

# THE EFFECT OF TRAINING AND DEVELOPMENT ON THE EMOTIONAL INTELLIGENCE OF LEADERS ACROSS INDUSTRIES

by

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#### **ABSTRACT**

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#### Introduction

Emotional intelligence plays a vital role in all areas of both personal and work life. To determine whether training and development has an effect on the level of Emotional Intelligence (EI) of leaders is therefore of utmost importance.

#### Research purpose

The purpose of the study is to investigate the effect of EI training and development programmes on leaders across industries.

#### **Motivation for the study**

The motivation for this study is to determine whether EI training does have an effect on the participating managers within various industries and is thereby showing a return on investment.

#### Research design, approach and method

The purpose of the study is explanatory in nature. A pre-experimental research design was adopted through the use of a one-group pre-test and post-test design. This design resulted in quantifiable data that was compared across industries.

The data was collected through a quantitative, 360 degree Questionnaire used in practice.



#### Main findings

El training does have a positive and significant effect on the participants in the study. Significant changes occurred across the participants' average El scores on all the instrument's nine items as well as the overall El score. Results showed a significant increase in El skills across all industries. What was interesting in the results were the significantly different industry average El scores before and after the training intervention. However, despite those significant baseline differences the study found no significant difference in the positive increase of the participating managers' overall El scores.

#### **Future research / Limitations**

Future studies could determine whether a difference might exist between the level of EI of males and females. In order to overcome the sample limitation it would be beneficial to obtain a larger sample with the inclusion of more industries for comparison purposes. The use of a control group, a registered instrument and more statistically advanced techniques could also be considered in future.

#### Conclusion

Results showed that in the current study, EI can be increased across industries regardless of the EI baseline the individuals started with before the training intervention. This ultimately results in a return on investment for the organisation's monetary investment in EI training as an intervention.

**Key words** Emotional Intelligence, Training and Development, Leadership



#### **DECLARATION**

I, Miché Newton, declare that the Effect of Training and Development on the Emotional Intelligence of Leaders across Industries is my own unaided work both in content and execution. All the resources I used in this study are cited and referred to in the reference list by means of a comprehensive referencing system. Apart from the normal guidance from my study leaders, I have received no assistance, except as stated in the acknowledgements.

I declare that the content of this thesis has never been used before for any qualification at any tertiary institution.

I, Miché Newton, declare that the language in this thesis was edited by Maurine Fischer.

Miché Newton	Date: 30 September 2016
Signature	



#### **ACKNOWLEDGMENTS**

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Lastly, thank you to my Supervisor Mr Themba who gave up Friday afternoons and many days of reading through my very rough drafts to help me reach my goal. You are such a blessing.

Without all of you this would not have been possible.

#### ~ Eph 3:20-21~

Now to Him who is able to do exceedingly abundantly above all that we ask or think, according to the power that works in us, to Him be glory in the church by Christ Jesus to all generations, forever and ever. Amen.



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# THE EFFECT OF TRAINING AND DEVELOPMENT ON THE EMOTIONAL INTELLIGENCE OF LEADERS ACROSS INDUSTRIES

#### **CHAPTER 1: INTRODUCTION AND BACKGROUND**

Emotional intelligence plays a vital role in all areas of both personal and work life (Carmeli, 2003; Fernandez, Noble, Jensen, & Steffen, 2015; Mayer, Roberts, & Barsade, 2008; Prati, Douglas, Ferris, Ammeter, & Buckley, 2003; Salovey & Grewal, 2005). To determine whether training and development has an effect on the level of Emotional Intelligence (EI) of leaders is therefore of utmost importance. According to the Customer Service Professionals Network (2014) 58% of a company's bottom line is based on the level of employees' EI, this makes understanding and measuring the effect that EI training has on leaders in management a significant issue. When the performance levels of exceptional and mediocre managers were compared, approximately 90% of the difference in success rate of the exceptional good leader group was linked to emotional intelligence (Goleman, 2004).

Intelligence Quotient as well as EI has been defined in various ways by several individuals (Cherniss, 2000; McPheat, 2011). The importance of EI is crucial at both an organisational and individual level (Goleman, 2004) especially for leaders within an organisation and possible financial gains of EI are evident within the organisation setting (Cherniss, 1999). EI is seen to have a significant impact in determining whether an individual will be successful. It is also important to determine the degree to which EI is needed in the day to day effective functioning of employees, as individuals as well as in the greater scope of the organisation as a whole. EI theoretically impacts profitability as well as employee job satisfaction, intra- and interpersonal relationships and many other aspects of work like time management. EI is very complex and encompasses many intricate concepts that each individually contribute to the theory and definition of EI as a whole. However, there is a need to be able to measure the actual effectiveness of training and development interventions conducted around EI. A study by Fernandez et al. (2015) found that amongst others, EI was a core skill needed by leaders. Furthermore, EI training and development is



essential for leaders in order to perform their work effectively as well as reach set targets and outcomes (Sánchez-Núñez, Patti, & Holzer, 2015).

#### 1.1 PROBLEM STATEMENT

In order to investigate issues or improve on situations in society, problem statements aim to identify what problems exist, why and how they will go about addressing the situation to further knowledge for the benefit of research in the field as well as in practice. According to Durning and Carline (2015), a problem statement briefly explains the existing problem, and how the study could address the problem.

Numerous studies have been conducted on the importance of EI and the role it plays (Carmeli, 2003; Fernandez *et al.*, 2015; Mayer *et al.*, 2008; Prati *et al.*, 2003; Salovey and Grewal, 2005). However, there is a need for further empirical evidence or research studies that measure the effect of EI training and development programmes on leaders. Furthermore, there is a limitation on studies that measure the effect of EI training and development on leaders across industries, especially within the South African context. The question therefore is what effect does EI training and development programmes have on leaders across industries? It is thus the intention of this study to investigate the effect of EI training and development programmes on leaders across industries. Companies spend vast amounts of resources on training each year, with little evidence to support the effect EI training has on leaders.

#### 1.2 PURPOSE STATEMENT

The purpose of the study is to investigate the effect of EI training and development programmes on leaders across industries.

#### 1.3 RESEARCH OBJECTIVES

The following research objectives will guide the study:



- To conceptualise the effect of EI training and development of leaders across industries from a theoretical perspective.
- To determine the level of EI in a sample of leaders before a training and development intervention.
- To determine the level of EI in a sample of leaders after a training and development intervention.
- To determine the effect that the EI training and development intervention had on the sample of leaders.
- To conduct a comparison of the outcome of the EI training and development intervention across industries.

#### 1.4 ACADEMIC VALUE AND INTENDED CONTRIBUTION OF THE STUDY

This study aims to add value within the field of Industrial and Organisational Psychology and other related fields by addressing the effect EI training and development has on leadership. This study intends to contribute on a theoretical as well as on a practical level. Theoretically the study aims to contribute by addressing the limitations in the literature on the effect of EI training and development and addressing it across industries. Empirical evidence will be provided by the study to address the specific question on whether EI training and development has a significant effect on leaders across industries.

From a practical perspective through conceptualising EI and determining the degree of effectiveness of EI training interventions within management and leadership positions, the results obtained will provide insight into the quantifiable value of EI training and development. Globally, companies spend billions on improving the managerial skills of management within the organisation. As Goleman (2004) attributes success of leaders to EI, it would be extremely valuable to obtain data, especially within the South African context, to support this view. By obtaining this data, top management can more readily be convinced of the importance of EI. Top management should not only focus on the technical aspects of performance and training, but emphasise the need for soft skills such as EI, which has a significant impact as well as the return on investment as a by-product. Leadership training and development programmes can also be enhanced by placing more emphasis on EI within the course work of the various related programmes.

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**CHAPTER 2: LITERATURE REVIEW** 

2.1 INTRODUCTION

Chapter will focus on conceptualising the topic of EI based on the existing research and

other relevant sources available related to the study. The concept of EI, the different

models, the role and importance of El training as well as trend in El are discussed.

2.2 MEANING AND THEORETICAL PERSPECTIVES OF EI

Goleman is well-known for introducing the concept of Emotional Intelligence (EI) in 1995.

Since then much research has been done on the topic with new definitions and theories

that have emerged as a result of this. It is widely accepted that EI is directly linked to

performance and therefore is critical for the individual as well as the organisation

(Goleman, 2004). This is why it should form part of soft skill leadership training and

development programmes.

To better understand the core role El plays in the success of leaders as well as the

organisations they work for (Fernandez et al., 2015) it is important to understand the

meaning of EI as a concept and how the perspectives and models have evolved over time.

This chapter will also briefly cover the nature versus nature debate, the different elements

of EI and conclude with themes and trends in the field of EI.

2.2.1 Emotional intelligence

Our individual level of EI impacts the way we see the world, our individual functioning as

well as our responses when interacting with others. It can be seen as the regulator to our

emotional responses both internally and externally. Contrary to what EI researchers claim

Thorndike (1920; Mayer & Geher, 1996; Mayer & Salovey, 1993), the first mention of El

was not Thorndike in 1920, but in 1909 by Dewey, it was however referred to as social

intelligence Landy (2006). Much has changed since and it is therefore important to

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understand what EI means and how the concept has evolved over time, before exploring EI training and development further.

