**University of Cape Town**

School of Management Studies

# Improving Emotional Intelligence and Developing Servant Leadership Skills: An Outcome Evaluation of Life Choices' Leaders' Quest Programme

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**COMPULSORY DECLARATION**

This work has not been previously submitted in whole, or in part, for the award of any degree. It is my own work. Each significant contribution to, and quotation in, this dissertation from the work, or works of other people has been attributed, cited and referenced.

Signature: ……  Date: ……

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## EXECUTIVE SUMMARY

This dissertation presents an outcome evaluation of the Salesians Life Choices' Leaders' Quest programme. The programme targets youth from economically disadvantaged schools in the Cape Flats, and engages with learners during their final two years of high school as well as providing support for an eased transition from school to university, college or employment.

Students are exposed to various activities that have been developed to help each individual achieve the programme's goals and objectives. These include developing students' emotional intelligence (EI), improving academic grades, and establishing leadership qualities; helping learners enrol in tertiary education or to obtain employment; and to assume meaningful leadership positions. The organization has been implementing the programme since 2013 and makes continuous attempts to improve elements of the intervention to better serve participants.

This evaluation assesses causal mechanisms and assumptions of the intervention against the evidence presented in social science research, and investigates three outcomes based on data collected for the pilot cohort and a control group between 2013 and 2015. The method of analysis includes primary and secondary data collected on measures of an EI tool and a servant leadership survey, as well as information obtained via questionnaires. Quantitative research methods were employed and data were explored using descriptive and inferential statistical analyses.

Main findings include no significant improvements in EI when control group measures are included in analyses. However, results show small successes in the form of servant leadership values, and findings highlight the programme's small but noticeable accomplishment in instilling an empowered spirit in targeted youths, arguably creating a foundation for the goals that the organization aims to achieve. In addition, results indicate a considerable difference between programme and control groups in successful enrolment rates at tertiary institutions. Further comparison between group conditions investigating successful employment emphasizes the programme's effectiveness in addressing the needs of each programme participant, whether related to enrolment in tertiary education or securing employment. Possible reasons for non-significant or inconclusive results are also presented.

The report acknowledges that the evaluation encounters limitations, the most challenging of which include the small sample size for which data is available. As a result, some analyses are underpowered. The consequence of this is that for some analyses the effects of practical importance are difficult to detect.

Key recommendations encourage programme staff to reconsider the causal pathways on which Leaders' Quest is designed in order to maximise programme impact; to intensify programme activities focussed on theoretical and practical learning of servant leadership; and to possibly scale up programme components, such as tutoring and coaching elements, for which extremely positive results have been obtained. In addition, it is suggested that Life Choices continues its monitoring of intervention groups, and continues to incorporate control conditions, in order to explore the programme's long-term impact.

# TABLE OF CONTENTS

## LIST OF TABLES

## LIST OF FIGURES

# CHAPTER 1: INTRODUCTION

South Africa is well-known for successfully achieving a peaceful transition to democracy in 1994. However, the country has lately also become increasingly infamous for its economic and social challenges. High rates of persistent poverty, inequality and unemployment plague a large proportion of South Africa's people, and this is evidenced by data collected on the country's condition, indicating a 56.8% poverty headcount in 2009, and a 25.5% unemployment rate in the third quarter of 2015 (Statistics South Africa, 2015). Population growth, while indicative of progress in reducing the mortality rate specifically linked to HIV and AIDS, adds to the urgency for improved economic policies and strategies to address the challenges presented by unemployment.

The onus is on South Africa's leaders to amend and, more importantly, to implement economic policies towards creating a more inclusive economy in order to improve economic growth. According to Clem Sunter (Africa's Advertising and Marketing Mouthpiece, 2015) new generations of South Africa's population need to be encouraged and enabled to become entrepreneurs, and establish and grow small businesses to initiate as well as boost sustainable job creation. Government engagement to guide this process calls for appropriate leadership. Similarly, leadership skills are a prerequisite for individuals setting out to fulfil entrepreneurial endeavours (Africa's Advertising and Marketing Mouthpiece, 2015).

Traditionally, leadership has been about the willingness to take responsibility and be accountable in the small as well as the large contexts, the private as well as the public spheres. More recent developments have added to this notion. The opinion that emotional competence contributes towards efficient leadership qualities is a widely accepted belief amongst leadership trait theorists (George, 2000). According to Goleman (2004), "The most effective leaders are all alike in one crucial way: they all have a high degree of what has come to be known as emotional intelligence" (p. 1).

The Salesians Life Choices organization identifies ineffective leadership as one of the country's main barriers to addressing social and economic challenges. In response, the Leaders' Quest programme was designed to reveal and tackle the root problems of an unequal society. Overarching beliefs are that emotional intelligence is a key component

towards developing effective leadership skills (Goleman, 2004); and that improved educational opportunities are needed to grow more effective leaders who, in turn, will be able to create the desired social and economic change this country needs.

As such, the Leaders' Quest programme aims to empower youths from the Cape Flats to master EI skills that are often neglected in conventional school settings (Leaders' Quest, 2013). The intervention provides theoretical leadership training modules: training core EI skills, and instilling servant leadership values and ethics, which are then practised in real-life experiential activities and refined through supportive networks consisting of mentors, academic tutors and leadership coaches.

The goal of the following evaluation is to investigate whether the Leaders' Quest pilot programme was able to successfully achieve three of its stipulated and envisaged outcomes: a short-term outcome aimed at increasing EI, a medium-term outcome focussed on establishing servant leadership skills, and a longer-term outcome on improving enrolments in tertiary education or job placements.

This chapter introduces the Salesian Life Choices organization and presents the Leaders' Quest programme in detail. The underlying assumptions of the programme's theory are described and the plausibility of these assumptions is investigated. The chapter concludes with evaluation questions that will be answered by this report.

**Salesian Life Choices**

Salesians of Don Bosco (the world's biggest youth organization) are known for their educational mission and giving a hand-up, rather than a hand-out (Life Choices, 2013). Life Choices was established in 2005, after gaining support from the President's Emergency Plan for Aids Relief (PEPFAR), to start a youth development project in the Western Cape of the Republic of South Africa. The intention was to develop and implement interventions addressing social ills, such as HIV infection, teen-pregnancy, violence, drug-abuse and high levels of unemployment experienced by South African youth in the Western Cape.

Firmly grounded in the Christian tradition of service, Life Choices is a non-profit organization promoting interventions that are implemented long-term with the aim of

having a lasting and beneficial effect on the lives of young individuals. The organization believes that individuals, regardless of gender, have the potential to unlock appropriate solutions to social ills and is of the opinion that the youth can be nurtured to reveal this potential. Based on this conviction, Life Choices runs five intervention programmes that address critical areas of social development (depicted in figure 1). These programmes focus on improving family stability, health, education, leadership skills and job placements. Life Choices targets these as the necessary building blocks to empower individuals to address deep-seated social challenges and better enable youths to thrive. One of these five platforms, through which Life Choices encourages youth development in the Western Cape, is called Leaders' Quest. This programme centres on the improvement of servant leadership skills and is the focus of this evaluation report.

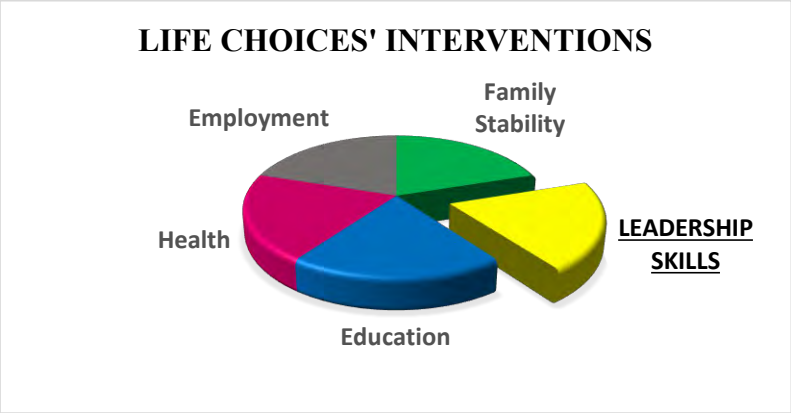


*Figure 1*. Life Choices' five intervention programmes address critical areas of development. Leaders' Quest targets servant leadership skills and is the focus of this evaluation.

**Programme Description: Leaders' Quest**

Information for this programme description was collected from various sources. These included the Salesian Life Choices annual report for 2013 (Life Choices, 2013) the organization's pilot report for 2013 (Leaders' Quest, 2013), the organization's website (www.lifechoices.co.za) and information obtained via one-on-one meetings with the organization's Managing Director, Sofia Neves.

In 2013, Leaders' Quest was implemented for the first time in 32 schools in the Cape Flats. The programme targets youth from economically disadvantaged schools in Athlone, Bonteheuwel, Bridgetown, Crawford, Gugulethu, Hanover Park, Heideveld, Lansdowne, Manenberg, Nyanga, and Philippi as its primary beneficiaries. Sofia Neves, Life Choices' Managing Director, currently manages the programme together with five coaches who oversee and run each of the programme activities. Training, coaching and reflection takes place at the Life Choices' offices in Lansdowne as well as at each of the individual schools participating in the programme.

The primary aim of the programme is to develop and improve learners' EI. The assumptions are that improved EI is linked to enhanced academic performance and leadership skills, and that increased EI in combination with improved school grades will lead to improved access to tertiary education or employment. It is further envisaged that these developments will provide a solid foundation from which individuals are able to enter positions of leadership in their schools or communities and will thus make a meaningful contribution to society upon completion of the programme. An impact theory is illustrated in figure 2, to illustrate cause and effect assumptions on which Leaders' Quest is based. This impact theory was developed in a participatory manner together with Life Choices' Managing Director, Sofia Neves, and illustrates the programme's primary, medium-term and long-term objectives: developing students' EI, improving academic grades, and establishing leadership qualities; helping learners enrol in tertiary education or to obtain employment; and fulfilling meaningful leadership positions, respectively.


*Figure 2.* Variable-oriented diagram depicting Leaders' Quest' impact theory.

Life Choices takes an action-learning approach (Pedler, 2011) in that the organization regularly collects data on the Leaders' Quest programme, and engages in reflection processes to understand the data and its implications in terms of the organization's progress towards achieving programme outcomes. The pilot programme's first year was evaluated by a Masters student working with Life Choices in 2013 (de Goede, n.d.). A hardcopy of this report was obtained from the organization's Managing Director. This reflection and learning process led to improved planning and action for subsequent cohorts signing up for the programme. Continued efforts to monitor the programme illustrate the organization's dedicated pursuit towards constantly improving the intervention.

Originally, Leaders' Quest was designed to run for 24 months, targeting youth in their final two years of school - Grade 11 and Grade 12. This has been adjusted and currently includes an additional 6-month period after students complete their matric year. These 6 months aim to ease the transition into tertiary education or into employment. Therefore, the Leaders' Quest programme is presently structured to run over a course of 30 months. During this time period, students are exposed to various activities that have been developed to help each individual achieve programme outcomes.

**Year One Activities**

Year one is structured around core leadership training modules and five experiential activities presented sequentially:

**Leadership Training**

A theoretical leadership training component exposes learners to various leadership and management theories, with an emphasis on helping students to see how they might apply these lessons to their daily lives. Grade 11 learners participate in six leadership training sessions, conducted one Saturday per month during term time from 10:00 – 16:30. Each session incorporates one of six key modules assumed to be fundamental to the improvement of emotional intelligence. These elements include self-awareness, self-management, motivation, empathy, social skills, and innovation skills. The theoretical content that is learnt through these modules is then applied throughout

various experiential activities included in the first year of the Leaders' Quest programme, described below.

**Diversity Exchange**

In the diversity exchange activity, students are paired with one another, making sure that each pair is made up of two individuals from different cultural backgrounds. The activity encourages participants to experience a day in the life of another person from a different background and aims to improve acceptance, understanding and greater appreciation for the many different cultures that make up South African society (Leaders' Quest, 2013).

**Photography Exhibition**

A photography exhibition designed around the concept of hope requires students to take photographs highlighting the beauty of their communities. Groups of students are tasked to design, implement, manage and evaluate an exhibition at which these photographs are displayed. The aim of this activity is to focus on the positive instead of highlighting the negative and is meant to alleviate stress, improve overall wellbeing and encourage productivity (Leaders' Quest, 2013).

**Job Shadowing and Volunteer Work**

A job shadowing activity takes place for two days during the July holidays. Combined with career guidance and support from coaches, this encourages learners to start thinking about their futures and possible careers. Students are required to travel via public transport and expected to raise the money needed for bus or train fare. They are also taught about punctuality and how to conduct themselves in a proper fashion in a work setting. Additionally, a volunteer work component is completed which is intended to improve learners' intrinsic motivation towards community upliftment (Leaders' Quest, 2013).

**Community Outreach**

Finally, to harness innovation skills, students are required to design and develop a community outreach project in groups, which is then presented to an audience of no fewer than 100 people. The most promising projects are chosen and teams must implement their projects in their schools or communities. A key component of this

activity is choosing a group member to lead the team, and for the rest of the group to successfully follow that person's lead. A core lesson of this activity is that one must be able to take instructions and follow others' leadership in order to be an effective leader on other or future tasks (Leaders' Quest, 2013).

#### Reflection

Programme coaches conduct one-hourly, weekly reflection sessions with learners at their respective schools. These sessions are aimed at helping students to consolidate the core learnings of leadership training modules and intend to encourage students to reflect on and share their experiences of the various experiential activities in small groups (Leaders' Quest, 2013).

### Year Two Activities

#### Tutoring and Mentorship

The second year of the intervention is typically students' final year in high school. Although academic training is offered regularly, the intensity and frequency of programme activities is decreased during this time, due to the fact that academic pressures are likely to increase. This year focuses primarily on partnering each student with professional individuals in junior or senior management positions in a field of the student's choosing. Life Choices recruits mentors for participants by sending out email invitations to its networks. Interested individuals respond to the invitation and are interviewed by programme staff before attending an induction training day and committing to the mentorship programme. This professional fulfils mentorship responsibilities throughout the rest of the year. In addition, participants are required to participate in some form of community leadership committee, whether at school or within the community, to put into practice all the skills learnt throughout the programme (Leaders' Quest, 2013).

An organizational diagram illustrates the functions and activities that a programme is supposed to perform to successfully engage with its target population in order to produce the intended social change (Rossi, Lipsey & Freeman, 2004). These functions and activities and the necessary resources to achieve these functions and activities are depicted in figure 3. A service utilization diagram depicted in figure 4 illustrates the

path that participants follow from first to last contact with the programme. Together, the programme's organizational plan and the programme's service utilization plan provide a detailed overview of the expected steps deemed to be necessary for the programme to work (Rossi et al., 2004).

