is significantly related to the self-efficacy and EI levels of teachers. This study enriches the literature regarding teachers' EI and self-efficacy by exploring the existence and extent of the relationship between these two variables

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Dear Participant,

REQUEST TO ASSIST IN A MASTERS RESEARCH PROJECT

I am a Masters student at the University of the Western Cape, conducting research for my thesis on

the relationship between emotional intelligence and self efficacy in teachers. I hereby request your

assistance to conduct my research.

Emotional intelligence refers to a subset of social intelligence that involves the ability to monitor

one's own and other's feelings and emotions, to discriminate among them and to use this information

to guide one's thinking and actions.

Self –efficacy refers to an individual's belief in his/her ability to cope with a specific task.

In order to gain further insight into the relationship that exists between the above personality

characteristics, I will need your assistance in completing two personality questionnaires. This will

take approximately 20 minutes of your time.

Please note, that these are personality questionnaires, there is no wrong or right answers as these are

your views and opinions.

Please be assured that your responses will be held in the strictest of confidence. For this very reason

you will not be requested to write your name down on the questionnaire. Also be assured that no one

will have access to this information. Once you have completed your questionnaire please place it into

the envelope provided.

Thank you for your willingness to assist in this research

Sincerely

Shameema Matthews

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#### **SSEIT**

#### The Assessing Emotional Intelligence Questionnaire

**Directions:** Each of the following items asks you about your emotions or reactions associated with emotions. After deciding whether a statement is generally true for you, use the 5-point scale to respond to the statement. Please circle the "1" if you strongly disagree that this is like you, the "2" if you somewhat disagree that this is like you, "3" if you neither agree nor disagree that this is like you, the "4" if you somewhat agree that this is like you, and the "5" if you strongly agree that this is like you.

There are no right or wrong answers. Please circle the response that best describes you.

1= strongly agree

2= somewhat disagree

3= neither agree or disagree

4= somewhat agree

5= strongly agree

		_				
1.	I know when to speak about my personal problems to others.	1			4	
2.	When I am faced with obstacles, I remember times I faced similar	1	2	3	4	5
	obstacles and overcame them.					
3.	I expect that I will do well on most things I try.	1			4	
4.	Other people find it easy to confide in me.	1	2	3	4	5
5.	I find it hard to understand the non-verbal messages of other	1	2	3	4	5
	people.					
6.	Some of the major events in my life have led me to re-evaluate	1	2	3	4	5
	what is important and not important.					
7.	When my mood changes, I see new possibilities	1	2	3	4	5
8.	Emotions are one of the things that make life worth living.	1	2	3	4	5
9.	I am aware of my emotions as I experience them.	1	2	3	4	5
10.	I expect good things to happen.	1	2	3	4	5
11.	I like to share my emotions with others.	1	2	3	4	5
12.	When I experience a positive emotion, I know how to make it last.	1	2	3	4	5
13.	I arrange events others enjoy.	1	2	3	4	5
14.	I seek activities that make me happy.	1	2	3	4	5
15.	I am aware of the non-verbal messages I send to others.	1	2	3	4	5
16.	I present myself in a way that makes a good impression on others.	1	2	3	4	5
17.	When I am in a positive mood, solving problems is easy for me.	1	2	3	4	5
18.	By looking at their facial expressions, I recognise emotions people	1	2	3	4	5
	are experiencing.					
19.	I know why my emotions change.	1	2	3	4	5
20.	When I am in a positive mood, I am able to come up with new	1	2	3	4	5
	ideas.					
21.	I have control over my emotions.	1	2	3	4	5
22.	I easily recognise my emotions as I experience them.	1	2	3	4	5

23.	I motivate myself my imagining a good outcome to the tasks I take	1	2	3	4	5
	on.					
24.	I compliment others when they have done something well.	1	2	3	4	5
25.	I am aware of non-verbal messages other people send.	1	2	3	4	5
26.	When another person tells me about an important event in his or	1	2	3	4	5
	her life, I almost feel as though I experienced the event myself.					
27.	When I feel a change in emotions, I tend to come up with new	1	2	3	4	5
	ideas.					
28.	When I am faced with a challenge, I give up because I believe I will	1	2	3	4	5
	fail.					
29.	I know what other people are feeling just by looking at them.	1	2	3	4	5
30.	I help other people when they feel down.	1	2	3	4	5
31.	I use good moods to help myself keep trying in the face obstacles.	1	2	3	4	5
32.	I can tell how people are feeling by listening to the tone of their	1	2	3	4	5
	voice.					
33.	It is difficult for me to understand why people feel the way they do.	1	2	3	4	5



# **APPENDIX 3**



#### **GENERAL PERCEIVED SELF-EFFICACY SCALE**

**INSTRUCTIONS:** The following statements concern attitudes and feelings you might have about yourself and your performance on a variety of tasks. Circle the letter beneath the answer that best describes your own opinions. Work quickly and give your first impression.

STATEMENT	Not at all true	Hardly true	Moderately true	Exactly true
I. I can always manage to solve difficult problems if I try	1	2	3	4
hard enough.	_	_		-
2. If someone opposes me, I can find means and whys to get what I want	1	2	3	4
3. It is easy for me to stick to my aims and accomplish my goals.	1	2	3	4
4. I am confident that I could deal efficiently with unexpected events.	1	2	3	4
5. Thanks to my resourcefulness, I know how to handle unforeseen situations.	11 11	2	3	4
6. I can resolve most problems if I invest the necessary effort.	1	2	3	4
7. I can remain calm when facing difficulties because I rely on my coping abilities.	1 ΓΥ of the	2	3	4
8. When I am confronted with a problem, I usually find R N several solutions.	CAPE	2	3	4
9. If I am in trouble, I can usually think of a solution.	1	2	3	4
10. I can usually handle what comes my way.	1	2	3	4