Emotional intelligence as a component of soft skill training will be one of the main focus areas for the purpose of this paper. Emotional intelligence refers to having insight into one's own emotions and being able to manage these emotions effectively. This emotional management is needed to ultimately manage and control intra- as well as interpersonal interactions within and outside of the work environment. El therefore focuses on the management of own and others' emotions. However, for the purpose of being comprehensive, but not exhaustive it is beneficial to look at a few formal definitions of El:

Within Ruiz--Aranda, Salguero, Cabello, Palomera, and Fernández-Berrocal (2012, p1374) the definition of Mayer and Salovey from 1997 was that EI "is defined as a set of abilities used to perceive, use, understand, and manage emotions".

Wong, Wong, and Peng (2010) provided definitions from authors which can be summaries and define EI as the skill of observing own and others' emotions and feelings and the ability to use the obtained information to direct one's own resulting actions and thinking. Wong et al. (2010) suggests that an agreement has now been reached that EI should consist of the skill of an individual to deal with emotions. Four dimensions are proposed by the study. The first dimension is the individual' ability to express and understand their emotions. Secondly, the individuals' skill to identify and understand the emotions of others is found to be important. Thirdly, the individuals' skill of being able to manage their own emotions when different moods are experienced was found. Finally, it was found that the skill of harnessing emotion in order to achieve productivity or performance was an important dimension.

Stoller, Taylor, and Farver (2013) suggest that a higher level of EI results in a differentiating factor between mediocre and excellent leaders. EI is seen here as the skill of understanding and managing oneself as well as others within interactions with others. Another interesting definition mentioned here is the ability to reason about emotion and utilise it as a growth tool, this definition was also mentioned in the study by Sadri (2013). Goleman's 1995 definition emphasises the importance of perseverance, mood regulation



and motivation as abilities that form part of EI (Sadri, 2012). EI can be seen as the skill of identifying and managing own and others' feelings and emotions, to use this information as a guide to thinking and actions which could result in a problem being solved (Crombie, Lombard, & Noakes, 2011).

Salovey *et al.* (2002), also elude to EI as an ability to process emotional information in a way that informs an individual's thinking processes such as problem-solving in a way that concentrates an individuals energy on the necessary behaviours required.

Clarke (2010) draws attention to the fact that since the emergence of EI some confusion has resulted due to the use of different models and definitions being used by researchers. Even though EI is the umbrella term applicable to various models, each model has its own unique view on what EI should consist of. Goleman's model consists of five competencies, namely self-awareness; self-regulation; motivation; empathy and social skills (Sadri, 2012). The more recent ability model of EI has been found to relate directly to work situations or competences, for example the ability to make decisions or negotiate (Clarke, 2010).

#### 2.2.2 Emotional intelligence approaches

According to Fernández-berrocal and Extremera (2006) at present, three theoretical approaches exist that are recognised by the scientific community, namely: the EI ability model by Mayer and Salovey (1997); (Brackett & Salovey, 2006), the emotional competencies or mixed model focused on the workplace (Goleman, 1998; 2001; Boyatzis, 2006) and Bar-On's Emotional-Social Intelligence (ESI) model (1997; Bar-On, 2006), focusing only on the first two models.

El from the ability model perspective was initially defined by Salovey and Mayer as, the ability to process one's own and others' emotions in such a way that both gain value from problem solving and decision making (Mayer & Salovey, 1997; Nel *et al.*, 2015; Salovey & Mayer, 1990). The ability model is still used today with the most popular ability measure being the Mayer Salovey Caruso Emotional Intelligence Test (MSCEIT) (Mayer, Salovey & Caruso, 2002).



The trait or mixed model approach was for the most part based on the work of Bar-On. Bar-On stated that social and emotional intelligence consists of many interrelated personal, social and emotional abilities and factors. These abilities and factors affect our ability to successfully handle everyday situations and stressors (Bar-On, 1997).

However, the general acceptance of and growth around the concept EI occurred through Goleman (1995; 1998). The mixed model approach usually makes use of self-report instruments that measure a combination of cognitive, personality and affective attributes (Papadogiannis, Logan & Sitarenios, 2009).

In recent years the active debate on the relevance and value of the two models has continued. Academic literature has made very useful contributions to the ongoing debate, with both approaches having support for different reasons. The ability model supporters maintain that these models and instruments are psychometrically independent and scientifically derived and based on other personality measures (Mayer & Salovey, 1997; Salovey & Mayer, 1990). The mixed model supporters in contrast maintain that their approach is very relevant and linked to organisational results and can therefore be of great value to a company and its leadership development (Emmerling & Goleman, 2003; Goleman, 1995, 1998).

Additional to the discussion surrounding the suitability of various models of emotional intelligence, a second argument has concentrated on the operationalisation of EI as a construct itself. The use of performance-based measures of emotional intelligence has been argued to be better when it is viewed from the ability perspective (Ashkanasy & Daus, 2005; Joseph & Newman, 2010; O'Boyle *et al.*, 2011). The ability measures seem to be more theoretically sound, but show low predictive validity with relation to job performance (Joseph & Newman, 2010). Alternatively, the use of self-report measures of emotional intelligence from the mixed model approach is favoured, as these measures are quicker and easier when collecting data than the ability measures. The mixed model approach also appears to be better contextualised for organisational research and show a strong correlation to job performance (Joseph & Newman, 2010; Smollan & Parry, 2011). In the study by Joseph and Newman (2010) it was shown that EI measures from the ability view are more theoretically consistent, but have non-generalisable criterion validity (i.e.,



only in high emotional labour jobs can emotional competence be a predictor of performance) the study also found significant sex- and race-based subgroup differences. In contrast, measures resulting from the trait or mixed EI perspective showed robust empirical evidence of criterion validity and more negligible sex- and race-based subgroup differences, although with questionable theoretical value.

The ability model refers to EI as the process of perceiving emotions, reasoning with one's emotions, understanding emotions and managing emotions (Joseph & Newman, 2010). Baron's Model consists of five factors; intrapersonal skills, interpersonal skills, adaptability, stress management and general mood. Mayer and Salovey (1997) propose that EI consists of four sub-dimensions: emotion-perception, understanding, facilitation, and regulation.

Similar to this is the mixed method model consisting of self-awareness, self-regulation, motivation, empathy and social skills. The mixed model focuses on the individual themselves as well as the individual when interacting with others and the aspect and skills linked to this. Goleman's model looks at self-awareness, social awareness, self-management, and relationship management. The trait model looks at El from a self-perception perspective within the personality framework.

The ability model is a combination of intelligence and emotion. The ability model can be seen as the more theoretical, narrow approach with fixed constructs of the control and recognition of personal emotion, whereas the mixed model can be seen as a combination of competencies with a broader view of constructs and traits with linked social behaviours (Joseph & Newman, 2010; Nel *et al.*, 2015).

The debate has not been resolved, which can be seen as positive, as through continued debate new research emerges that ensures continued growth in the field and broadens our understanding of EI and how it can be utilised for the company and leadership gain (Joseph & Newman, 2010; Nel et al., 2015).

Some argue that EI could be more important in predicting leadership success than intellectual intelligence (IQ) (Sadri, 2013; Stoller et al., 2013). However, although the



benefits and impact of EI is becoming more and more popular, little research has been conducted to support these views within journals that are peer-reviewed. More research on EI is needed (Stoller *et al.*, 2013). Clarity on a shared definition of EI, its underlying factors, method of measurement and whether or not training and development interventions can impact EI are needed (Leimbach and Maringka, 2010).

According to Joseph and Newman (2010) the mixed model view of EI suffers from theoretical underdevelopment. It displays greater potential for generalisable predictions of job performance. In an attempt to provide the needed clarity on whether or not training and development interventions can impact EI the mixed model approach of EI is used in this study.

It has now been established through the literature review that EI is a complex concept that plays a vital role in every area of an individual's daily life. A change in one area of an individual's EI can impact on change in another area of their EI. In order for a person to successfully cope with emotional situations they need self-awareness and self-regulation, yet self-awareness is needed in order for an individual to regulate their response (Lane, 2000; Rahim *et al.*, 2002).

#### 2.3 EI – A UNI-DIMENSIONAL OR MULTI-DIMENSIONAL CONSTRUCT?

Survey designers originally thought that EI was a multi-dimensional construct with a general score as well as a score for each of the subscores being possible (Hakanen, 2004; Salovey & Mayer, 1990; Schutte *et al.*, 1998), more recent studies, including the majority of EI measures in South Africa also support this view (Nel *et al.*, 2015; Petrides & Furnham, 2000; Tett & Fox, 2005; Wood, Parker & Keefer, 2009).

In contrast, recent research also suggests that EI is a uni-dimensional construct providing only a general score for EI (Brackett & Mayer, 2003; Nel et al., 2015; Riley & Schutte, 2003, Schutte et al., 2007). No clear consensus has been gained yet. Therefore future research would be beneficial to the field in supporting arguments for and against the two views of EI as a construct. Nel et al. (2015) suggest that researchers should be careful when using the scores from subscales as the intersections between them in most



instances are so large that handling these scores as separate dimensions might be too hopeful.

# 2.4 THE ROLE AND IMPORTANCE OF EMOTIONAL INTELLIGENCE TRAINING AND DEVELOPMENT

Training and development within organisations is of utmost importance as supported by Bersin (2014), the research done found that more than 130 billion dollars was spent on training by companies worldwide, 70 billion dollars of which was spent in the US alone. Emotional Intelligence (EI) is one of the core soft skills that companies need to focus on when conducting corporate soft skill training. EI has a significant impact on crucial life outcomes such as social relationships, mental as well as physical health and work performance (Nelis, Quoidbach, Mikolajczak, & Hansenne, 2009).