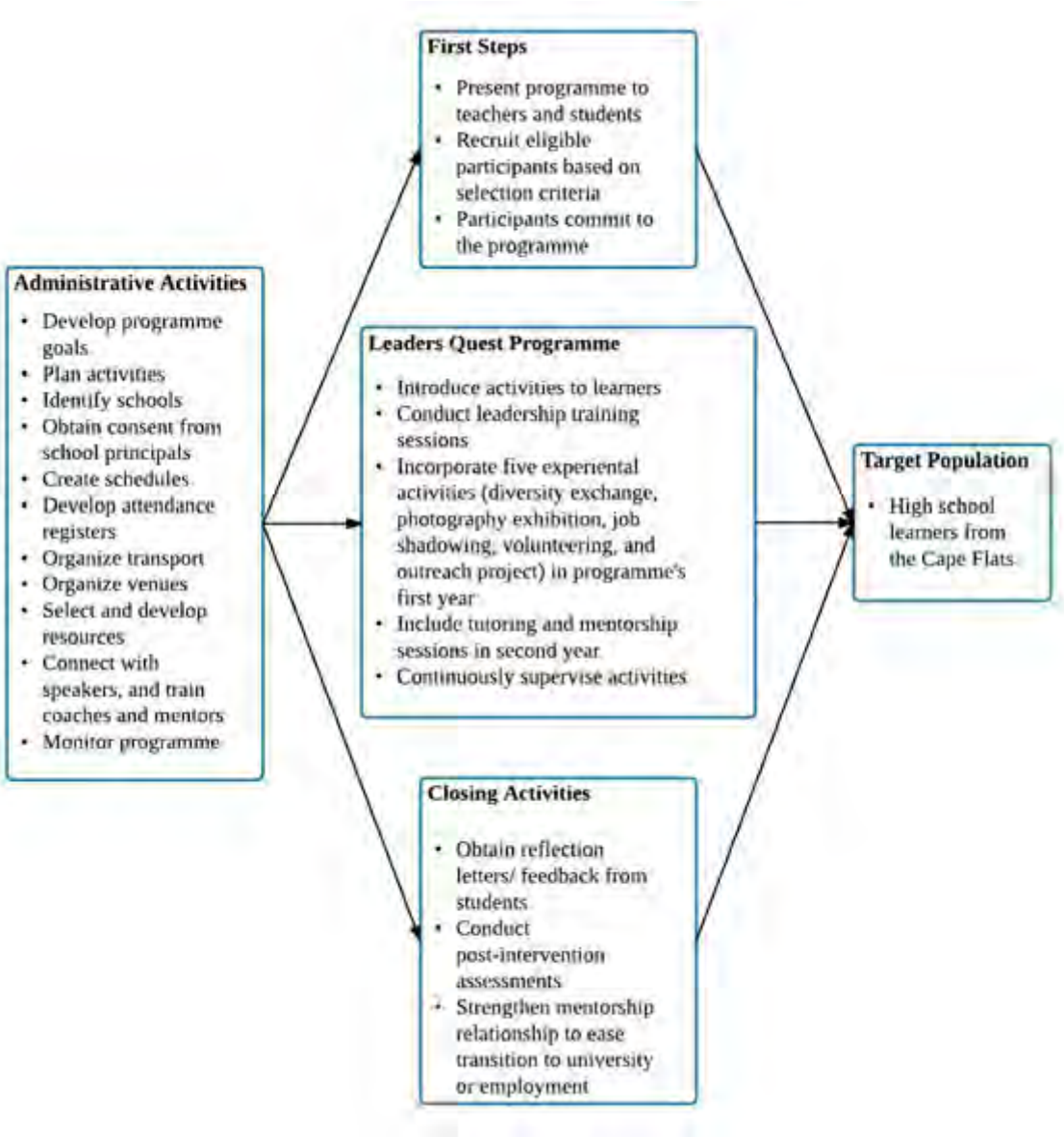


*Figure 3.* Leaders' Quest organizational plan.

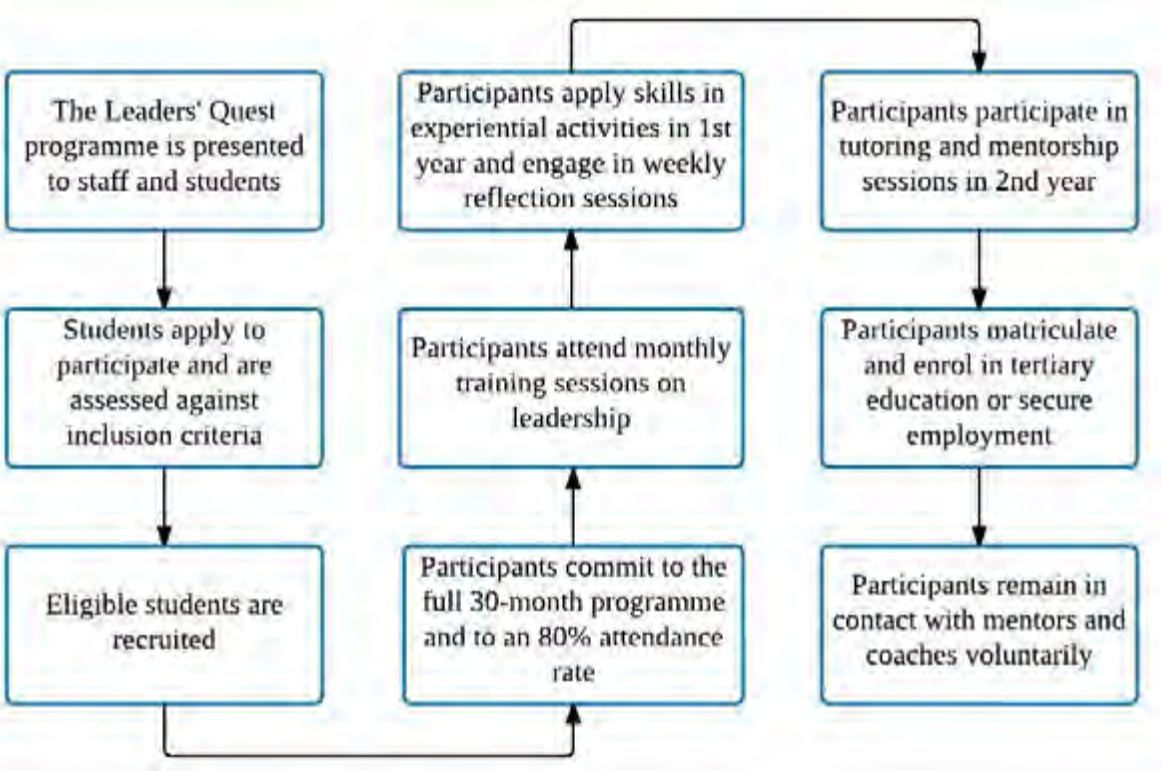


*Figure 4*. Service utilization diagram illustrating the path that participants follow from first to last contact with the programme.

**Programme Theory**

Establishing programme theory is regarded by many practitioners as a key factor in successful programme development. The purpose of programme theory is to link inputs, processes, outputs and outcomes to produce a desired social impact. Once a model is developed it provides a guide to inform strategy and tactics towards achieving programme goals (Rogers, 2008). Oftentimes, programme theory is depicted as a simple, linear logic model.

At present the Leaders' Quest programme does not have a documented programme theory. The work Life Choices does through its intervention is multi-layered, and a simple linear model does not appropriately capture the complexity of programmes that focus on human services incorporating various components (Rogers, 2008). However, the logic model functions to guide, organise and simplify, and can be used to help reveal and depict implicit programme theory and assist in improving programmes (Jacobs, Barnett & Ponsford, 2010). Furthermore, it is vital for stakeholders to have a clear and

mutual understanding of programme assumptions and expectations regarding how and why particular interventions will address specific problems. As such, creating a visual logic model helps to produce shared understanding (Cloete & Auriacombe, 2014).

Table 1 on page 20 displays a simple logic model that has not been reviewed by programme staff. This model was developed by drawing on various conversations with the organisation's Managing Director, and in combination with the programme's impact theory as well as the programme's organizational and service utilization plans.

The structure of the model separates the programme's underlying assumptions into components that are connected by logical links to provide a framework to easily interpret information about how the programme intends to connect activities with positive outcomes (Goldman & Schmalz, 2006).

Table 1
*Implicit Logic Model: Activities and Intended Outcomes*

| Activities | Short-Term Outcomes | Medium-Term Outcomes | Long-Term Outcomes | Impact |
|---|---|---|---|---|
| ***Year 1*** | | | | |
| Activity 1: Leadership Training<br><br>Self-awareness<br>Self-management<br>Motivation<br>Empathy<br>Social skills<br>Innovation skills | Knowledge on servant leadership;<br>Developing EI | Developing servant leadership skills | | Servant Leaders |
| Activity 2: Experiential Activities<br>Diversity exchange<br>Photography exhibition<br>Job shadowing<br>Volunteering<br>Community outreach | | Application of leadership skills;<br>Increased EI | | |
| Reflection sessions | | Consolidation, reflection and sharing of experiences | | |
| ***Year 2*** | | | | |
| Activity 3: Tutoring | Access to academic assistance | Improved academic performance | Matriculation;<br>Enrolment in tertiary education or securing employment | |
| Activity 4: Mentorship | Access to support networks | | Eased transition from school to university or work | |

## Plausibility of Programme Theory

Existing research on EI and its role in increasing access to opportunities and developing servant leadership skills was reviewed to evaluate the plausibility of the Leaders' Quest programme theory.

### Literature Review

A detailed literature review was conducted to assess whether evidence is available to support the programme's assumptions and proposed causal mechanisms. The review focussed on finding existing research to support three main assumptions underlying Leaders' Quest's programme theory, namely that:

1. EI can be nurtured;
2. EI is linked to improved academic performance; and
3. EI is linked to effective leadership.

### Method

Academic databases were accessed via the University of Cape Town's (UCT) electronic library and an online search of relevant documents was conducted using platforms such as Google Scholar, JSTOR and Ebscohost. Where possible, search parameters were set to return peer-reviewed research. Key words and phrases incorporated in the search included "emotional intelligence", "improving emotional intelligence", "emotional intelligence" AND "youth", "emotional intelligence" AND "leadership" and "servant leadership".

## Literature Review

### Conceptualizing EI

The Leaders' Quest programme has conceptualized its primary short-term objective as improving students' EI. There is much debate amongst researchers with regard to an accurate definition of EI, its terminology, the theoretical framing of EI, and the techniques in which it can or should be measured (Dulewicz & Higgs, 2004). Three primary models are frequently used to understand and assess this construct. The model by Salovey and Mayer (1990) describes EI as processes and abilities that enable

individuals to judge and regulate emotion, and maintains that emotions influence thought and action; Goleman's model proposes a framework incorporating four competency-based components that encourage managerial performance, namely, "self-awareness, self-management, social awareness, and relationship management" (Goleman, 2006 p. 27); and Bar-On's mixed model defines the construct as being made up of several overlapping emotional and social components that influence behaviour (Bar-On, 2006). Despite various frameworks used to understand the concept, "researchers agree that emotional intelligence embraces emotional awareness in relation to self and others, professional efficiency and emotional management" (Akerjordet & Severinsson, 2007 p.1405).

Initially, researchers attempted to understand EI by describing the qualities corresponding to EI. By developing an operational definition for it, attempts were made to devise reliable ways to measure these characteristics (Mathews, Zeidner & Roberts, 2004). This proved to be problematic and where Mayer, Caruso and Salovey (1999) saw EI as a clear set of skills for processing emotion, others believed in a broader definition of personal functioning less firmly tied to emotion (Bar-On, 2006; Boyatzis, Goleman & Rhee, 2000). Conceptual disagreements around EI as an environmental versus an inherited set of traits are therefore also reflected in disagreements regarding measurement of the construct. The view that EI is a clear set of fostered skills tends to promote the use of performance scales. On the other hand researchers who support a broader definition of EI as encompassing inherited skills as well as learned behaviours favour assessments that focus on self-reports and subjective gauging of abilities and personality and, therefore, assume a mixed model of EI that incorporates both emotional abilities and nurtured traits.

The various ways in which EI is conceptualized provide difficulties in separating EI from other personality and ability constructs. For example, Zeidner, Roberts and Matthews (2002) argue that many of the measures used for EI overlap with those for personality constructs, such as the Five Factor Model (McCrae & John, 1992), which encompasses the five broad areas of human personality (openness to experience, conscientiousness, extraversion, agreeableness, and neuroticism).

Researchers have also maintained that intellect, emotion and motivation go hand in hand and are a set of interlinked and interdependent processes which determine personal growth. In addition, it is claimed that emotion and motivation support learning. This view considers EI as being made up of a set of processes that assist in adjusting to situations that require emotionally regulated responses. The view is based on the assumption that emotional skills are under constant development, which suggests that the construct itself is a product of prior training. To add to this, research has highlighted how experiential learning in specific contexts furthers processing on an emotional level, which promotes an EI that adapts to circumstances experienced by a person (Zeidner, Matthews & Roberts, 2001).

**Resulting Perspectives of EI and Social Intelligence (SI)**

According to Zeidner et al. (2002) the vast majority of programmes claiming to be focussed on EI are social and emotional learning programmes (SEL programmes). These generally aim for a broad spectrum of outcomes achieved via education, instruction, and activities targeting social and emotional knowledge, skills and competencies. Along the journey of emotional learning, aptitudes, attitudes as well as values are established that are important to the development and refinement of emotional competence. Emotional learning can take place in the classroom, through extra-curricular activities, by being exposed to a supportive school environment and peers, and through support by and encouragement of parents, caregivers and community members (Zeidner et al., 2002). It is Mayer and Geher's (1996) hypothesis that educating individuals whose emotional competencies are poor, can result in improved abilities to understand, verbalise and regulate their feelings. However, there is little scientific evidence to demonstrate how this goal might be achieved. Behavioural goals that are most often targeted in programmes aimed at improving EI include problem solving techniques, emotional awareness and understanding emotions, impulse control, regulating emotions, stress management and coping with negativity, perspective and compassion (Zeidner et al., 2002).

Although it was initially believed that EI equates a specific social intelligence, it was later suggested by Mayer, Salovey, Caruso and Sitarenios (2001) that emotional and social intelligences were not truly distinguishable from one another. They advanced the

idea that educational programmes for change might be wise to target social behaviours, in order to enhance emotional awareness.

As such, overlaps between EI and Social Intelligence (SI) have caused much debate amongst authors. Research tentatively attributes the interpretation of non-verbal cues and social skills to SI. However, no conclusive parameters have been established in terms of what competencies or skills are linked exclusively to this construct, making it difficult to separate EI from SI (Keating, 1978). As a result, great difficulties arise upon wishing to draw verifiable conclusions when looking at factors that dominate EI development.