Low EI results in many negative emotions that are detrimental to the well-being of the individual as well as the organisation, such as anger, hostility and fear. These emotions are energy draining and result in organisational issues such as absenteeism, lower morale, apathy, and block collaborative efforts within a team. As soon as these low EI behaviours begin surfacing a downward spiral effect of low morale, negative politics and avoidance is caused. Nevertheless, management within organisations are in denial with regards to the value of EI within an organisational setting and logic is still seen as a more valuable commodity. This could be due to a lack of competency on how to implement EI training or action plans. Logic can put the structure of an idea into place, but it is the feeling of inspiration and rush of adrenaline that fuels employees and customers to reach the 'Aha' moment required for progress and success (Bagshaw, 2000). Higher EI scores have also seen to be related to lower risks for mental disorders like anxiety and depression which are major and costly organisational well-being issues (Mikolajczak, Bodarwé, Laloyaux, Hansenne, & Nelis, 2010; for a meta-analysis, see Schutte, Malouff, Thorsteinsson, Bhullar, & Rooke, 2007).

According to Bradberry (2014) a company called TalentSmart conducted research that identified the ability of controlling and managing one's emotions and that remaining calm or composed under pressure both have a direct link to work performance. This skill of



controlling and managing one's emotions was found amongst 90% of top performers in a study conducted with more than a million people. Due to the link between El and work performance on an individual and group level (Abraham, 2005; Byrne, 2004; Daus & Ashkanasy, 2005; Van Rooy & Viswesvaran, 2004), El is seen as an important tool in employee hiring and training (Fineman, 2004).

In a study conducted by Kernbach and Schutte (2005) it was found that service providers with more EI employee have a higher rate of customer satisfaction than in companies with lower EI employees. This outcome was found especially in very difficult situations, which may heighten emotion responses and feelings of connection. From a very interesting perspective the study by Gabbott, Tsarenko, and Mok (2011) suggests that the level of the customers' EI plays a vital role in the customers' response to a service failure and should therefore also be considered by employees when attempting to resolve service issues. The study supports the view that customers with a higher level of EI are also better equipped to respond to service failure which results in a more positive outcome. With the concept of EI being established as critical on a daily basis especially when dealing with low EI individuals (Bagshaw, 2000), it is imperative to elaborate on the concepts of EI training and development in more detail.

#### 2.4.1 Training and development of soft skills

As mentioned earlier with the vast amount of investment companies spend on corporate training and development, it seems to be a crucial part of organisational success (Bersin, 2014). With this in mind it is important to consider what training and development of soft skills consist of. For the purpose of this paper training and development of soft skills can be seen as the process of gaining and improving knowledge and practical ability to apply core communication and social skills crucial to effectively functioning in an organisation in order to attain optimum results. Based on the amount of time and money organisations spend on training and development one can see its importance. It is not only important purely on an individual employee improvement level, but also from an organisational bottom-line perspective. Sadri (2012) supports this with the finding that approximately 21% of American organisations' training and development budget focuses on leadership development and supervisory or management training. It is therefore important to define



the concept of EI as it forms part of, but is not limited to soft skill as well as leadership training and development.

#### 2.4.2 El Training and development

Both concepts of EI and soft skill training are important on their own, but the training process of EI receives little attention with most studies focusing only on the method used and not how effective it was in actually improving El. Different approaches to the improvement of EI exist from a team based learning approach (Clarke, 2010) to using an ability approach. Different methods of measuring EI also exist like peer review or a psychometric instrument. Workplace learning interventions may be one way of improving El as this allows for workplace specific learning and development, this also includes on the job training. A study conducted on hospice workers found that emotional knowledge exercises performed at work resulted in improvement of EI over a period of time (Clarke, 2010). Some authors have gained good outcomes on improving EI, however there is still a lack of published research to provide empirical evidence of this (Pool & Qualter, 2012; Shipley, Jackson, & Segrest, 2010; Wong et al., 2010; Thory, 2013; Zammuner, Dionisio, Prandi, & Agnoli, 2013) on the effectiveness of El improvement programmes and whether real change or improvement does in fact occur (Ruiz-Aranda et al., 2012). The level of evidential support for the positive effect of EI training is found to be inadequate at best, with slight evidence to support the statements that many short-course training programmes are in fact effective. This lack of research seems to be especially true for studies on adult EI improvement compared to the research on EI training programmes for children that have yielded good results (Zammuner et al., 2013).

El is critical to success and definitely has an impact on performance and productivity. Studies have found that El plays a key role in effective leadership and impacts the manager as well as the employees or subordinates in terms of job performance and satisfaction (Sadri, 2012; Wong *et al.*, 2010). Individuals with a higher level of El are able to manage their own emotions in more healthy ways than others. These El employees are also able to identify and respond to others' emotions in a suitable way. Their potential can be utilised and focused more easily and in so doing the potential of the organisation as well (Bagshaw, 2000).



#### 2.5 EI NURTURE VERSUS NATURE DEBATE

The focus is now on whether training can be conducted to improve EI of leaders in management positions. Similar to the nature versus nurture argument of whether leaders are born or developed, the same seems to be present for the view on EI. Can EI training effect or even improve EI? International studies seem to agree that training can improve EI, stating that leaders are born and made (Stoller *et al.*, 2013). If this is the case then will it not also be possible to develop the crucial skill of EI within leaders.

The concept of EI according to Goleman is based on the notion of learned competence hinting at the possibility that EI or components thereof can be learned and therefore improved (Goleman, 2004). This supports the view that EI can be nurtured. However, many of the components of EI have a long standing history in psychology as personality factors and may therefore be static and cannot be developed. The study will hopefully provide some insight into this debate (Fernández-berrocal & Extremera, 2006).

Studies have been conducted with the aim of proving that training and development can impact EI. Sadri (2012) suggests that EI as a trait or competency can improve with training; this is also supported by various other studies (Bagshaw, 2000; Dulewicz *et al.*, 2003; Dulewicz & Higgs, 2004; Nelis *et al.* 2009). In support of this Höpfl and Linstead (1997) offer that in their opinion, even though the essential competences of EI are developed within one's early years of development (Silberman, 2001), these are pliable and could be developed and changed; moreover, organisational experiences have a significant impact on this modelling process. Grant (2007) also found that EI can be improved, however with the condition that EI training is conducted over a long-term period as short sessions did not seem to have a significant effect. It was also suggested that training programmes should be theoretically sound, however with various opportunities for real-world application. Workplace learning is also supported by (Hesketh, 1997).

Nelis *et al.* (2009) found that positive changes in the level of EI after an intervention persisted not only in the short term, but lasted for at least 6 months thereafter.

An example mentioned was a study conducted with financial advisors where the performance of a controlled group that was untrained in EI was compared to an EI trained



group. The findings were that a manager that received training, with the help of the employees, was able to grow the business by 18.1 percent after 15 months as opposed to only 16.2 percent for the untrained group and its employees. Similarly a group of 135 employed business students showed significant improvement in El after a mere 11 week El training program; the control group showed no pre-test post-test differences (Sadri, 2013). A study was conducted with 342 employees from information technology firms in Taiwan on El. The findings show that employees who saw their leaders presenting transformational leadership traits were more likely to develop an increase in El traits themselves. This resulted in increased performance and greater organisational citizenship behaviours. These findings might suggests that having a mentor high in El increases the likelihood of improved El behaviour in the mentee or employee (Yuan, Hsu, Shieh, & Li, 2012). These studies support the notion that training can in fact improve individual El. It has been suggested that team learning in conjunction with one-day EI training may be more effective than training in isolation. The findings advise that team learning allows for participation and through this develops EI skills, the level of participation by the individual is however crucial to the improvement of EI (Clarke, 2010). A study aimed at increasing emotional competence in adulthood obtained findings to support the increase of EI after training as well as lower stress hormones being secreted, resulting in enhanced well-being (Kotsou, Nelis, Grégoire, & Mikolajczak, 2011).

#### 2.6 ELEMENTS OF EMOTIONAL INTELLIGENCE

#### 2.6.1 Emotionally controlled

A study by Gardner and Stough (2002) used a self-report instrument to measure leaders' EI five factors namely: emotional recognition and expression, emotions direct cognition, understanding of external emotions, emotional management and emotional control. Therefore the ability of leaders to manage and control their emotions is crucial to EI. Salovey and Mayer (1990) label this facet of EI as recognition of emotion in oneself through verbal and non-verbal means as well as the ability to control one's own as well as others' emotions (Dulewicz & Higgs, 2004). Bagshaw (2000) refers to this dimension of EI as empathic relationship as well as the self-awareness and self-control dimensions, which involves communicating authentically, being understood and developing relationships of



trust. It is also the ability to recognise own reactions, awareness of inner feeling and appreciation of oneself (Rozell, Pettijohn, and Parker 2004). Petrides, Pita, and Kokkinaki (2007) describe this dimension through self-control consisting of emotion regulation and low impulsiveness, individuals with high EI are able to regulate their emotions when necessary as well as being able to manage urges and thinking before acting. Emotionality can also be linked to this dimension consisting of emotional perception and identification of own and others' emotions (Gabbott *et al.*, 2011). Emotionality also consists of emotional expression through sharing one's feeling with others, relationship skills such as initiating and maintaining rich meaningful relationships through caring and listening to others and empathy by putting oneself in another's situation (Silberman, 2001).