Much research exists that supports the importance of specific socialised emotional competencies such as emotion perception and understanding, and self-regulation. This body of work has recently been reviewed and currently the thinking is that socialisation processes are key to affecting the development of EI competencies. Little appears to be known about the socialisation processes of EI, however, research published by Zeidner et al. (2002) highlight four main socialisation processes that have been claimed to aid the development of EI in childhood. The research shows that:

1. Emotion regulation and compassion appear to be linked to the quality of early bonding between infants and parents.

2. The extent to which parents or caregivers are able to express themselves effectively, and show sensitivity to children's emotional needs, seems to be linked to empathy and emotional competence, balanced social behaviour, compassion, the ability to appropriately respond in emotive situations, and stress management.

3. Whether adult guidance is authoritative or permissive, supportive or neglectful, and either guiding or controlling, seems to be linked to effective emotional self-regulation, psychosocial skills, appropriate emotional response and coping skills.

4. Accessible and available elders and honest communication seem linked to the development of children's emotional awareness and regulation, and social skills.

Most of these findings are closely linked to the parent-child relationship and although it could be argued that the mentorship and coaching elements of Leaders' Quest provide positive role-models for these youths, it is questionable whether relationships at the adolescent stage of a learner's life will be able to provide the same foundation for developing EI.

**Nurturing and Developing EI: The Evidence**

As a consequence of the studies referred to, the literature surrounding EI research is divided in its opinion on whether EI can be developed. Authors appear to support the possibility of generating EI when it is conceptualized as a trait or competency. However, researchers seem to be sceptical about the likelihood of producing EI when the construct is understood as being ability-based (Dulewicz & Higgs, 2004).

Exploratory research conducted by Meyer, Fletcher and Parker (2004) investigated the impact of a programme aimed at enhancing intrapersonal and interpersonal elements of EI. Participating employees were measured before and after a one-day intervention using the Mayer-Salovey-Caruso Emotional Intelligence Test (Meyer et al., 2004). The measure indicated a small, positive effect as a result of the intervention.

Research by Nelis et al. (2009) investigated the impact of a theoretical EI training programme on young adults. This intervention was built on Mayer and Salovay's four-domain model and consisted of two and a half hour sessions, once a week for the duration of 4 weeks. Participants took part in a measure prior to the intervention, immediately after training had been completed and six months after the intervention ended. Findings indicated significant advances in emotion identification and management that were maintained six months after completing the intervention.

Dulewicz and Higgs (2004) explored whether an intervention was successful in developing EI in middle managers. EI was measured using the Emotional Intelligence Questionnaire (EIQ) before the intervention and then again six months after training was completed. EI training sessions were held once a week for four weeks. Participants were rated by their managers on their job performance to produce a performance measure. Findings indicated significant improvements on measures of self-awareness, interpersonal factors, and resilience. However, no improvements were observed on

measures of intuition or conscientiousness. Additional investigations by the same researchers suggest that intuitiveness and conscientiousness can be enhanced via experiential activities.

Latif (2004) studied the success of developing EI as an attempt to improve managerial skills in postgraduate students. His study was based on social learning theory and emphasizes the importance of incorporating theoretical as well as experiential activities in an intervention to promote behaviour change. The intervention focussed skill assessment, learning, analysis, practice and application and was conducted over one semester. Students' level of EI was measured at the beginning of the semester, prior to the intervention, and again at the end of the semester and intervention. A 25-item questionnaire, adapted from Weisinger (1998 as cited in Latif, 2004) to assess self-awareness, self-regulation, interpersonal skills, empathy and motivation was used as a measurement tool. The questionnaire explored self-awareness, emotion regulation, empathy, motivation and interpersonal functioning. Findings indicated a significant improvement at second measurement. However, the study also noted that individual willpower and determination played a vital role in developing managerial skills related to EI.

Thus, there is some evidence that even short periods of training can successfully improve some emotional abilities, yet other aspects, such as emotional understanding, may not respond as promptly. Researchers tend to conclude that EI can be moderately developed and they highlight that some elements of EI are more 'pliable' and responsive than others (Nelis et al., 2009). Results also seem to indicate that an approach combining theory and experiential activities works best to develop and enhance elements of EI (Dulewicz & Higgs, 2004). However, none of these studies incorporated a control group and, therefore, they are vulnerable to maturation and testing effects. As a result, the studies are limited in their ability to attribute improvements in EI exclusively to the interventions implemented.

## Links Between EI and Academic Achievements: The Evidence

The increased focus on and interest in emotional and social learning is thanks to the tenet that academic success rests on the pillars of emotional competencies. As a result, EI interventions lay claim to supporting listening skills, attentiveness, to instil a

responsible work ethic, to help curb impulses and to strengthen coping skills in the face of upsets or negativity (Zeidner et al., 2002). Researchers who support the EI construct maintain that the building blocks of academic learning are constituted of knowledge about oneself and one's peers, and the skills to apply this knowledge to effectively solve problems and deal with challenges (Schonert-Reichl & Hymel, 2007).

Goleman (2004) supports the notion that EI can be nurtured in individuals. However, the researcher suggests that interventions focussed on the development and improvement of EI are most successful when they are incorporated during childhood and notes that this development may become more difficult to accomplish at later stages in life. Dulewicz and Higgs (2004) support this claim and suggest that core competencies are most likely to be developed during childhood but that they are malleable and that appropriate interventions are able to target and cultivate these.

However, few examples, grounded in theory, seem to exist to illustrate successful interventions at school level (Dacre-Pool & Qualter, 2012). Despite this, research on academic success suggests that EI and emotional self-efficacy (ESE) are predictors for completing school successfully (Mayer and Geher, 1996).

Petrides, Frederickson and Furnham (2004) conducted a study in Britain with a sample of Grade 11 learners to investigate the links between trait EI, cognitive performance and academic success. Petrides' Trait Emotional Intelligence Questionnaire (TEIQue) and various personality questionnaires and reasoning tests were used in combination with school grades to assess participants. Findings suggested that trait EI played an important role in moderating the relationship between academic performance and cognitive ability and indicated that students with high scores of trait EI were less likely to drop out of school and engage in deviant behaviour. Furthermore, the study suggests that improvements in trait EI are significantly linked to academic performance and progress in students with low IQ (Petrides, Frederickson & Furnham, 2004).

A study by Parker et al. (2004), exploring the transition from school to tertiary education, alludes to various factors of EI as predictors of academic performance. Findings illustrate that learners with high scores of EI are more capable of coping with social and emotional difficulties associated with the transition from high school to

university or college, than learners with lower EI scores. In subsequent research, Parker et al. (2004) examined students on intrapersonal and interpersonal functioning, adaptability and stress management, using the Bar-On Emotional Quotient Inventory: Youth Version (EQ-i:YV) and learners' grade point averages. Findings confirmed that EI is a predictor in academic achievements and suggested that successful students demonstrate high levels of skill in terms of adaptability and stress management (Parker et al., 2004).

Thus, a small amount of research suggests that EI may, indeed, be associated with academic achievement, provided that great care is taken with regard to the assessment methodology (Parker et al., 2004). With regard to the Leaders' Quest intervention, however, it must be emphasized that the available literature primarily focusses on elementary school children, and that research on youth developments in the field seem to be less popular. As such, it is difficult to determine the strength of the link between EI and improved academic performance, specifically in the case of adolescents.

**Leadership and EI**

Kotter (1999) claims that true leadership rests on the abilities to develop a vision, improve strategies, build relationships and inspire others towards improvements and change. It is maintained that true leaders have a certain decisive approach balanced by an openness and an ability to admit mistakes, a propensity for objective decision-making and a vision that allows them to change course. This points to flexibility being a core strength. Under ideal circumstances the confident leader acts as guide, mentor, motivator and someone who can effectively convey the vision of the common goal to a team of co-workers. A person in a leadership position should be characterised by a reliable and balanced stance. There has to be a fair level of ability to engage and relate with others, move past negative competitiveness and be equipped to inspire and think creatively and laterally.

Studies show that technical expertise and IQ, however helpful, are of less importance than emotional and social intelligence in characterising effective leadership, specifically when the criteria include an outfit's work culture, the promotion of superior performance and attainment of results (Goleman, Boyatzis & McKee, 2001).

Historically, leadership may have been a top-down approach. However, with social changes leaning towards an inclusive teamwork approach, in the contexts where democracy is the framework in a given sphere, it is deemed to pivot on the relationship between those who are gifted to lead and those more inclined to be lead. The interpersonal engagement with the other is key, whether this is with one or with many (Palmer et al., 2001). As such, an important common denominator or trait of effective managers is a raised degree of emotional intelligence (Latif, 2004). Hughes, Thomson and Terrel (2009) support this claim in their observations that a lasting legacy is only guaranteed if there is a harmonious, interdependent and resonant connectedness between leader and followers.

Antonakis, Ashkanasy and Dasborough (2009) outline five major components included in the skill-set of effective leaders. These include:

> Developing collective goals and objectives; instilling in others a sense of appreciation and importance of work; generating and maintaining enthusiasm, confidence, optimism, cooperation and trust; encouraging flexibility in decision-making and change; and establishing and maintaining meaningful identity for the organization. (p. 252)

These components of leadership qualities encompass and build on emotional building blocks. Where leaders score highly on emotional competence, they are more likely to achieve any or all of these five outcomes.

Research published by Hughes et al. (2009), maintains that a lack of resources and time often present great stressors. Different situational contexts require leaders to draw on a variety of skills and abilities to respond as effectively as possible (Bass, 1991). Possessing established emotional and intellectual skills, however, a true leader is able to tap into his or her own resilience and this, in turn, filters down and motivates others to improved positions of compassion and perspective.

However, emotional intelligence can only be a valid predictor of effective leadership if leadership is conceptualised in a relevant way. Life Choices employs a definition for servant leadership based on research by Greenleaf (1977), which defines a servant leader as someone who serves their followers and the people around them by seeing to

their needs and ensuring development and growth in other individuals. Thus, while traditional perspectives on leadership include one person wielding most of the power in an organisation or a company, servant leadership differs from this view because it is understood as a sharing of power.

Servant leaders create vision, emphasize values continuously and make a concerted effort to promote the best in others. These leaders believe that involving everyone in the decision-making process creates a happier environment. As a result, individuals who are served, are more motivated, and have a greater sense of commitment and ownership. (Page & Wong, 2000). Accordingly, Greenleaf (1977) maintains that successful servant leaders give of their time and energy to enable and promote the learning, serving and growing of others. As such, this growth is not assessed by the amount of a leader's perceived power, but instead by a leader's ability and capacity to empower others.

Various authors have attempted to define and measure servant leadership. However, in order to confidently support the servant leadership theory as well as understanding precisely how EI is linked to the development of servant leadership qualities and skills requires further empirical research (Russel & Stone, 2002).

Despite this, similarities have been drawn between servant leadership and three of the four components of Mayer and Salovey's model of EI (Winston & Hartsfield, 2004). Overlaps appear to exist between servant leadership and a) perceiving emotions, b) reasoning with emotions and c) managing emotions. The recognition of these similarities emphasizes the potential for success that servant leadership development projects may have when incorporating and targeting EI simultaneously. Authors like George (2002) and Goleman (2004) give weight to this argument, claiming that EI, specifically emotion regulation, is a vital component contributing to efficient leadership.

### Implications for Leaders' Quest

A substantial array of theories and efforts to conceptualize emotional competency abound, from emphasising skills and competencies to shifting emphasis to person-situation interactions. None of these ideas completely settle the question about what

constitutes EI, and as a result of the perceived state of flux of the theories, EI and ways of measuring EI vary equally substantially (Zeidner et al., 2002). The Leaders' Quest programme addresses the construct by targeting and improving "self-awareness, self-management, social awareness, and social-management" (Life Choices, 2013), and as such, the programme falls under Goleman's (2004) definition of EI. This has certain implications in terms of appropriate instruments deemed fitting to measure the programme's progress in improving EI and essentially requires the assessment to incorporate a combination of emotional and social behaviours.

Despite the fact that some strides have been made toward greater insight into the way in which specific emotional and social competencies are developed, the origins of the many-sided construct of EI remain elusive (Davies, Stankov & Roberts, 1998). A family environment that is secure and emotionally open appears to be a good seedbed or starting point. However, it is risky to generalize further about the origin of EI in young individuals. It is difficult to quantify the relevant factors within the so called good family environment. Aspects like direct instruction, stable role models and minimal direct conflict could play major roles; but the question remains whether the chief ingredient might be the freedom for self-directed exploration and gaining of emotional knowledge. Expressions of EI are hard to define, and a child's balanced behaviour labelled as a demonstration of EI may simply be reflecting a greater set of social skills. It is proposed that greater amounts of systematic research are required to measure whether particular parental socialisation methods have an effect on emotional competencies (such as verbalisation, emotion regulation, and stress management) (Zeidner et al., 2002).

The multi-layered nature of highly individual emotional processes and capabilities, and the complexities in defining EI lead one to conclude that it is impossible to design one silver-bullet type of programme to address all processes. Furthermore, studies on EI have been conducted in mostly developed countries and the research available for review is therefore not entirely applicable to the South African context where, typically, a greater number of factors intersect to disadvantage significant sections of society.

Although literature on improvements in EI exists, and links between EI and academic achievement as well as leadership skills have been made, substantially less research

appears to be available to evidence the successful developing of EI as a result of a training intervention. Additionally, studies have a limited scope in attributing improvements to interventions, as a result of not including control groups against which improvements can be compared in their research designs. Therefore, internal validity of these research designs must be questioned when assessing the results of the research reviewed.

Finally, the research that has been published on this topic focuses to a large extent on socialisation processes as a pathway to increasing EI and emphasises the importance of clearly defining constructs that are to be developed or improved. Consequently, programmes such as Leaders' Quest, employing interventions to improve EI with the intention of impacting leadership outcomes, must consider how exactly effective leadership is being operationalised to achieve the best possible impact.

## Evaluation Questions

The objective of this dissertation is to investigate whether the Leaders' Quest programme has been able to achieve some of its short- medium- and longer-term outcomes. This is assessed by means of an outcome evaluation.

### Outcome Evaluation

An outcome evaluation gauges how well a programme is able to improve the social conditions it aims to address. Measuring programme outcomes is important for organizations to be able to improve programme processes and to demonstrate a programme's value. (Rossi et al., 2004). The following evaluation questions were formulated in collaboration with the programme's Managing Director. Final decisions on which evaluation questions to include were based on the availability of secondary data collected for the pilot programme in 2013 and 2014 and on primary data for participants that would be collected by this evaluator upon participants' programme completion in June and July of 2015.

#### Short-term Outcome

1) Has the Leaders' Quest programme increased EI as measured by Bar-On's EQ-i:YV measure?

1a. Have students' intrapersonal skills improved since participating in the programme?

1b. Have students' interpersonal skills improved since participating in the programme?

1c. Have students' stress management skills improved since participating in the programme?

1d. Do students exhibit improvements in adaptability since participating in the programme?

1e. Do students demonstrate improvements in general mood since participating in the programme?

1f. Do students display increased levels of total emotional quotient since participating in the programme?

**Medium-term Outcome**

2) Do learners demonstrate an increased knowledge/ improved attitude towards servant leadership in comparison to the control group?

3) Can an association be drawn between EI and capacity for leadership skills?

**Long-term Outcome**

4) Relative to students who did not receive the programme, were programme participants who matriculated at the end of 2014:

4a. more likely to enrol in tertiary education?

4b. more likely to secure employment?

4c. more likely to assume positions of leadership on campus or at work?

# CHAPTER 2: METHOD

## Research Design

Programme outcomes were evaluated using quantitative research methods.

This evaluation was designed towards the end of the Leaders' Quest 30 month pilot programme and builds on secondary data that were collected for treatment and control group participants over the course of the intervention. Data on measures of EI were collected at baseline and at one-year follow-up by a Research Masters student working with Life Choices in 2013. The data were used to evaluate the first year of the pilot programme. At the end of the programme's second year an external psychometrist collected follow-up data using the same measures. This data had not yet been assessed at the time that the current evaluation was designed.

Based on the availability of these secondary data, and due to the fact that participants were assigned to the treatment and control groups in a non-random fashion prior to programme implementation in 2013, it was determined that there had been a good chance of sampling bias. It was therefore decided that the most suitable research design to investigate changes in EI would be a non-equivalent control group, pretest-posttest design (including a mid-term measure). Figure 5 illustrates the treatment and control conditions, represented by T and C respectively (where NR indicates that samples were non-randomized), and presents three points of measurement ($O_1$, $O_2$, $O_3$) for both groups. The intervention, denoted by X applies only to the treatment condition.

| | | | | | |
|---|---|---|---|---|---|
| $\mathbf{T}_{NR}$: | $O_1$ | X | $O_2$ | X | $O_3$ |
| $\mathbf{C}_{NR}$: | $O_1$ | | $O_2$ | | $O_3$ |

*Figure 5.* Non-equivalent control group pretest-posttest design for secondary data.

To investigate the effect of the intervention on students' servant leadership skills, primary data were collected by the evaluator using a quasi-experimental non-equivalent control group design, illustrated in figure 6. Although this design is vulnerable to bias, such as selection differences, it was considered a suitable design as no baseline data to assess leadership skills had been conducted prior to programme implementation

(Cozby, 2007). Furthermore, despite groups being non-equivalent, treatment and control group participants were assumed to be similar on important demographic variables due to the fact that they were selected from the same pool of schools, grades and age groups.

In addition, primary data were collected to compare treatment and control participants on successful enrolment in tertiary education, on securing employment, and on becoming involved in positions of leadership once the intervention had been completed. This was also accomplished using a quasi-experimental non-equivalent control group design, as illustrated in figure 6.

| | | |
|---|---|---|
| $\mathbf{T}_{NR}$: | X | $O_1$ |
| $\mathbf{C}_{NR}$: | | $O_1$ |

*Figure 6.* Non-equivalent post-test only control group design for primary data.

**Participants**

A non-random sampling technique was used to recruit participants for treatment and control conditions. Participants were recruited to the treatment group based on inclusion criteria determined by the organization. These required applicants to:

- be scholars at one of 32 participating schools from the Cape Flats;
- be enrolled in Grade 11 at the start of the intervention programme;
- have obtained a minimum average grade of 45% for Grade 10; and
- show an interest in and commitment to the programme and a desire to step into a leadership position at some point in their future.

Convenience sampling and snowball sampling techniques were used to recruit control group participants from 5 of the 32 schools from which programme participants were selected. Students recruited for the control condition were required to be enrolled in the same grade level as programme participants and were also assessed on academic averages. However, these students were assigned to the control group due to exclusion criteria determined by the programme. Recruitment into the control group condition was based on students who:

- could not commit to the full duration of the programme; and/ or
- were not interested in enrolling in the Leaders' Quest programme.

Control group participants were compensated with a small amount of mobile phone credit in return for participating in the various measures.

Complete secondary data for 35 treatment group participants and 35 control group participants on measures of the EQ-i:YV were obtained from Life Choices. The treatment group consisted of 24 females and 11 males, while 25 females and 10 males made up the control group. 49% of treatment and control group participants described themselves as black, and 51% described themselves as coloured. Ages at baseline ranged from 15 to 19 for treatment group participants ($M = 16.34$, $SD = 0.91$), and from 14 to 18 for control group participants ($M = 16.49$, $SD = 0.82$). Participants for both conditions were recruited from schools in the Cape Flats area of the Western Cape.

Secondary data obtained from the organization included only data for treatment and control group participants who had completed all three waves of EQ-i:YV measures (at baseline, one year follow-up, and two-year follow-up). However, subsequent information received from the organization indicated that 160 learners were enrolled in the Leaders' Quest programme in 2013. Due to various reasons, not all participants took part in all three EQ-i:YV measures. A flowchart depicted in figure 7 provides an overview of the total number of participants who were enrolled in 2013, and the total number of participants who completed the programme by the end of 2014. In addition, the flowchart indicates how many learners dropped out during the course of the intervention and how many participants were assessed at each point of EQ-i:YV measure. This shows how the sample size ($n = 70$), investigated in this evaluation, was obtained.

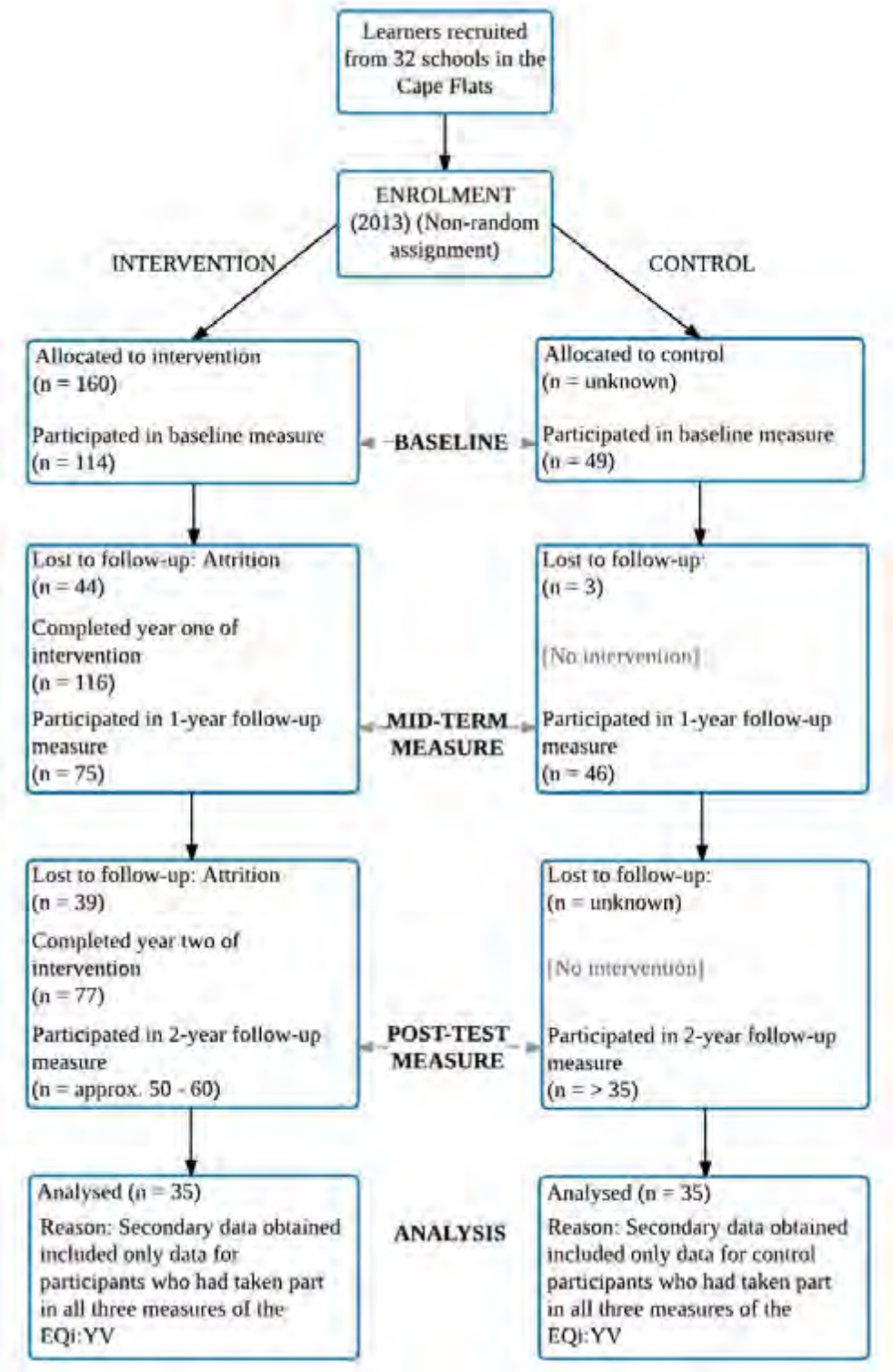


*Figure 7.* Flowchart of learners at each EQ-i:YV assessment .

The same sample of participants ($n$ = 70) was approached in June 2015 to participate in additional data collection in order to assess the programme's medium and longer-term

outcomes. 30 treatment group participants and 10 control group participants consented to taking part in this primary data collection. Descriptive analyses of key demographic variables for these samples are included in Appendix A and B.

**Procedure**

Once ethical clearance was obtained from the University of Cape Town's Commerce Faculty Ethics in Research Committee, data collection for this evaluation could begin. Secondary data including repeated measures on the EQ-i:YV for treatment and control groups was obtained from the programme staff. The evaluator also received a list of contact numbers for participants who had been part of treatment and control conditions and who had finished high school at the end of 2014. These numbers were used to re-establish contact with participants in order to obtain additional primary data. Primary data included responses on a servant leadership survey and a short structured questionnaire and was collected electronically via online questionnaires (attached as Appendix C) or telephonically where participants did not have computer or internet access. Verbal or electronic consent was obtained from each participant. Responses obtained telephonically were recorded in an excel spreadsheet and password protected. Responses obtained electronically were downloaded from Google Drive and also stored securely.

The following evaluation questions were assessed by analysing secondary and primary data:

**1. Has the Leaders' Quest programme increased EI?**

Pre-test, as well as mid-term measurement and post-test data collected using the EQ-i:YV throughout the course of the Leaders' Quest intervention were used to analyse changes in EI.

**2. Do learners demonstrate an increased capacity for servant leadership in comparison to the control group?**

Primary data on servant leadership were collected in June and July of 2015 using the Self-Assessment Servant Leadership survey (SASL) (Taylor et al., 2007). Intervention group and control group participants received the same 24 statements, and were asked

to rate these to determine how applicable statements of leadership practice and attitude were to them. The survey was slightly adapted by simplifying the language content of items. This was done to promote understanding amongst participants who speak English only as a second language.

**3. Can an association be drawn between EI and capacity for leadership skills?**

To assess whether a relationship existed between servant leadership and EI, secondary data obtained from the EQ-i:YV measures and primary data collected through SASL surveys, were assessed.

**4. Relative to students who did not receive the programme, were programme participants who matriculated at the end of 2014 more likely to enrol in tertiary education/ more likely to secure employment/ more likely to assume positions of leadership?**

Primary data, obtained from structured questionnaires completed telephonically or online, were analysed to investigate this final evaluation question.

## Measures

Table 2 provides a summary of participants and measurement tools used for each evaluation question.

Table 2

*Summary of Data Providers and Measures*

| Question | No. of Participants | Points of Collection | Type of Data | Measure |
|---|---|---|---|---|
| 1 | Treatment = 35<br>Control = 35<br>Treatment = 35<br>Control = 35<br>Treatment = 35<br>Control = 35 | Baseline (2013)<br>First-year (2013)<br>Second-year (2014) | Secondary | EQ-i:YV (Bar-On & Parker, 2000) |
| 2 | Treatment = 30<br>Control = 10 | Mid-2015 | Primary | Self-Assessment Servant Leadership survey (SASL) (Taylor et al., 2007) (Appendix C) |
| 3 | Treatment = 30<br>Control = 10 | Mid-2015 | Primary | EQ-i:YV and SASL (Appendix C) |
| 4 | Treatment = 30<br>Control = 10 | Mid-2015 | Primary | Structured Questionnaires (Appendix C) |

### Measurement Instrument: EQ-i: YV

A psychometric research tool, the EQ-i:YV, developed by Bar-On and Parker (2000) for individuals between the ages of seven and 18 was used to collect EI data at baseline (2013) and at first-year and second-year follow up (at the end of 2013 and 2014). According to this model, emotional intelligence is comprised of social, emotional and personal components (Bar-On, 2006). The EQ-i:YV was normed on a sample of almost 10 000 children and adolescents from English-speaking areas in Canada and the United States of America. The tool is made up of 60 self-report questions in the form of a 4-point Likert scale (very seldom true of me, seldom true of me, often true of me, very often true of me) and measures seven subscales: intra- and inter-personal functioning,

adaptability, stress management, general mood, and positive impression, as well as total EQ (Pfeiffer, 2001). A brief description of these subscales and the characteristics they measure according to Bar-On and Parker (2000) are presented in table 3.

Table 3

*EQ-i:YV Subscale Description*

| **Subscale** | **Characteristics Being Measured** |
|---|---|
| Intrapersonal Scale | • How well an individual understands his/her emotions<br>• How well an individual expresses and communicates these emotions |
| Interpersonal Scale | • How well an individual is able to understand the feelings of those around them |
| Adaptability Scale | • How well an individual is able to cope with change |
| Stress Management Scale | • How well an individual can cope under pressure |
| Total EQ | • How effective an individual is on daily tasks whilst remaining content |
| General Mood | • How positive and optimistic an individual is |
| Positive Impression Scale | • This scale assesses whether individuals are simply trying to create a positive impression of themselves |

Bar-On and Parker (2000) offer proof of reliability (internal consistency reliability, reliability, test-retest reliability and standard error of measurement) in their technical manual. The authors report Cronbach's alpha values of .65 to .90 for measures of internal consistency as well as Cronbach's alpha values of .77 to .89 for measures of test-retest reliability, indicating that the instrument is a reliable measure.