#### 2.6.2 Stress management

A study by Gardner and Stough (2002) found that when looking at how leaders manage stress and pressure, El training and development was found to have a significant positive effect on leaders. A pre-test post-test method was used to measure the increase in EI and the positive effect it had. The more El leaders were, the less stress they experienced. This may also be due to good conflict resolution skills as well as the ability of these leaders to be assertive. These skills may result in less stress being perceived as leaders feel competent and are able to handle challenges (Gardner & Stough, 2002). Bagshaw (2000) refers to this dimension of EI as resilience under pressure, or a moderator to stress, as they view situations of high stress as opportunities rather than pressures (Dulewicz & Higgs, 2004; Gabbott et al., 2011; Mikolajczak & Luminet 2008; Mikolajczak, Roy, Luminet, Fillée, & de Timary, 2007). This, through managing stress reactions and reframing situations in a positive light, as well as setting aside time for renewal and relaxation. Petrides, Pita, and Kokkinaki (2007) describe this dimension through self-control, by choosing effective coping strategies in stressful situations. Highly EI individuals have better stress resistance abilities in various situations (Zeidner, Matthews, & Roberts 2006), which may be due to the use of adaptive instead of maladaptive reactions.



#### 2.6.3 Effective time management

Good time management skills reduce stress as well as make the management of workplace relationship more successful (Gardner & Stough, 2002). Bagshaw (2000) refers to this dimension of EI as creative tension, being able to defer instant rewards for future achievements by investing time now for future rewards. Dulewicz and Higgs (2004) refer to conscientiousness as being reliable in one's words and actions, and behaving according to prevailing ethical standards, this can be directly linked to time management, as this will affect one's perceived reliability.

#### 2.6.4 Self-motivation and positivity

Leaders' ability to motivate themselves and to stay positive, impacts interpersonal relations within the workplace. Interpersonal skills as a factor are found within Baron's model on EI (Bar-On, 1997; 2006). Salovey and Mayer (1990) label this facet of EI as pursuing objectives with a positive outlook, diligence and ambition. This dimension can also be linked to Bagshaw's (2000) dimension of EI as resilience under pressure through the act of reframing situations positively. This dimension of EI can also be seen as self-esteem, trait, optimism and happiness. Individuals have a positive view of themselves and their achievements, seeking the brighter side of life by having an overall satisfaction and cheerfulness about life and having good well-being (Petrides, et al., 2007). In addition Petrides, et al. (2007) describe this dimension through sociability consisting of self-motivation where an individual is more internally motivated than externally motivated and being able to reach stimulating long-term targets (Dulewicz & Higgs, 2004).

#### 2.6.5 Responds well to change

Furthermore, EI was found to have a significant impact in obtaining organisational change in a study on the role of EI and attitudes towards organisational change; the study indicates the value of EI training and development (Vakola, Tsaousis, & Nikolaou, 2004).



#### 2.6.6 Conflict management

A study by James, Brodersen, and Eisenberg (2004) found that high EI abilities of leaders predicted successful problem solving and conflict resolution within teams as well as their level of effectiveness and cohesion (Quoidbach & Hansenne, 2009; Stubbs, 2005). The study suggests that training and development of EI should be considered by management to increase performance. The assertiveness of managers was measured as a component of EI related to key competencies of managers and found to be of importance (Langhorn, 2004). Individuals with high EI are extraordinary when it comes to resolving conflict. They are able to identify what the problem is and negotiate on points of difference in order to come to a positive resolution through addressing the conflict head-on (Gabbott *et al.*, 2011; Silberman, 2001).

#### 2.6.7 Managing varying personalities well

Research does not clearly mention this aspect of EI, but the link to empathy mentioned by Salovey and Mayer (1990) can be related to this aspect of EI. Dulewicz and Higgs (2004) also refer to empathy as a dimension of EI as this facet is defined as the ability to understand and relate to other's emotions. Thereby the assumption can be made that through empathy an individual would be better able to manage varying personalities within an organisational setting.

#### 2.6.8 Effective problem-solving and decision-making

Bagshaw, (2000) refers to this dimension of EI as active choice, being able to make decisions between multiple equally attractive options, while being proactive and taking risks. Dulewicz and Higgs (2004) refer to this as intuitiveness, as the ability to use reasoning and intuition when making decisions. Another dimension of EI can be seen as the use of emotions as a tool in facilitating analysis, thinking and decision making in order to solve problems (Gabbott *et al.*, 2011).



#### 2.6.9 Assertiveness

Assertiveness can be linked to Bagshaw's (2000) dimension of EI as empathic relationship through the use of assertive communication. Petrides, et al. (2007) describe this dimension through sociability consisting of assertiveness where an individual is frank or straightforward in expressing their needs in a non-aggressive clarifying manner while sticking to set limits or boundaries (Silberman, 2001).

#### 2.7 THEMES AND TRENDS IN EI TRAINING

A few themes such as training in schools, and tertiary institutions as well as the medical field, are the main focus areas that seem to emerge through the review of existing literature.

El training within schools, adolescents and students in tertiary education seem to be a main focus area. These studies were aimed at improving individuals' El skills to prepare them for the workplace or next level of education or social phase. Studies are so focused on outcomes and in the process overlook the method of improvement. Many of the studies also do not provide data on the degree of improvement after training has taken place. Most of the studies only focused on the relationships between the presence of El and another variable or concept.

Some advice and suggestions emerged from the literature review. When planning to develop EI, Sadri (2013) suggests that organisations do not try and address all the competencies of EI at once, but to focus on one or a few competencies at a time and allow for further individualised training at a later stage. This individualised training would focus on EI competencies that may still need improvement. It is posed that in order for EI training to be effective the programmes need to be quite rigorous in terms of effort and time which could also in some cases result in high costs to be incurred and organisations may find it difficult to implement these programmes (Zammuner *et al.*, 2013). The use of a peer performance rating method to evaluate EI skills may not always reflect actual improvement of EI skills, but might only be reflecting the increased awareness and motivation of individuals to use their current EI abilities (Clarke, 2010). For this reason an objective



ability test may be suggested. However, within an organisational setting perception is critical. Consequently the evaluation of an individual's EI skills whether latent or whether actual improvement is measured, might be irrelevant. The main focus is to create organisational EI improvement and awareness and therefore if correctly justified and monitored a peer review method of evaluation may provide invaluable insights into the development of EI within leaders. In the study by Zammuner *et al.* (2013) even short self-administered training programmes could improve EI as a competency to assist leaders in developing better emotional awareness.

In terms of the samples used, a few of the studies were based on the medical field as participants, students also appearing quite often. This might be due to the social nature and environment of the medical field where EI is critical. EI training studies were found in various areas outside of the usual corporate arena, from schools and tertiary education to the medical field and even sports. A few of these relevant studies will briefly be discussed.

A study was conducted on 147 high school pupils using a pre-test, post-test evaluation method over a two year period. With the pupils that participated better psychosocial adjustment and overall well-being was found, resulting in lower levels of stress and anxiety, lower levels of depression as well as higher levels of self-esteem when compared to the pupils in the control group who did not participate (Ruiz--Aranda *et al.*, 2012).

According to a study conducted with undergraduate students mentioned in (Zammuner *et al.*, 2013) the study comprised of several EI focused training sessions that resulted in the students' improved emotional understanding and regulation skills when compared to the control group, which in turn experienced no change at all. Another study aimed to determine whether the level of EI could be improved in university students through a teaching intervention. The findings suggested that self-efficacy as well as EI skills can be improved (Pool & Qualter, 2012). Hatamzadeh, Molaie, and Shahidi (2012) conducted a study on 36 Iranian university students which aimed to improve EI and general health through training sessions. The findings showed evidence for the effectiveness of using psychological educational training to improve EI aspects as well as general health.



Within the medical field effective leaders are needed physicians are trained and developed in scientific and clinical skills, but EI which is crucial to effective leadership is often neglected. The study suggests that training in EI should occur on a continuous basis with focus areas that are relevant to the current situation being presented regularly (Stoller *et al.*, 2013). Another study conducted on medical students aimed at improving EI through life skills training found a significant increase after the training sessions when compared to the control group with no significant difference. These improvements may also lead to higher levels of stress tolerance as well as to academic success (Lolaty, Ghahari, Tirgari, & Fard, 2012).

The need for EI training within the medical field may be due to the very social and human behavioural side to the field of working with people, with both colleagues and patients. Therefore, EI is a crucial skill in order to be a successful physician and leader within this field, as human interaction is a prerequisite in most instances. An interesting study suggested the use of a Development Assessment Centre method in order to improve EI skills of general practitioner appraisers. Overall results showed that the Assessment Development Centre played a supportive function to the medical appraisers. The combination of Assessment Centre and EI allowed for reflection and feedback and the opportunity to link the feedback received to their EI profiles (Tavabie, Koczwara, & Patterson, 2010).

One of the few studies conducted on EI training within the South African context was conducted on 24 individual cricketers to determine whether an EI training and development intervention could have any impact on EI profile scores. This was conducted by use of a pre- and post-tests evaluation method. The approximate averaged comparative score increased over a period of two years with 14.5% which is significant and may support the notion that training and development can improve EI skills of individual cricketers (Crombie et al., 2011).



#### 2.8 CONCLUSION

Not enough empirical research has been done to support the notion that training can affect and improve EI. From the literature review conducted one is able to see that there is substantive evidence internationally of the importance of EI and the training and development thereof. This is found within leadership and management positions as well as various other areas such as school children, and the benefits of EI even within one's personal life. However, can the same evidence be found within the South African context with so many unique variables that come into play like culture and economic standing.