Evidence of validity, that is, the extent to which the EQ-i:YV measures what it was developed to measure, is also provided in the manual. Moderate to very high correlations are reported for comparisons of the EQ-i:YV and the test's adult version (the Bar-On EQ-i). Furthermore, correlations between the EQ-i:YV and the NEO-Five Factor Model of Personality (NEO-FFI) as well as correlations between the EQ-i:YV

and the Children's Depression Inventory (CDI) and Conners-Wells Adolsecent Self-Report Scale (CASS) are reported and demonstrate construct validity.

### Measurement Instrument: Self-Assessment Servant Leadership Survey (SASL)

The SASL, developed by Taylor et al., (2007) is a reduced version of the 99-item Self-Assessment for Servant Leadership Profile (SASLP) developed by Page and Wong (2000). The SASL is made up of 24 items scored on a 7-point Likert scale (strongly disagree, disagree, slightly disagree, undecided, slightly agree, agree, strongly agree). Items are based on 12 categories of servant leadership linked to 10 characteristics inherent to servant leaders (listening, empathy, healing, awareness, persuasion, conceptualization, foresight, stewardship, commitment to growth of others, and building community) (Spears & Lawrence, 2004). The 12 categories include integrity, humility, servanthood, caring for others, empowering others, developing others, visioning, goal setting, leading, modelling, team-building and shared decision-making. A diagram is included as figure 8, below, to illustrate which items relate to the four orientations (character, people, task and process) and the 12 categories of servant leadership.

Authors analysed the SASLP and the SASL and observed a Cronbach's alpha of .92 for the 24-item measure, implying test reliability. Further analyses using these two instruments provided a positive correlation of .95, indicating the tool's validity (Taylor et al., 2007).

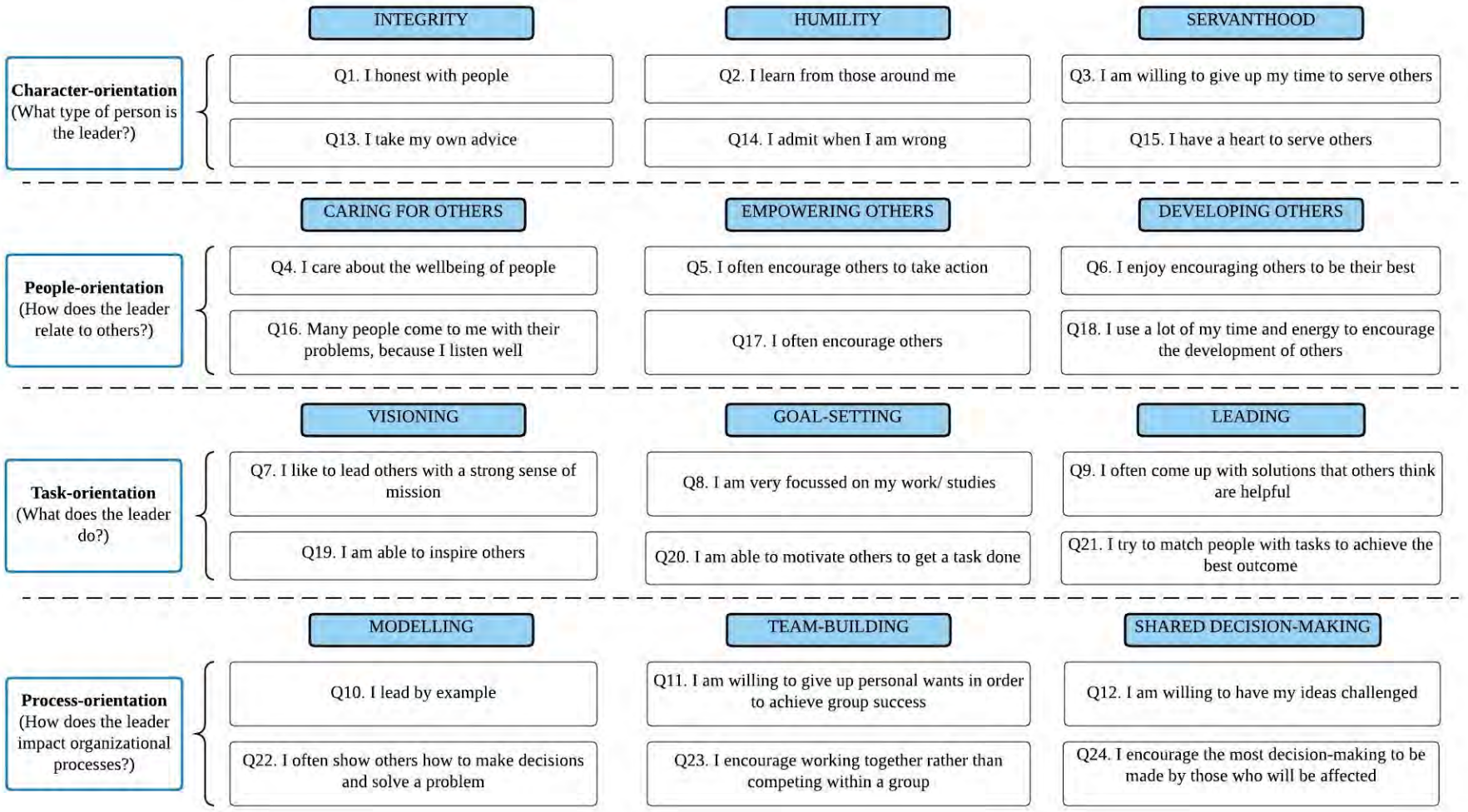


*Figure 8.* Diagram depicting four orientations and 12 categories of servant leadership.

### Measurement Instrument: Structured Questionnaire

In combination with the SASL survey, intervention and control group participants completed a short structured questionnaire either online or telephonically. A schedule of the structured questionnaire is displayed in figure 9.

**STRUCTURED QUESTIONNAIRE**

**June/ July 2015**

Paticipant Name/ Code:

1) Do you consent to participating in this research?

2) Are you currently enrolled at college/ university etc.?

3) What are you studying?

4) Are you currently employed?

5) If yes, what work do you do? (Part-time, full-time, paid, unpaid, self-employed)

6) Do you hold any leadership positions at home/ school/ church etc.?

*Figure 9*. Structured questionnaire schedule.

### Data Analysis

Descriptive statistics such as chi square tests, independent t-tests and Fisher's exact tests were used to analyse samples on key demographic variables like gender, age and race. These results are included in Appendix A and B.

One-way repeated measure ANOVA calculations were employed to analyse secondary data collected on subscales of the EQ-i:YV to assess whether any significant change in EI occurred for the treatment group over time. Mixed-design ANOVA calculations were then used to determine whether improvements in subscale measures over time remained significant when compared to the control group. The one-way repeated measure ANOVA and the mixed-design ANOVA are parametric statistical methods. Parametric tests generally have more statistical power than non-parametric tests and are, therefore, more likely to detect a significant effect when one truly exists (Field,

2013). Assumptions of normality and homogeneity of variance were checked prior to conducting these analyses. Boxplots, to check assumptions of normality, Levene's tests to check homogeneity of variance, Box's tests to check equality of covariance matrices and Mauchly's tests to check assumptions of sphericity were conducted for each subtest of the EQ-i:YV. Results and graphical output for these have been included as Appendix D.

Non-parametric Mann-Whitney tests were computed to compare programme and control groups on their capacity for servant leadership based on the four orientations of servant leadership (character, people, task, process) as well as on the 12 categories of servant leadership (integrity, humility, servanthood, caring for others, empowering others, developing others, visioning, goal-setting, leading, modelling, team-building and shared decision-making). In addition, the G*Power software package was used to conduct a post-hoc power analysis (Faul et al., 2009).

A Pearson product-moment correlation coefficient was used to investigate the association between propensity for servant leadership and EI in primary data collected for Leaders' Quest participants ($n$ = 30). As a comparison, a Spearman's rho was performed for primary control group data ($n$ = 10) to investigate the same relationship. Assumptions underlying these analyses were checked prior to conducting these tests and are attached as Appendix E.

A simple linear regression was also conducted using the programme group's primary and secondary data from the SASL measure and the EQ-i:YV measures at year two, to further investigate whether servant leadership could be predicted by EI. Assumptions required to perform regression analyses were met prior to conducting the test and are included in Appendix E.

Descriptive statistics in the form of Fisher's exact test were performed to investigate whether significant differences existed between treatment and control groups on tertiary enrolment, employment and leadership roles.

All results were assessed against an alpha level of $p < .05$.

# CHAPTER 3: RESULTS

Results are reported in the same sequence that evaluation questions were presented at the end of the introduction chapter.

Demographic information (gender, race and age) was analysed prior to assessing evaluation questions. The secondary sample ($n$ = 70) was found to be balanced on these key variables. Analyses were also performed on primary data samples. Although a difference existed in race between participants within the control group ($n$ = 10) with 80% coloured participants and 20% black participants, variables were not significantly different when primary data for treatment ($n$ = 30) and control groups ($n$ = 10) were compared ($p$ = .145). These analyses are included in Appendix A and B.

## Evaluation Question 1

### Have Learners' EI scores improved?

One-way repeated measure ANOVA calculations were conducted on data collected for subscales on intrapersonal functioning, interpersonal functioning, stress management, adaptability, general mood, and total EQ. The sample was made up of 35 treatment group participants ($n$ = 35). Analyses were used to investigate whether significant changes in EI could be detected over time for the treatment group. Results indicated that significant change occurred for stress management and total EQ subscales. However, no significant differences were produced for measures on intra- and interpersonal functioning, adaptability, or general mood. Table 4 gives a summary of significant and non-significant results for each subscale.

Table 4

*Significant and Non-Significant Treatment Group Results of EI Subscales Over Time*

| Subscale | Results |
|---|---|
| **Significant** | |
| Subscale C: Stress Management | $F(2, 33) = 37.33$, $p < .001$ |
| Subscale F: Total EQ | $F(2, 33) = 9.19$, $p = .001$ |
| **Non-Significant** | |
| Subscale A: Intrapersonal Functioning | $F(2, 33) = 2.52$, $p = .096$ |
| Subscale B: Interpersonal Functioning | $F(2, 33) = 1.47$, $p = .244$ |
| Subscale D: Adaptability | $F(2, 33) = 1.23$, $p = .305$ |
| Subscale E: General Mood | $F(2, 33) = 1.98$, $p = .153$ |

Mixed-design ANOVA calculations were then employed to investigate whether results for stress management and total EQ measures remained significant when compared to the control condition measured over the same time period. 35 treatment group participants were compared with 35 control group participants ($n = 70$). Results showed that no significant interaction could be detected for either subscale when measures were compared between groups over time.

### Subscale C: Stress Management

A significant difference in stress management was detected over time for the treatment group, $F(2, 33) = 37.33$, $p < .001$, $\eta_p^2 = .69$. A post-hoc test was conducted to investigate this further. A pairwise comparison indicated a significant $p$-value ($p < .001$) between first measure, at baseline ($M = 77.97$, $SD = 9.15$, 95% CI [74.83, 81.12]) and third measure, at the end of year two ($M = 106.08$, $SD = 12.46$, 95% CI [101.80, 110.37]) as well as between mid-term measure, at the end of year one ($M = 81.25$, $SD = 10.20$, 95% CI [77.75, 84.76]) and third measure, at the end of year two ($M = 106.08$, $SD = 12.46$, 95% CI [101.80, 110.37]).

Further investigations using a mixed-design ANOVA, resulted in non-significant findings $F(1.25, 84.81) = 3.18$, $p = .069$, suggesting that no interaction between groups on stress management measures, over time, occurred.

This means that data collected on stress management for programme participants show substantial increases over time. However, when data collected for control participants are taken into consideration, a similar pattern of improvement is observed for both groups over time. Thus, there is not enough of a change between groups to observe a significant difference. Figure 10 illustrates mean changes over time for treatment and control conditions.

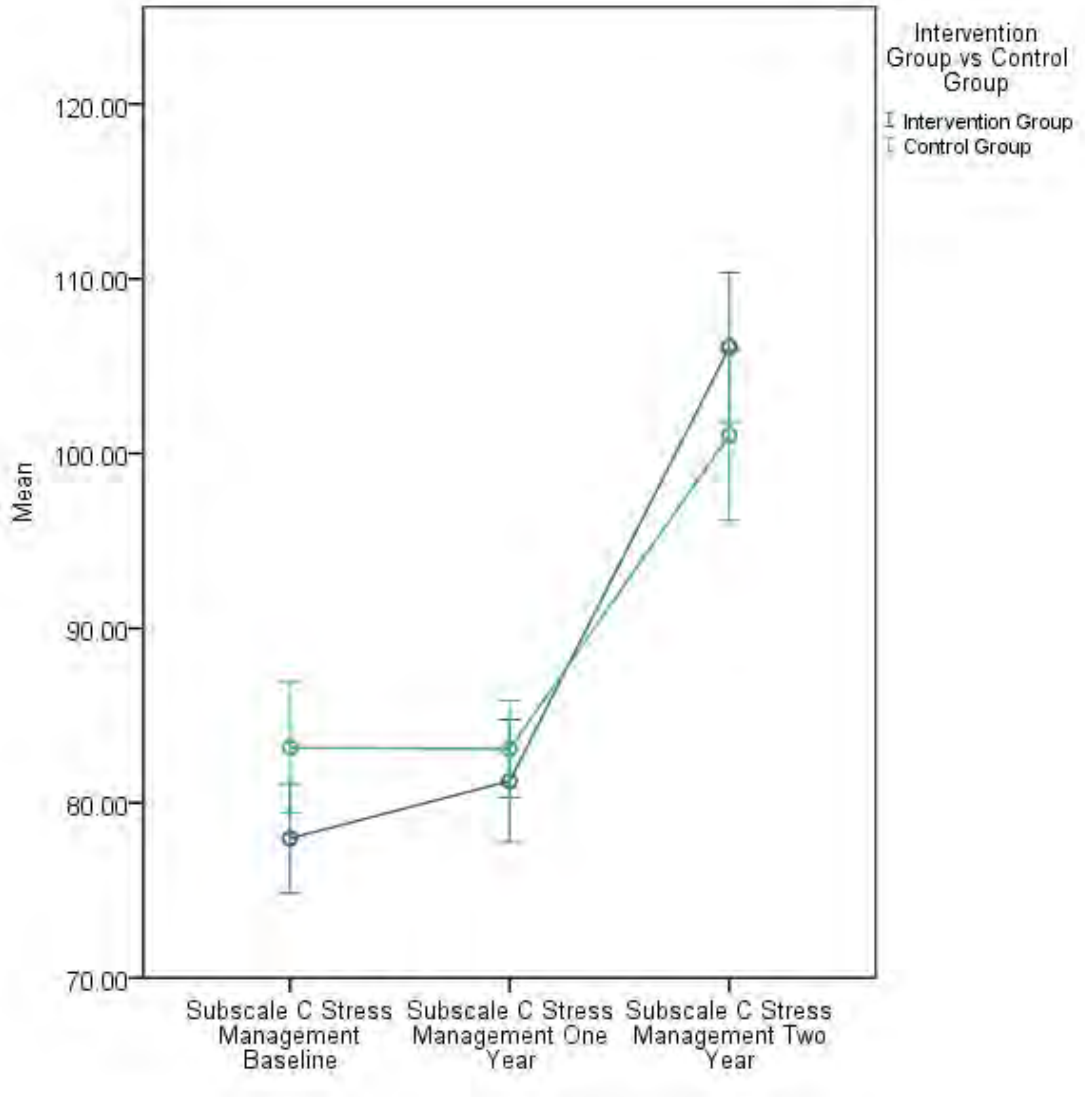


*Figure 10.* Group mean changes over time for stress management.