Still too much focus is placed on the benefits or factors of EI as an outcome, with little evidence of how EI improvement can take place and be measured. This evidence is important as EI is such a critical ability to possess. Based on current research these topics have not yet comprehensively been addressed with regards to leaders or managers within South African industries. As stated by Bagshaw (2000, p. 62) "even logic tells us this is true. We cannot expand knowledge purely with knowledge that already exists. There has to be an input of hunches, guesses and intuition." Therefore this study aims to provide some of these inputs into expanding the understanding of EI within an organisational setting.

This chapter covered the meaning EI as a concept as well as the different EI models. The nurture versus nature debate was briefly discussed, the different elements of EI were presented and the chapter is concluded with an overview of the themes and trends within the field of EI.



#### CHAPTER 3: RESEARCH METHODOLOGY

#### 3.1 INTRODUCTION

This chapter defines and elaborates on the most suitable research design as well as method, ensuring that the research objectives are met. The research objectives, type of data collected, sample and overall aim of the study influences the research paradigm and design chosen. The process and method of El measurement, data collection and analysis is discussed. The quality and rigour of the research design is argued. The relevant research ethics are addressed to conclude the section on research design and methods. Figure 1 below provides a holistic view of the generic research design and methods section.

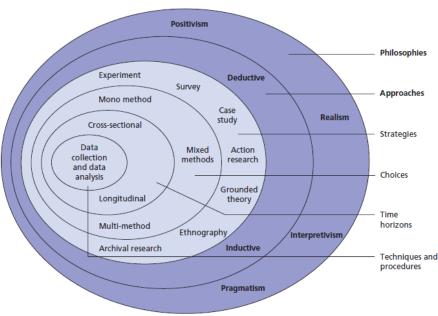


Figure 3.1
The Research "Onion" (Saunders, Lewis, & Thornhill, 2009).

#### 3.2 RESEARCH PARADIGM

A research paradigm supports the rationale for using specific methodology, and the process through which knowledge is gained and processed. A research paradigm can be defined as way of investigating societal occurrences from which specific insight about



these occurrences can be gained, in an attempt to obtain answers or reasons for their existence (Saunders *et al.*, 2009).

Therefore, post-positivism was chosen as the most suitable paradigm for this study. Post-positivism is external to the process of data collection and therefore aims to prevent small changes to the substance of the data collected (Saunders *et al.*, 2009). Post-positivism explains how things operate and follows a scientific approach which is slightly less conservative in approach, as opposed to a pure positivistic approach. The post-positivistic approach follows a structured approach in proposing a hypothesis and then testing these through experiments or observations. The process needs to be objective and replicable to ensure standardisation affecting the rigour or reliability and validity of the study (McGregor & Murnane, 2010). The current study aims to determine whether leadership training has an effect on EI. The post-positivist approach assumes that there is more than one reality. Through the use of a post-positivistic approach one is able to gain objective measurable data on the effect of EI training on leaders, which is in line with the study's need to gain objective quantitative data on the effect of EI training and development programmes on leaders, across industries. In addition the quantitative numerical data allows for ease of an objective comparison on the effect of EI training on leaders across industries.

#### 3.3 RESEARCH APPROACH

Quantitative research is an approach that makes use of certain designs, data collection processes and data analyses (Saunders *et al.*, 2009). Quantitative research is a systematic process that makes use of numerical data in an objective way through presenting generalisable findings related only to the specific group under study (Maree, 2007). In terms of design, quantitative research can be classified as experimental or non-experimental. Experimental designs aim to answer a cause and effect question whereas a non-experimental design endeavours to measure chosen variables and are descriptive in nature (Maree, 2007). Qualitative data collection occurs through the use of surveys or questionnaires in various forms and methods which result in quantifiable data. Quantitative data analyses consist of descriptive statistics such as the mean and standard deviation as well as inferential statics that amongst other things aim to quantify chance (Maree, 2007).



Quantitative research does not always provide enough insight related to results obtained. The end result can be objectively presented, however the possible reasons for outliers or unexpected results are in some cases difficult to determine due to a lack of information depth and richness which qualitative research often provides.

Quantitative research to some extent minimises the presence of subjective biases; although it cannot be completely prevented, quantitative research is generally seen to be more objective when compared to qualitative research (Babbie, 2010). Quantitative research allows for comparison of groups due to the nature of numerical data. Results can therefore be generalised more easily than in qualitative studies where results are usually only applicable to one group or individual participating in the study. Quantitative studies are also more readily replicated, due to the systematic nature of the research approach.

Therefore the quantitative research approach was found suitable, as the instrument used resulted in quantitative data. The quantitative approach was suitable for the study as it allowed for the analysis of data and made it possible to conduct a comparison across the different industries. This is in line with the purpose of the study to investigate the effect of EI training and development programmes on leaders across industries.

#### 3.4 RESEARCH DESIGN

The research design of a study serves as a map or guide on the "how" of answering the research questions set, to support or reject the research questions proposed (Saunders *et al.*, 2009). The research design also directs the choice of a research method in order to obtain the correct type of data for the study. The purpose of research can be for exploration, description or explanation. Exploratory studies aim to explore an interesting or new topic, usually gathering initial data to be used in a future study. In descriptive research the aim is to observe and then describe the observed occurrence or situation. Research with the purpose to explain is called explanatory research which aims to explain the why or reason behind a situation (Babbie, 2010).

The purpose of this study is therefore explanatory in nature, as the research questions serve the purpose of identifying and explaining the effect that EI training had on



leadership. The causal relationship between EI training and EI skills of leaders was studied in order to explain the existence of and reason for the relationship between the variables (Saunders *et al.*, 2009).

A pre-experimental research design was chosen for this study. Two types of pre-experimental designs can be delineated. The first type being a one-shot case study and the second being a one-group pre-test and post-test. A one-shot case study can be symbolised as X-O, where X represents exposure of a treatment group to an event or experimental variable and O represents an observation or measurement. A significant limitation of this design is it neither allows a comparison with a control group nor does it allow pre-treatment baseline scores to be determined. The second design which is the one-group pre-test and post-test is a slight improvement on the one-group pre-test and post-test, because it allows for the baseline scores to be obtained. (Rosnow & Rosenthal, 2013). A pre-experimental design makes use of the systematic and controlled approach of an experimental design, however no control group was used and the same intervention was introduced to the participating managers. Due to the lack of a control group a pre-experimental design was chosen.

A pre-experimental research design consists of a single group or various groups that are observed in the light of an intervention that is thought to be the cause of the observed change (Research Connections, 2013).

In this study a one-group pre-test and post-test design was preferred to achieve the objectives of the study. This is in line with the aim of the study, to investigate the effect of EI training and development programmes on leaders across industries. A pre-experimental research design was most suitable for the study as the study was found to be very similar to an experimental research design; however there was no control group for the study. Within the pre-experimental research design a one-group pre-test and post-test research design was chosen as it resulted in quantifiable data that was compared across industries. A 360 degree survey was completed by the respondents on the participating managers before the EI training and development intervention. The pre-test allowed for the observation or measurement of the perceived level of EI before the intervention. The EI training and development intervention was then conducted, followed by another 360



degree survey which was completed by the respondents on the participating managers after the EI training and development intervention. The one-group pre-test and post-test research design made it possible to determine the effect of the EI training and development on leaders from a 360 degree perspective. Due to the lack of a control group, validity of the findings may be a challenge (Research Connections, 2013).

#### 3.4.1 A description of the study's overall research design

The following are suitable descriptions of the general overview relevant to the study's research design:

- Empirical research The study can be described as an empirical study, because the researcher collected and analysed secondary data.
- Non-experimental research describes the causal relationship between variables
  whilst recognising the limitations of non-experimental designs such as the absence of
  a control group and randomisation. The purpose of this study was to identify the
  effect of El training on the El skills of leaders.
- Cross-sectional research Cross-sectional research involves the study of a particular occurrence at a particular time. This study was cross-sectional research, as the result obtained are related to a once-off leadership programme and the data collected represents a single point in time.
- Secondary data Secondary data is data that is collected from a previous study or data which was collected for a different purpose than that of the current study. For this study, the researcher used previously collected empirical quantitative data in order to answer the proposed research question.
- Quantitative data Quantitative data can be described as measurable quantifiable numerical data. The data collection technique that was used for this study was a 360 degree survey data which generated numerical data.



#### 3.5 SAMPLING

#### 3.5.1 Population

A population consists of a group of sampling units (Maree, 2007). The specific group or sample is linked to the research question of the study and this is called the population of the study (Maree, 2007). The population for the study consists of employees in leadership positions across industries. These employees usually fulfil the role of middle management. The population for the study consists of managers within Africa, operating within various industries, which are sent by their respective organisations to attend and complete the Leadership Academy programme from the year 2012 to the year 2016. This population of participating managers was found most suitable for the purpose of the study and allowed for the necessary data to be collected from the El scores of the participating managers.

#### **3.5.2 Sample**

The sampling strategy utilised is that of non-probability sampling using a purposive approach. Two sampling strategies can be delineated, that is, probability and non-probability sampling (Maree, 2007). The non-probability sampling method was used in this study, as the probability of the sample being chosen or not is unknown. The benefits of using a non-probability sampling method are that results can be obtained more readily, cost effective and it allows for a specific population to be used which under other sampling methods may be difficult to obtain. However, restrictions of this method are that representation and generalisability of results may be limited (Maree, 2007).

Purposive sampling can be defined as "the deliberate choice of an informant due to the qualities the informant possesses" (Tongco, 2007) and is used as only individuals who have completed the leadership programme, were used. Therefore, limiting the pool from which the sample was drawn and purposefully only selecting managers from the respective organisations that have sent managers on the specific training programme on EI. The students and data were pre-existing as they were sent for leadership training by their various companies. This approach is in line with the purpose of the study to



investigate the effect of EI training and development programmes on leaders across industries. This strategy allowed for the collection of data from the target group.