### Subscale F: Total EQ

A significant difference in total EQ was detected over time for the treatment group, $F(2, 33) = 9.19$, $p = .001$, $\eta_p^2 = .35$. A pairwise comparison indicated a significant $p$-value ($p = .001$) between first measure, at baseline ($M = 88.57$, $SD = 10.66$, 95% CI [84.91, 92.23]) and third measure, at the end of year two ($M = 100.26$, $SD = 14.46$, 95% CI [95.29, 105.23]) as well as between mid-term measure, at the end of year one ($M = 91.86$, $SD = 13.09$, 95% CI [87.36, 96.35]) and third measure, at the end of year two ($M = 100.26$, $SD =$, 95% CI [95.29, 105.23]).

However, the mixed-design ANOVA calculation resulted in non-significant findings $F(2, 136) = 0.137$, $p = .844$. This indicates that no interaction between groups on total EQ measures occurred over time.

This means that when only programme participants are assessed, scores show substantial improvements over time. However, when control group measures are included in analyses, findings indicate that control group participants follow a similar trend of improvement over time. Therefore, not enough of a change between groups occurs to observe a significant difference. Figure 11 illustrates mean changes over time for treatment and control conditions.

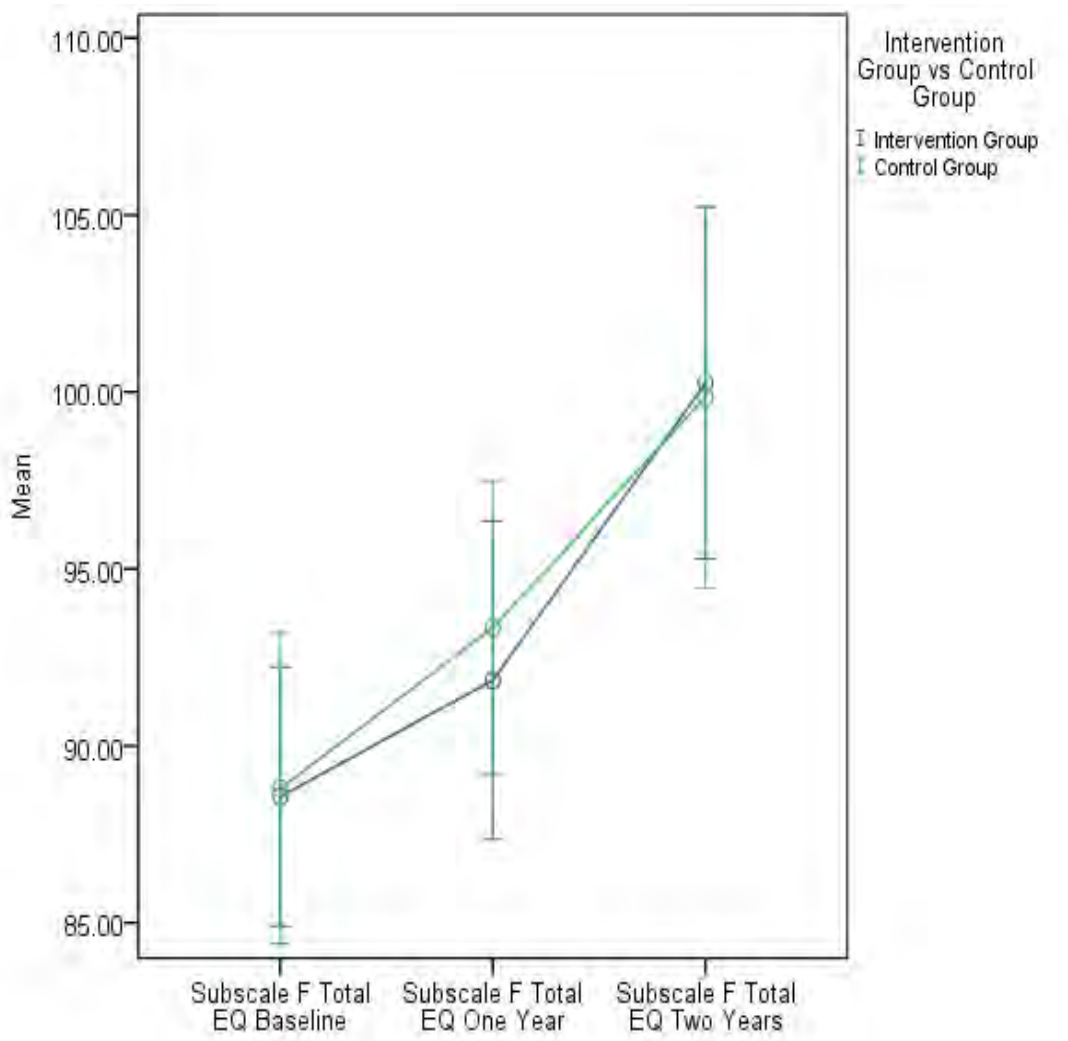


*Figure 11.* Group mean changes over time for total EQ.

**Evaluation Question 2**

**Do learners demonstrate an increased capacity/ improved attitude for servant leadership in comparison to the control group?**

The Self-Assessment Servant Leadership (SASL) survey was used to study a small sample of programme participants ($n$ = 30) and control group participants ($n$ = 10) to determine whether a difference in leadership practice and attitude could be detected between groups.

Total composite scores for programme participants ranged from a minimum of 90 to a maximum of 159. In comparison total composite scores for control group participants ranged from a minimum of 76 to a maximum of 159. Table 5, below, provides a

summary of descriptive statistics and measures of central tendency for both groups on the SASL survey.

Table 5

*Descriptive Statistics on the SASL for Intervention and Control Participants*

| | *N* | Range | Min. | Max. | *M* | *SD* |
|---|---|---|---|---|---|---|
| Intervention Group | | | | | | |
| SASL Total Composite Score | 30 | 69 | 90 | 159 | 138.50 | 13.22 |
| Control Group | | | | | | |
| SASL Total Composite Score | 10 | 83 | 76 | 159 | 125.30 | 29.99 |

### Overall Comparison

Using a non-parametric Mann-Whitney test, composite scores for both groups were analysed to assess whether a significant difference on the SASL survey could be detected between the two group conditions. Findings indicated no evidence to support a significant difference between overall scores on the SASL survey ($U = 115.00$, N1 = 30, N2 = 10, $p = .274$, two-tailed). To check whether this non-significant result was due to a lack of statistical power, a post-hoc power analysis was conducted. This revealed that the analysis was underpowered (.32), indicating a good chance of a Type II error occurring. This means that the sample was too small and that this makes it extremely difficult to detect any difference between the intervention and control group.

### Comparing Groups on Orientations of Servant Leadership

Group composite scores were then compared on the four orientations of servant leadership. Figure 12 illustrates this comparison. Mann-Whitney tests on all four orientations resulted in non-significant results, summarised in table 6.

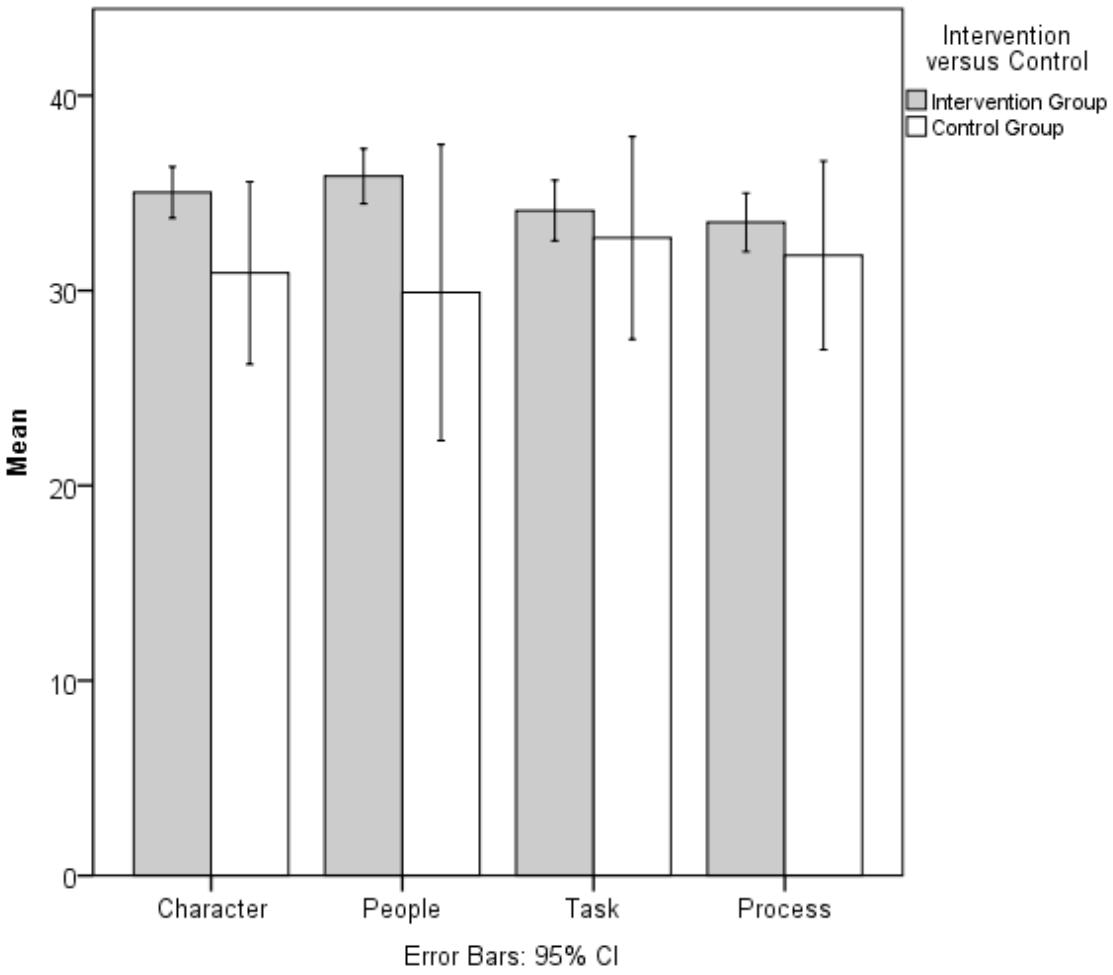


*Figure 12.* Comparisons of group composite scores for the orientations of servant leadership.

Table 6

*Non-Significant Results Between Groups on Orientations of Servant Leadership*

| Orientations of servant leadership | Results |
|---|---|
| Character-orientation | $U = 91.00$, $p = .063$, two-tailed |
| People-orientation | $U = 100.50$, $p = .121$, two-tailed |
| Task-orientation | $U = 143.50$, $p = .839$, two-tailed |
| Process-orientation | $U = 140.50$, $p = .766$, two-tailed |

### Comparing Groups on Categories of Servant Leadership

The data was also used to investigate whether a significant difference could be detected between groups on the 12 categories of servant leadership (integrity, humility, servanthood, caring for others, empowering others, developing others, visioning, goal-setting, leading, modelling, team-building and shared decision-making). *Figure 13* depicts differences between group conditions on each of the 12 categories of servant leadership graphically.

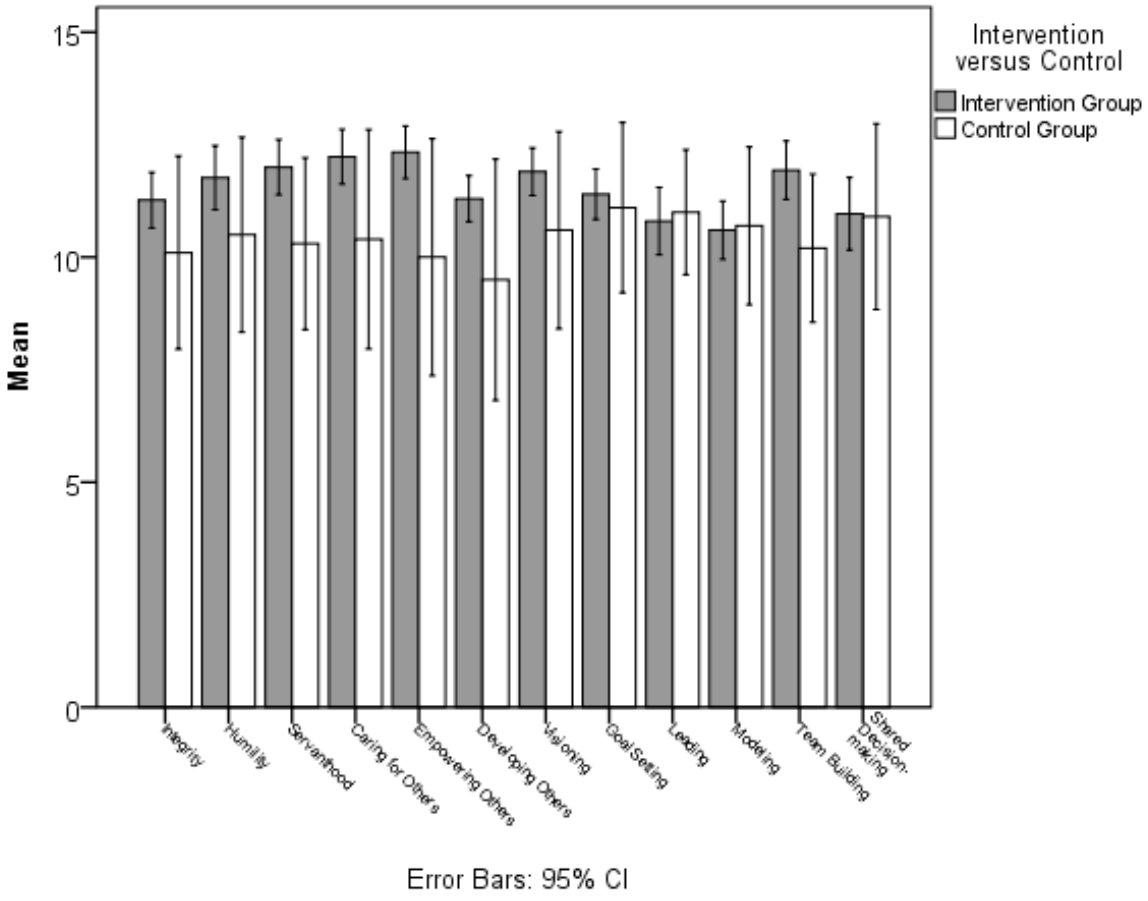


*Figure 13.* Comparisons of group composite scores for categories of servant leadership.