Therefore the sample includes those individuals that attended and completed the Leadership Academy. These employees or participating managers were at the time of data collection in a level of management and wanted to improve their competencies or were nominated by their superiors for the training. A sample size of n = 270 was used for the study. As suggested by (Nel *et al.*, 2015), when a sample is used that is on an equal managerial level and equivalent industry, it results in more comparable statistical outcomes.

#### 3.6 DATA COLLECTION

#### 3.6.1 Instrument

The data was collected through a quantitative, 360 Degree Leadership Programme Questionnaire used in practice, which covers important, general leadership skills such as team motivation, feedback and EI to name a few. The 360 degree questionnaire allowed for the perspectives of various stakeholders to be obtained and allowed for comparison. The study made use of 9 items out of the 42 items in the 360 questionnaire on a 10 point Likert scale, in order to obtain primary quantitative data. The 360 questionnaire allows for various perspectives, on the 9 items. The instrument was mainly developed for use within practice.

#### 3.6.2 Procedure

Prior to the start of the Leadership programme the online assessment was sent to respondents. The online assessment covers topics related to Emotional Intelligence as perceived by superiors, colleagues and subordinates of the managers participating in the Leadership Academy Programme. These individuals were nominated by the participating managers' superior or direct manager and respondents were kept confidential at all times. An eight month Leadership programme was then conducted, after which the online assessment was administered once again to the nominated respondents. By conducting a



Pre- and Post-Assessment a pre- and post- 360 degree assessment score was obtained with the aim of indicating an improvement or deterioration in EI related areas after the training occurred.

Limitations of the data collection process are the possible presence of later??? bias, not being able to use the same respondents' pre- and post- – some people quit or move to different organisations. Errors in capturing data, result in the number of respondents not being universal. During the process a minimum of 10 respondents is requested, but this was not always practically possible. Questions may not be understood in the same way by all.

The 360 El Assessment Questions relate to the following emotional intelligence themes:

- Emotionally controlled (aware of and managing their emotions).
- Manages varying personalities well with and amongst the staff.
- Manages his/her time effectively.
- The ability to motivate him/herself and stay positive.
- Effective in problem-solving and decision-making.
- · Responds well to change.
- Manages stress and pressure very well.
- Manages conflict effectively.
- Assertive as a leader.

# 3.7 DATA ANALYSIS

A statistical software package called Statistical Package for the Social Sciences (SPSS) version 23 was used. Data was analysed using both descriptive and inferential statistics. Through the use of SPSS descriptive statistics such as the standard deviation, mean, frequency and variance were obtained. The reliability analysis of the EI section of the instrument was conducted using the Cronbach alpha. Inferential statistics such as t-test and ANOVA was computed to compare the different student group results to one another in order to determine the significance of results obtained across industries. A post-hoc analysis using the Scheffe method was also conducted to determine the exact location of



any observed differences amongst the groups. Average scores were gained for each question across as well as an overall group average. Based on the average scores gained for both the Pre- and Post-Assessment result indicated either an improvement or deterioration in perceived EI skills after the training programme. In turn this aimed to provide evidence for the effect, whether negative or positive that EI training had on the EI skills of the participating managers as well as across industries.

# 3.8 ASSESSING AND DEMONSTRATING THE QUALITY AND RIGOUR OF THE RESEARCH DESIGN

It is critical to ensure the quality and rigour of a study in the process of gaining answers to the research questions. A good research design therefore serves the purpose of reducing the possibility of getting the answer wrong (Saunders *et al.*, 2009).

# 3.8.1 Reliability

Reliability refers to the consistency of the measure used in the study (Maree, 2007). The reliability of the process is linked to the author's systematic approach to sampling and collecting the data The EI section of the 360 assessment was found to be reliable based on the Cronbach alpha of 0.9, as a value of greater than 0.7 is seen as acceptable (Hair *et al.*, 1998).

### 3.8.2 Validity

Validity can be seen as the accuracy of the conclusions and assumptions made. The degree of reliability could also refer to how generalisable the results of the study are to larger populations who were not part of the original study, as well as the reputation and previous success of the 360 degree survey in practice used in collecting the data. In terms of the reliability and validity of the study, it is important to ensure the logical rigour of the study as a form of quality control on the findings of the study. The use of a positivistic paradigm resulted in objectivity as data was collected in an objective way. Little interference occurred in the process of collecting data. A quantitative research approach



further ensured objectivity of the study. If a structured and scientific method is followed as was in this study, the findings of the research could be very beneficial and used in theoretical as well as practical sphere of the concept under study (McGregor & Murnane, 2010).

# 3.9 RESEARCH ETHICS

Research ethics can be seen as the manner in which a researcher creates, simplifies, designs and gains access to, collects and stores data. Research ethics also consist of the analysis of the obtained data and the recording of the resulting research findings (Saunders *et al.*, 2009). Especially in studies where researchers are working with an individual's ethical processes and guidelines need to be adhered to (Leedy & Ormrod, 2010) for the benefit of the participating individual, the researcher and the final outcome of a study.

Confidentiality, anonymity, as well as the integrity of data handling was ensured to avoid the manipulation of results for personal gain or favourable outcomes in terms of the results. Data was handled with confidentiality at all times. Anonymity was ensured by replacing actual names of participating managers with fictitious names or symbols to keep participating managers anonymous. Consent was obtained from the director of the company, with strict conditions under which access to the data was granted and the specific data that was retrieved and used for the purpose of the study, stipulated.

The specific ethical principles that applied to the study will now briefly be discussed.

#### 3.9.1 Ethical clearance

University of Pretoria ethical guidelines were followed during this study. The research firstly had to be approved by the Human Resource Management Department through means of a research proposal. Secondly, the research underwent an ethical approval process conducted by the Ethics Committee of the University of Pretoria. Approval was gained before commencing with the study.



# 3.9.2 Data Management

Due to the nature of the data obtained by the participating manager, the data was kept confidential at all times. Any identification information was replaced through recoding and any references made referred to general industries in order to ensure anonymity of participants as well as the companies the participating mangers work for. Data will be stored for at least five years. Confidentially was maintained through restricted access to the data, as only parties involved in the study had access to the data. Confidentiality was further ensured by only using the recoded data during the data analysis process, meaning only the researcher had access to the raw data and was solely responsible for the transfer and storage of the data.

# 3.9.3 Respect of others research

Appropriate reference was main to other authors' and researchers' work as well as acknowledgements made when information was used. This was done throughout the study to ensure the prevention of plagiarism as well as adhering to copyright laws.

## 3.9.4 Protection against harm

The research design should not harm, or put subjects in a compromising or uncomfortable position (Saunders *et al.*, 2009). Due to the nature of the data collected i.e. questionnaires, no physical harm would be apparent in participating in the study. However, due to the vulnerable aspect of being assessed on one's competency, in this case emotional intelligence, strict confidentiality guidelines where followed to ensure the emotional security of participating managers.

### 3.10 CONCLUSION

This chapter defined the research design as well as method that led to the research objectives being met. The type of data collected, sample and overall aim of the study were discussed. The process and method of EI measurement for this study were covered. The quality and rigour of the research design was reasoned. The relevant research ethics were addressed in conclusion of the section on research design and methods.



# **CHAPTER 4: RESULTS AND DISCUSSION**

# 4.1 INTRODUCTION

This chapter covers the results obtained through the data collection and analysis process discussed in the previous chapter. The results will be discussed and a brief interpretation provided. The sample description, descriptive as well as inferential statistics will be presented. The reliability of the instrument used is covered and the chapter is concluded by a comparison of the different industries that participated in the study.

#### 4.2 FORMULATED HYPOTHESES

The following hypotheses were formulated for testing during the study:

H<sub>1</sub>: El training has an effect on the El of the participating managers.

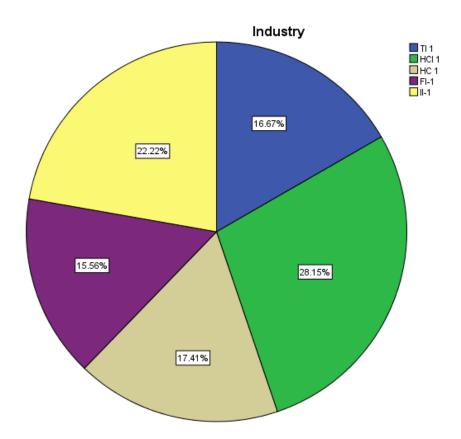
H<sub>2</sub>: There is no significant difference in the participating managers' average EI scores across industries.

H<sub>3</sub>: There is a significant effect size of EI training across industries.

### 4.3 SAMPLE DESCRIPTION

The sample consists of 270 participating managers that were evenly spread across different industries. With each industry having more than 40 participating managers, 16.67% of the participating managers were from the Tobacco industry, 28.15% were from the Health Care industry, 17.41% were from Holding Companies, 15.56% were from the Financial industry and 22.22% were from the Industrial industry (see Figure 4.1).





**Figure 4.1 Sample Distribution Across Various Industries** 

Industry	Sample Description
1 - Tobacco (TI 1)	Managers within African Tabacco companies.
2 - Health Care (HCI 1)	Managers within a hospital setting.
3 - Holding Company (HC 1)	Managers within an African corporate company.
4 - Financial (FI-1)	Managers within African companies.
5 -Industrial (II-1)	Managers within an industrial or manufacturing setting.