A Mann-Whitney test indicated that composite scores for the treatment group on the category 'Empowering Others' ($M$ = 12.33, $SD$ = 1.56) differed significantly from control group scores ($M$ = 10.00, $SD$ = 3.68), $U$ = 85.00, $p$ = .034.

A Mann-Whitney test also indicated that composite scores for the treatment group on the 'Team Building' category ($M = 11.93$, $SD = 1.74$) differed significantly from control group scores ($M = 10.20$, $SD = 2.30$), $U = 76.50$, $p = .020$.

Non-significant findings for the remaining categories are summarised in table 7 below.

Table 7

*Non-Significant Results Between Groups on Categories of Servant Leadership*

| Categories of Servant Leadership | Results |
|---|---|
| Integrity | $U = 114.00$, $p = .253$, two-tailed |
| Humility | $U = 115.00$, $p = .264$, two-tailed |
| Servanthood | $U = 92.50$, $p = .068$, two-tailed |
| Caring for Others | $U = 104.00$, $p = .142$, two-tailed |
| Developing Others | $U = 111.50$, $p = .216$, two-tailed |
| Visioning | $U = 123.00$, $p = .390$, two-tailed |
| Goal Setting | $U = 142.00$, $p = .799$, two-tailed |
| Leading | $U = 144.00$, $p = .849$, two-tailed |
| Modelling | $U = 134.50$, $p = .621$, two-tailed |
| Shared Decision-Making | $U = 144.50$, $p = .862$, two-tailed |

In addition, the average scores for each question were ranked. Question 6 ("I enjoy encouraging others to be their best") produced the highest average score in the intervention group (6.33) and question 18 ("I use a lot of my time and energy to encourage the development of other people") produced the lowest average score (4.96). After calculating average scores for each question answered on the SASL by the control group, the following results can be highlighted: Question 8 ("I am very focussed on work/studies") produced the highest average score in the control group (5.9) and question 18 ("I use a lot of my time and energy to encourage the development of other people") produced the lowest average score (4.4). A complete table of statements with the percentage and count of participants' responses are available in Appendix F.

**Evaluation Question 3**

**Can an association be drawn between EI scores and capacity for leadership skills?**

**Correlations**

A Pearson product-moment correlation coefficient was computed to investigate whether a relationship between attitude/ propensity for servant leadership and EI could be detected for participants who took part in the Leaders' Quest intervention ($n$ = 30). The result was non-significant, $r$ = .249, 95% BCa CI [-.133, .654], $p$ = .184. A scatterplot depicted in figure 14 summarizes these results.

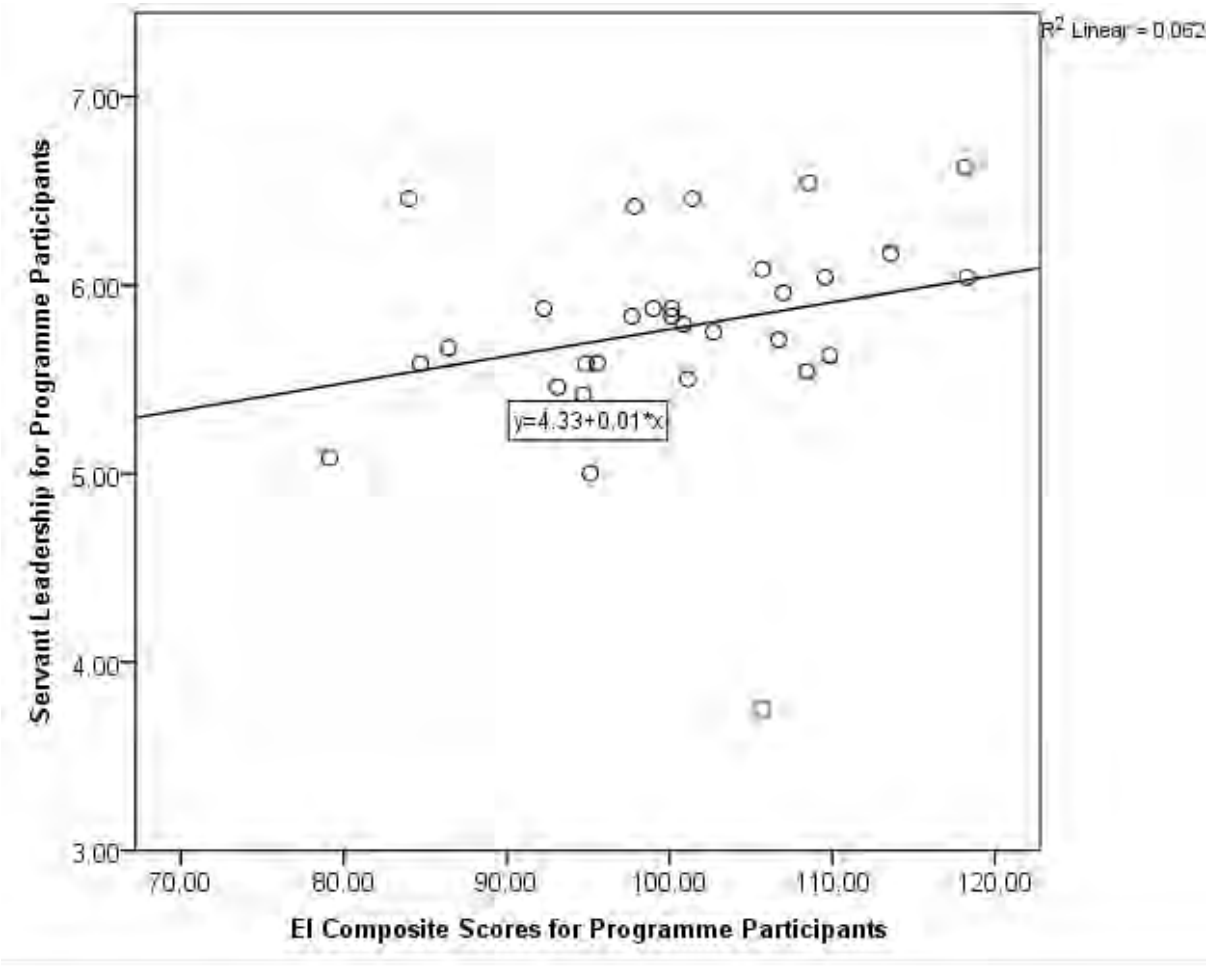


*Figure 14.* Scatterplot illustrating the relationship between servant leadership and EI

This means, that a small to moderate positive relationship could be detected between servant leadership and EI. However, a non-significant *p*-value indicated that the correlation could have occurred by chance. In other words, not enough evidence existed to generalize the existence of a relationship to the greater population. Closer investigation of the confidence intervals also showed that these extended beyond zero. This confirmed that no relationship could be deduced for the sample.

As a comparison, a Spearman's rho was performed on control group data ($n$ = 10) to investigate the relationship between servant leadership and EI. The result was also non-significant, $r_s$ = -.371 95% BCa CI [-.847, .295], $p$ = .291.

**Simple Regression**

In addition, a simple linear regression was performed with intervention group data ($n$ = 30) to investigate whether attitude to servant leadership ($M$ = 5.77, $SD$ = 0.55) could be predicted based on EI ($M$ = 100.42, $SD$ = 9.59). A non-significant result was found, $F$ (1, 28) = 1.85, $p$ = .184, with an $R^2$ = .062. Table 8 summarises test statistics for this finding.

Table 8

*Linear Model of EI as a Predictor to Servant Leadership*

| Predictor | *b* | *SE B* | *ß* | *t* | *p* |
|---|---|---|---|---|---|
| (Constant) | 4.33 (2.16, 6.51) | 1.06 | | 4.09 | $p < .001$ |
| Programme Group EI Scores | .014 (-.007, .036) | .011 | .25 | 1.36 | $p = .184$ |

Note. 95% bias corrected and accelerated confidence intervals are reported in parentheses

**Evaluation Question 4**

**Relative to students who did not receive the programme, were programme participants who matriculated at the end of 2014 more likely to enrol in tertiary education?**

A Fisher's exact test was performed to investigate differences between conditions on enrolment in tertiary education. Results indicated that programme participants ($M$ = 0.93, $SE$ = 0.05) were more likely than control participants ($M$ = 0.10, $SE$ = 0.10) to enrol in tertiary education. The difference in enrolment was statistically significant, $p$ = .000 (based on $\alpha$ = .05), with a large effect size, $\Phi$ = 0.81. This means that there is a very low probability of obtaining a difference in enrolment rates that is this large if there was no difference between people who participated in the Leaders' Quest intervention and those who did not. It is unlikely that the difference is due to chance. In addition, the large effect size indicates that there is a large difference in enrolment rates between people who participated in the programme (93% enrolled in tertiary education) and those who did not (10% enrolled in tertiary education). An odds ratio calculation indicated that the odds of enrolling in tertiary education were 0.35 times greater for individuals who participated in Leaders' Quest versus someone who did not participate in the intervention. Figure 15 illustrates these differences.

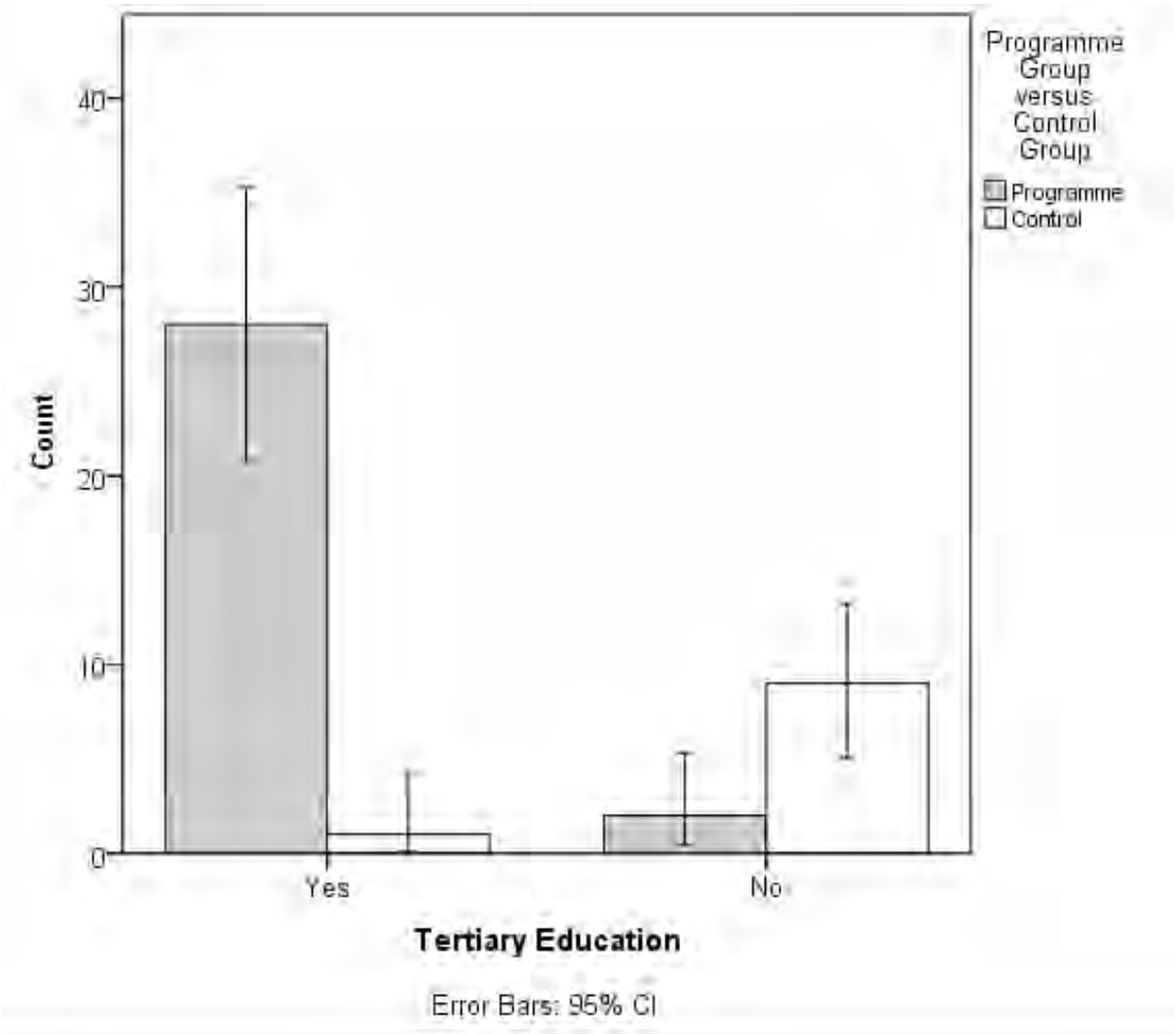


*Figure 15.* Enrolment in tertiary education between group conditions.

**4b. Relative to students who did not receive the programme, were programme participants who matriculated at the end of 2014 more likely to secure employment?**

Results from a Fisher's exact test exploring differences in employment rate between conditions indicated that programme participants ($M = 0.10$, $SE = 0.06$) were less likely than control participants ($M = 0.50$, $SE = 0.17$) to secure employment after matriculating. The difference in employment was statistically significant, $p = .015$ (based on $\alpha = .05$), with a moderate effect size, $\Phi = -0.43$. This means that the moderately sized difference is unlikely to be due to chance. However, given that the majority of programme participants enrolled in tertiary education and postponed their

pursuit of jobs, it is not surprising that these participants answered negatively on this question. Rather, it must be highlighted that improved employment opportunities are expected to be available to programme participants once they graduate, in comparison with part-time or low-wage employment obtained by students who seek work immediately after high school. It is also noteworthy that only 50% of control group participants secured employment, (while 90% of programme participants enrolled in tertiary education and 10% secured employment). An odds ratio calculation also indicates that the odds of seeking and securing employment were 0.13 times greater for students who participated in the Leaders' Quest programme versus students who did not. Figure 16 illustrate these differences.