# **4.3 DESCRIPTIVE STATISTICS**

Table 4.1 below presents the descriptives on the participants' overall pre-test averages.



# 4.3.1 Group Performance on All the Items of the Instrument

Table 4.1 Descriptives on Overall Group Averages Pre-test						
	N	Min	Max	М	SD	
Pre-Emotionally controlled	270	35	100	71.04	10.88	
Pre-Manage various Personalities	270	41	100	70.31	10.99	
Pre-Time Management	270	39	98	73.47	10.61	
Pre-Self Motivated	204	46	94	75.49	8.97	
Pre-Problem-solving and Decision-making	270	36	95	72.67	10.41	
Pre-Change Management skills	270	39	93	74.22	9.62	
Pre-Stress and Pressure Management	270	37	94	70.81	10.08	
Pre-Conflict Management	270	35	91	67.66	10.30	
Pre-Assertiveness	270	37	100	72.48	9.98	
Pretesting Average	270	44	93	71.99	8.71	



Table 4.2 below presents the descriptives on the participants' overall post-test averages.

Table 4.2 Des	criptives o	n Overall G	iroup Avera	iges Post-	test
	N	Min	Max	М	SD
Post-Emotionally controlled	270	37	95	74.49	10.08
Post-Manage various Personalities	270	44	96	74.09	9.40
Post-Time Management	270	38	97	76.22	10.65
Post-Self Motivated	217	46	97	78.59	9.16
Post-Problem-solving and Decision-making	270	36	97	75.91	9.45
Post-Change Management skills	270	43	96	77.20	9.32
Post-Stress and Pressure Management	270	34	97	74.38	9.72
Post-Conflict Management	270	36	96	72.07	9.49
Post-Assertiveness	255	36	96	75.82	9.74
Post-testing Average	270	44	95	75.36	8.39
Valid N (listwise)	189				

• The lowest scoring item before the intervention was conflict management M = 67.66, SD = 10.30 with the highest scoring item being self-motivated with M = 75.49, SD = 8.97. After the intervention the lowest scoring item was conflict management with M = 72.07, SD = 9.49 and the highest scoring item was self-motivated M = 78.59, SD = 9.16.



# 4.3.2 Descriptive Statistics for the Industry

Table 4.3 below presents the descriptives statistics on the different industries, comparing their pre-test and post-test averages.

Table 4.3 Comparing Individual Industry Averages						
Industry	N	Pre Ave	Pre SD	Post Ave	Post SD	Difference
Tobacco (TI 1)	45	75.50	7.23	78.34	7.02	2.84
Health Care (HCI 1)	76	71.91	9.89	76.18	9.67	4.27
Holding Company (HC 1)	47	74.03	6.54	76.24	5.53	2.21
Financial (FI-1)	42	73.54	7.32	75.71	5.71	2.17
Industrial (II-1)	60	66.78	8.36	71.16	9.63	4.38

When comparing the industries in terms of pre- to post- intervention results overall, a positive shift of at least two percent was found across the various industries, with the smallest change found in the financial industry and the largest change was in the Industrial industry.

# 4.3.4 Reliability of the Instrument

Table 4.4 below presents the Cronbach Alpha scores for pre-test and post-test scores.

Table 4.4: Item Cronbach Alpha's

Pretesting Average	0.97
Post-testing Average	0.97

The EI section of the 360 assessment can be seen as reliable based on the Cronbach alpha of 0.9, as a value of greater than 0.7 is seen as acceptable (Hair *et al.*, 1998). This indicates that within the variables, there is item correlation and internal consistency. According to Hair *et al.* (1998), the Cronbach Alpha measures how well a set of items measures a particular, measurable, underlying construct. The Cronbach Alpha is used due to the fact that it serves as a measure of reliability for psychometric instruments.



# **4.4 INFERENTIAL STATISTICS**

Table 4.5 below presents the paired T-test scores for each of the variables measured.

Table 4.5 Paired T-test						
Variable	N	Pre Ave	Pre SD	Post Ave	Post SD	Sig
Emotionally controlled	270	71.04	10.88	74.49	10.08	0.000***
Manage various Personalities	270	70.31	10.99	74.09	9.40	0.000***
Time Management	270	73.47	10.61	76.22	10.65	0.000***
Self-Motivated	204	75.49	8.97	78.59	9.16	0.000***
Problem-solving and Decision-making	270	72.67	10.41	75.91	9.45	0.000***
Change Management skills	270	74.22	9.62	77.20	9.32	0.000***
Stress and Pressure Management	270	70.81	10.08	74.38	9.72	0.000***
Conflict Management	270	67.66	10.30	72.07	9.49	0.000***
Assertiveness	255	72.48	9.98	75.82	9.74	0.000***

<sup>\*</sup>p≤ 0.05; \*\*p≤ 0.01, \*\*\*p≤ 0.001

All items had a significant change from pre- to post-intervention with p < 0.001. Therefore, with p < 0.001 this indicates that an increase of EI skills was observed across the participating sample of leaders.



#### **4.4.1 ANOVA**

Table 4.6 presents the participants' ANOVA results when compared across industries.

Table 4.6 ANOVA		
Pretesting Average	Between Groups	0.000***
	Within Groups	
	Total	
Post-testing Average	Between Groups	0.000***
-	Within Groups	
	Total	
Difference Pre- and Post-	Between Groups	0.164
	Within Groups	
	Total	

\*p≤ 0.05; \*\*p≤ 0.01, \*\*\*p≤ 0.001

A significant value of p < 0.001 was found for both the pre- and post-intervention however, the difference between groups was not found to be significant with a p-value of p > 0.05 (Pallant, 2013). With the pretesting average found to be significant, means that the baseline of participating managers before the intervention was significantly different from one another when comparing the different industries to one another. The post-testing average found to be significant means that the baseline of participating managers after the intervention was significantly different from one another when comparing the different industries to one another. When comparing the group results no significant differences were found, meaning a similar level of growth was experience across all industries regardless of the differences in EI scores before and after the training intervention.

# 4.4.2 Post Hoc Table

Table 4.7 presents the Post Hoc Multiple Comparisons across industries.



Table 4.7 Post Hoc Multiple Comparisons								
Dependent Variable		(1)	(J)	Mean	Std.		95% Cor Inter	
		Industry	Industry	Difference (I-J)	Error	Sig.	Lower Bound	Upper Bound
Pre-testing	Scheffe	TI 1	HCI 1	3.59	1.55	0.25	-1.21	8.39
Average			HC 1	1.47	1.72	0.95	-3.86	6.79
			FI-1	1.96	1.77	0.87	-3.52	7.43
			II-1	8.72*	1.62	0.00	3.69	13.75
		HCI 1	TI 1	-3.59	1.55	0.25	-8.39	1.21
			HC 1	-2.13	1.53	0.75	-6.86	2.61
			FI-1	-1.64	1.58	0.90	-6.54	3.27
			II-1	5.13*	1.42	0.01	.72	9.54
		HC 1	TI 1	-1.47	1.72	0.95	-6.79	3.86
			HCI 1	2.13	1.53	0.75	-2.61	6.86
			FI-1	0.49	1.75	1.00	-4.93	5.91
			II-1	7.26*	1.60	0.00	2.29	12.23
		FI-1	TI 1	-1.96	1.77	0.87	-7.43	3.52
			HCI 1	1.64	1.58	0.90	-3.27	6.54
			HC 1	-0.49	1.75	1.00	-5.91	4.93
			II-1	6.77*	1.66	0.00	1.63	11.90
	II-1	TI 1	-8.72*	1.62	0.00	-13.75	-3.69	
		HCI 1	-5.13*	1.42	0.01	-9.54	72	
			HC 1	-7.26*	1.60	0.00	-12.23	-2.29
			FI-1	-6.77*	1.66	0.00	-11.90	-1.63
Post-testing	Scheffe	TI 1	HCI 1	2.15	1.52	0.74	-2.57	6.88
Average			HC 1	2.10	1.69	0.82	-3.15	7.34
			FI-1	2.63	1.74	0.68	-2.77	8.02
			II-1	7.10*	1.60	0.00	2.22	12.14
		HCI 1	TI 1	-2.15	1.52	0.74	-6.88	2.57
			HC 1	-0.06	1.50	1.00	-4.72	4.60
			FI-1	0.47	1.56	1.00	-4.36	5.30
			II-1	5.03*	1.40	0.01	.69	9.37
		HC 1	TI 1	-2.10	1.69	0.82	-7.34	3.15
			HCI 1	0.06	1.50	1.00	-4.60	4.72
			FI-1	0.53	1.72	1.00	-4.81	5.87
			II-1	5.09*	1.58	0.04	.19	9.98
		FI-1	TI 1	-2.63	1.74	0.68	-8.02	2.77
			HCI 1	-0.47	1.56	1.00	-5.30	4.36
			HC 1	-0.53	1.72	1.00	-5.87	4.81
			II-1	4.56	1.63	0.10	50	9.61
		II-1	TI 1	-7.10*	1.60	0.00	-12.14	-2.22
			HCI 1	-5.03*	1.40	0.01	-9.37	69
			HC 1	-5.09*	1.58	0.04	-9.98	19
			FI-1	-4.56	1.63	0.10	-9.61	.50



For both the pre- and post-testing results the Industrial industry seemed to differ the most when compared with the other industries with a score of negative five or more when compared to the other industries. This may be due to the cultural and educational exposure of the different types of industries. The medical, financial and more corporate industries usually have a more strict selection process in terms of qualifications and work experience requirements for management level due to the specific professions such as nursing or auditors etc. The individuals in these occupations, that are seen as more of a profession are usually exposed to more soft skill related topics and their reasoning skills are more developed, perhaps the reason for the higher baseline scores for EI, as opposed to the industrial industry which may not always have such stringent selection processes and exposure to topics related to EI and therefore could be the reason for the lower baseline observed for this industry.

# 4.4.3 Decision of formulated hypotheses

Table 4.8 below presents the decisions of the formulated hypotheses.

Table 4.8 Hypotheses Decisions					
Hypothesis	Decision				
H <sub>1</sub> Training has an effect on the EI of the	H <sub>1</sub> = Accepted				
participating managers.					
H <sub>2</sub> There is no significant difference in the	H <sub>2</sub> = Rejected				
participating managers' average EI scores					
across industries.					
H <sub>3</sub> There is a significant effect size of EI	H <sub>3</sub> = Accepted				
training across industries.					

### 4.5 DISCUSSION

The purpose of the study was to determine whether EI training could affect the level of EI of the participating managers. The study also wanted to determine whether any differences existed when comparing the EI scores of different industries. Through conceptualising the effect of EI training and development on leaders across various



industries from a theoretical perspective, a better understanding of EI was obtained which served as the foundation of the study. Through the use of a pre-test / post-test design the start and end level of EI for the participating managers before and after the EI training intervention was determined and changes in EI were identified.

As seen in the results presented, EI training had a significant effect on the EI scores of participating managers. However, significant differences in the baseline scores of participating managers were found across industries as some started with lower initial scores than other industries. A significant effect size attributed to EI training was observed across industries regardless of the initial industry EI baseline scores. This chapter discusses the main findings of the study obtained from the results seen in chapter 4.

- The results suggest that EI training does have a positive and significant effect on the participants in the study.

  Eive different industries were rated on nine dimensions of EI. By rating the
  - Five different industries were rated on nine dimensions of El. By rating the participating managers before and after the intervention through a 360 assessment, changes in El skills could be measured.
- The results found that significant changes occurred across the participants' average EI scores on all the instrument's nine items as well as overall EI score.
  - The highest and lowest scoring items both stayed the same. The lowest being Conflict Management and the highest being Self-motivation. The reason for this could be that self-motivation is self-dependent whereas conflict management involves interactions with others. A manager is better able to control their response and motivation level to some degree. In contrast within a conflict situation the manager does not have control over the other party and their response. A conflict situation is also more prone to negative emotional responses as individuals do not like situations of disagreement. The level of EI of both parties also impacts a conflict situation more than it would necessarily in a self-motivation situation. Nonetheless, all dimensions increased after the EI intervention, suggesting that the intervention had a positive effect across all dimensions and EI skills of the participating managers were improved.



 In terms of the comparison across industries, results showed a significant increase across all industries.

This suggests that regardless of the organisational setting EI skills of the various managers were improved, supporting the finding that the training intervention was in fact responsible for the increase in managers' level of EI.

Supporting of the findings of Nelis *et al.* (2009) the results of the current study also found that regardless of the industries' starting manager EI, an increase in skills was observed. This supports the view that the benefits after EI training are not dependant on the baseline of individuals' EI before an intervention.

- What was interesting in the results were the significantly different industry average scores before and after the training intervention.
  - All industries had similar EI baselines in terms of their range of differences before the intervention, with the exception of the industrial industry. This may be due to the lack of formal education observed within this industry. Most employees had lower qualifications than the other industries, although the same level of growth was seen across the different groups. This further supports the findings that the training intervention was responsible for the growth in manager EI skills and not the baseline EI of the manager.
- However, despite those significant baseline differences the study found no significant difference in the positive increase of the participating managers' overall El scores, providing evidence that El training does effect the level of El regardless of the participating manager's industry.

### 4.6 CONCLUSION

This chapter covered the results obtained and provided a brief discussion and interpretation thereof. The sample description, descriptive as well as inferential statistics were presented. The instrument was found to be reliable within a Cronbach Alpha value above the acceptable level. A comparison of the different industries that participated in the study with regards to their pre-test and post-test scores was presented. The chapter is concluded with a discussion of the main findings of the study.



# **CHAPTER 5: CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS**

# 5.1 INTRODUCTION

This chapter serves to provide a summary of the results obtained through the research conducted. Conclusions based on the research objectives of the study are drawn and the limitations of the study are discussed. Finally, recommendations for practice and future research will be covered to conclude the chapter.

#### 5.2 SUMMARY OF THE STUDY

This section covers a summary of the entire study. The study was separated into five chapters dedicated to a specific step in the research process. A summary of each chapter is presented below.

# Chapter 1: Introduction

Chapter one introduced the topic of EI and presented the background of the study. The problem and purpose statement were stated and the research objectives set to guide the research process. The academic value and contribution to the files were clarified.

#### Chapter 2: Literature Review

Chapter two focussed on conceptualising the topic of EI based on the existing research and other relevant sources available related to the study. The concept of EI, the different models, the role and importance of EI training as well as trend in EI were discussed.

### Chapter 3: Research Methodology

Chapter three covered the research paradigm, approach, design and data collection and analysis process. Furthermore the quality and rigour of the research design as well as the importance of research ethics were conveyed.

# Chapter 4: Results and discussion

Chapter four focussed on the hypotheses set as well as the sample description. This section of the study also presented the results obtained through descriptive and inferential



statistics run. In conclusion of this section the results were discussed focussing on the main findings obtained.

Chapter 5: Conclusion, Limitations and Recommendations

Chapter five presents the conclusions drawn based on the results obtained through analysis with the aim of addressing the research objectives set. The limitations of the study are presented as well as recommendations for practice and future research. The study is finalised with concluding remarks to inspire future research studies in this field.

# 5.3 CONCLUSIONS

Conclusions in terms of the first objective: to conceptualise the effect of El training and development of leaders across industries from a theoretical perspective.

The first objective related to the literature review was to gain a better understanding of the concept of EI. It can be concluded that EI has been found crucial within leadership, but no consensus has been found on a preferred definition or model to be used. Literature also had conflicting views on whether EI can be increased, especially in adulthood.

Conclusions in terms of the second and third objective: to determine the level of El in a sample of leaders before and after a training and development intervention.

The second and third objectives of the study were to determine the level of participating managers' EI before and after the intervention. A conclusion can be drawn that the level of EI before as well as after the intervention was obtained through the use of a pre-test / post-test 360 assessment that resulted in quantifiable and comparable EI scores.

Conclusions in terms of the fourth objective: to determine the effect that the El training and development intervention had on the sample of leaders.

The fourth objective was to determine the effect that the EI training intervention had on the participating managers. A conclusion can be drawn that the EI training intervention had a positive effect on the level of EI of the participating managers overall. The increased level of EI was also found to be sustainable almost a year after the intervention took place.



# Conclusions in terms of the fifth objective: to conduct a comparison of the outcome of the El training and development intervention across industries.

The fifth objective was to determine whether differences existed when comparing the EI scores of the different industries participating in the study. A conclusion can be drawn that even in the presence of different start and end EI scores, no differences were found when comparing the different industries. The conclusion can therefore be made that regardless of industry and initial EI levels of the participating managers, the EI training intervention resulted in an overall increase on the level of EI overall.

# **5.4 LIMITATIONS**

The following limitations were noted:

- A larger sample and the inclusion of more industries for comparison purposes would be beneficial for future studies.
- A pre-experimental design with a control group could also add to the findings of future studies.
- A cross-sectional design could have been used in a longitudinal or follow-up time series design to gain long-term data.
- The use of more statistically advanced techniques could also be considered in future.
- The use of a registered instrument in measuring pre- and post- intervention changes could be beneficial through the use of more items in measuring the various sub-dimensions of EI.

### 5.5 RECOMMENDATIONS

#### 5.5.1 Recommendations for Practice

• The findings are significant for practice as the results show return on investment for companies on the training intervention implemented. This should encourage organisations and individuals to take EI training more seriously and to continue to increase the frequency of EI training as it has been shown to have a significant impact for both the company as well as at an individual level.



- Business could also focus on the lowest scoring variables as topics for EI training, namely: conflict management, stress management and interpersonal relationships in terms of managing various personalities.
- Businesses should conduct follow-up sessions to sustain the growth seen.
- Through conducting annual 360 assessments on the participating managers, long term progress could be tracked and also serve as a way of keeping the participating managers accountable to continue growing and sustaining the positive changes made in terms of EI skills.
- To use the participating managers of a previous group to mentor a group that is currently on EI training, in so doing creating a company culture of high EI staff, through workplace learning.

#### 5.5.2 Recommendations for Future Research

- To include more industry based data collection in studies conducted as this adds to the practical value of the study.
- Future studies could determine whether a difference might exist between the level of EI of males and females.
- To conduct a longitudinal study or a time series design in order to obtain data on the long term effects of El training.

This chapter summarised the results of the study and covered the main objectives of the study. The imitations of the study as well as recommendations were discussed in concluding the chapter.

# 5.6 CONCLUDING REMARKS

The current study showed that EI can be increased across industries regardless of the EI baseline the individuals started with before the intervention. The findings support the use and effectiveness of a once-off EI training intervention with supportive follow-up mini-interventions such as projects, coaching and meetings to ensure long-term sustainable change in the growth of manager's EI skills. This ultimately results in a return on investment for the organisation's investment, which further emphasises the exciting future of EI training and the value it adds. This study will hopefully inspire future research in this field.



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