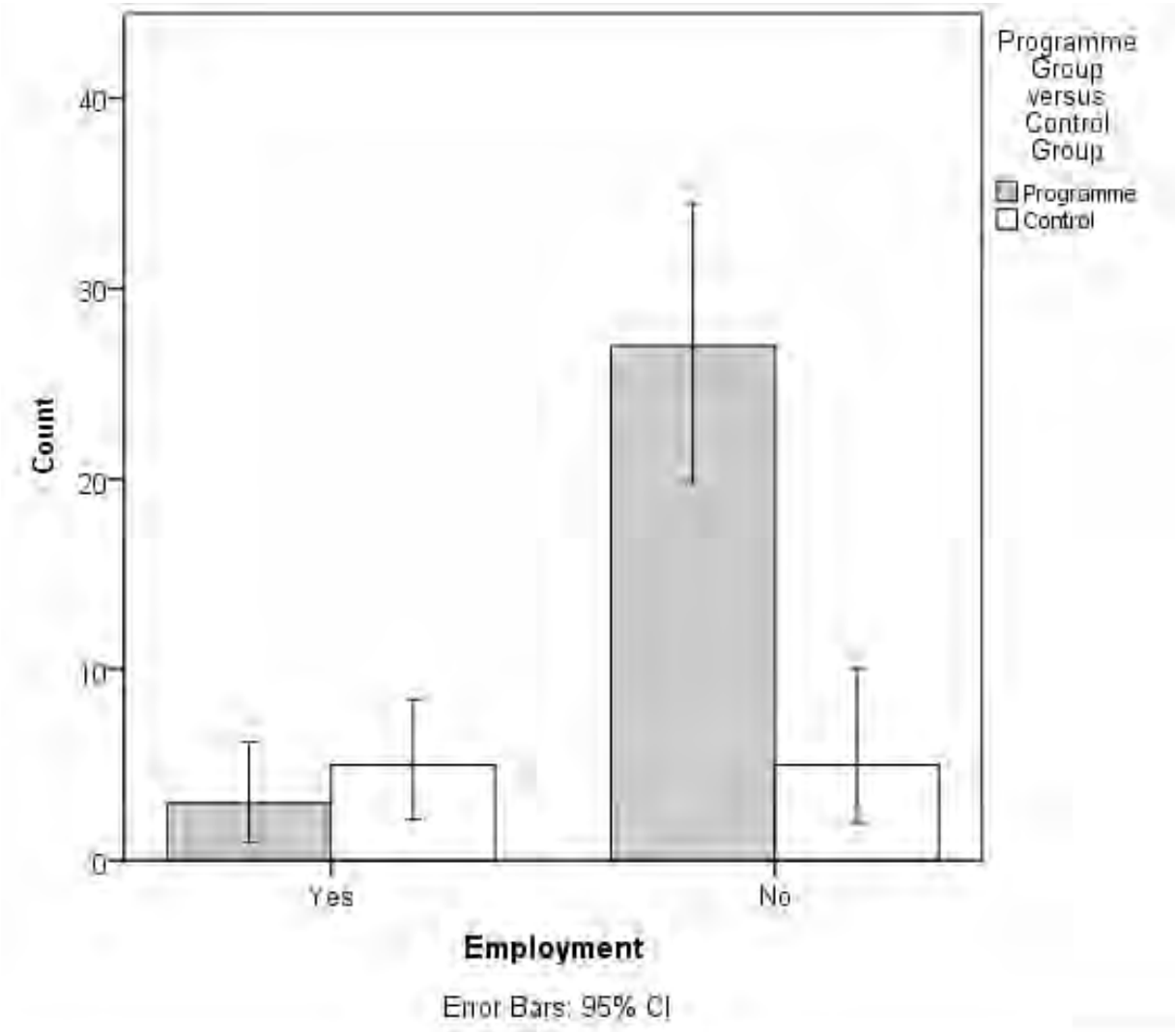


*Figure 16*. Rate of employment between group conditions.

**4c. Relative to students who did not receive the programme, were programme participants who matriculated at the end of 2014 more likely to assume servant leadership positions in tertiary education or work?**

A Fisher's exact test was employed to examine differences between programme participants ($M$ = 0.30, $SE$ = 0.08) and control participants ($M$ = 0.10, $SE$ = 0.10) on current positions of leadership. Results indicated no significant difference between groups ($p$ = .404). The effect size, $\Phi$ = 0.17, was not investigated any further due to a lack of significant difference between conditions. Figure 17 gives a visual representation of the findings.

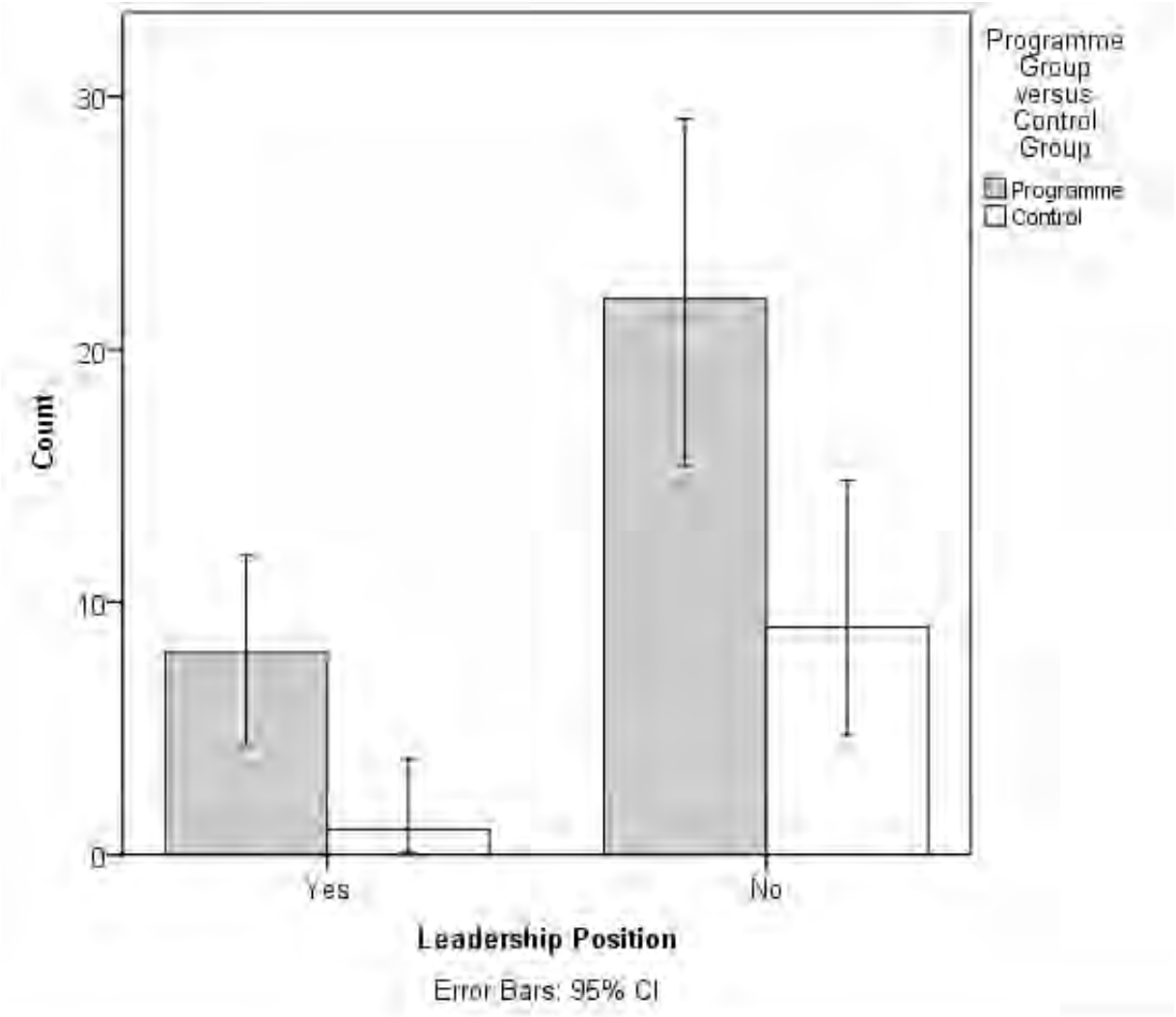


*Figure 17.* Participants between group conditions currently in positions of leadership

# CHAPTER 4: DISCUSSION

This chapter discusses the findings for evaluation questions in the same sequence as presented in the results.

## Short-term Outcome

### Evaluation Question 1

### Has the Leaders' Quest programme increased EI as measured by Bar-On's EQ-i:YV measure?

Secondary data were collected by programme staff and an external psychometrist at baseline, end of first year, and end of second year for programme participants and control group participants. These were used to assess improvements in EI over time, compared between group conditions. Improvements were assessed against subscales of intra- and interpersonal functioning, stress management, adaptability, general mood, and total EQ. Findings illustrated significant improvements for programme participants over time for stress management ($p < .001$) and total EQ ($p = .001$). However, these results were not significantly different from improvements made on the same subscales by control participants.

These findings emphasize the importance for evaluations to incorporate a control group in the research design, where possible. If Leaders' Quest had not obtained data for control group participants, improvements on stress management and total EQ measures in programme participants might have been mistakenly attributed to the intervention. Although there appears to be a dearth of literature focussing specifically on natural maturation with regards to EI, the fact that the control group showed a similar trend, indicates that improvements may simply have been as a result of maturation and practice effects. A maturation effect refers to any psychological or biological change that occurs with the passing of time. This means that programme participants are continuously growing and changing throughout the duration of the programme and that natural maturation and development also take place independently of an intervention programme (Babbie, 2015). A practice effect refers to the ongoing consolidation of learning by repetition during various question and answer processes. In a long-term

intervention, participants may also potentially be exposed to other experiences, outside of the programme, that contribute to learning and practising emotional regulation (Blanchard-Fields, 2007). These factors make it more difficult to ascertain whether a programme's outcome has been met as a result of an intervention alone. If these contributions are incorporated in an estimation of a programme's effects, they will produce a biased result (Rossi et al., 2004). Despite the fact that the inclusion of a control group indicates that no improvements in programme participants took place, Life Choices is commended for having included a control condition on measures of EQ-i:YV throughout the pilot programme.

Although it is somewhat disheartening that no significant results were obtained using the EQ-i:YV tool, this does not mean that students are not benefiting from the programme. Cognisance must be taken with regard to the role that poverty, crime, and poor schooling play in adolescents' lives. These factors may have a far greater negative impact than low levels of EI, on the way in which individuals deal with challenges. Amidst these contextual difficulties, improving EI may not have the effect that is hoped for. Secondly, it is important to consider that the EQ-i:YV may not be the most appropriate tool for a South African target population as the tool was normed on English-speaking adolescents from developed countries (Bar-On & Parker, 2000). In addition to language, the intersection of race, gender, culture, religion and the country's socio-economic conditions contribute to a multitude of identities. This diversity needs to be taken into account when assessing how young people are learning emotional intelligence.

Finally, the programme theory makes the assumption that adolescents who meet the selection criteria are ready to benefit from the programme. However, the selection criteria do not take into account to what sort of EI training or development students have been previously exposed. What is more, research on the South African context indicates that gaps in learning tend to increase over time, and that the longer these problems remain unaddressed, the worse an individual's chances are of benefiting from educational interventions (Spaull, 2013). Essentially, this raises the question whether beneficiaries on the programme are being targeted too late. In addition, serious attention to the lived realities of the poor families living in the Cape Flats presents a multitude of

compounding difficulties that include, but are not limited to, malnutrition, violence, unemployment and a high prevalence of HIV/AIDS (Engle et al., 2011). Taking this into account, it may not be surprising that certain gaps in education or slow processes of learning EI exist in the target population.

Evidence suggests that children who are exposed to multiple stressors frequently struggle to develop appropriate and effective coping mechanisms (Wachs & Rahman, 2013). Given the context in which children and youth in the Cape Flats are growing up, it is possible that the non-significant results on these subscales highlight the need for greater support in developing more appropriate coping techniques.

Rather than concluding that EI remains entirely unaddressed by the programme, these EQ-i:YV findings emphasize the need for a combination of quality interventions to address the greater issues of poverty alleviation and to contextualise programmes to address various experiences of intersecting challenges that compound to disadvantage individuals' lives.

Research published by Nelis et al. (2009) also emphasizes the theory that some elements of EI are more easily developed and improved than others. It is important to bear this in mind and to consider that longer-term interventions, coupled with parenting interventions, would possibly target components of EI measured by the EQ-i:YV tool more effectively.

It may also be worth considering the sensitivity of the EQ-i:YV, that is, the extent to which the tool appropriately measures the activities that are presented by the Leaders' Quest programme (Rossi et al., 2004). According to this evaluator's understanding of the programme activities, elements of EI are currently targeted through theoretical leadership sessions, practical exposure during experiential activities, and reflection sessions with coaches. Some of the EQ-i:YV subscales might assess certain elements of EI emerging through these processes. However, it would appear that programme activities need to be expanded and/ or intensified in other areas in order for the EQ-i:YV to produce a more accurate reflection of programme impact on EI. Alternatively, a more abilities-focussed measure that is more appropriately aligned to future activities presented by the programme may be helpful (Zeidner et al., 2001; Zeidner et al., 2002).

While the programme theory is based on evidence that suggests that emotional intelligence can be developed in individuals, it may be important for evaluators and programme staff to reconsider this assumption. More specifically, it may be necessary to reconsider what exactly is needed to develop emotional intelligence in individuals from diverse backgrounds, who range in their understanding and knowledge of emotional intelligence as well as the ways in which this understanding is exhibited. In addition, difficulties with regard to the conceptualisation and measurement of EI, as highlighted in the literature (Zeidner et al., 2002), combined with the lack of improvement found for EI in this evaluation, may indicate that a different focus could be a better solution.

A revised impact theory was produced as a part of this dissertation as an alternative option for Leaders' Quest. This framework could potentially be used as an improved framework to illustrate how the programme envisions impacting its target audience. It maintains focus on servant leadership and incorporates core activities as presented by the programme in its current form. However, the primary objective of improving EI is shifted and illustrated as a medium- to longer-term outcome. In addition, the tenets of servant leadership and practical application of the 10 servant leadership characteristics (listening, empathy, healing, awareness, persuasion, conceptualisation, foresight, stewardship, commitment to growth of others, and building community) could be incorporated into activities focussed on improving knowledge and attitude towards servant leadership. As was evident from research on EI reviewed in chapter 1, studies frequently employed measurement instruments embracing the ability model of EI. It is argued that these measures have been able to produce positive results for predictive relationships between EI and desired outcomes like effective leadership (Brown, Bryant & Reilly, 2006). Therefore, it may be helpful to conceptualise EI more clearly according to Mayer and Salovey's sequential model, depicted in figure 18. It should also be highlighted that enhancing EI is arguably a long-term process. Although it may seem like Leaders' Quest is a long-term intervention, achieving the goal of developing EI may, in fact, take much longer.

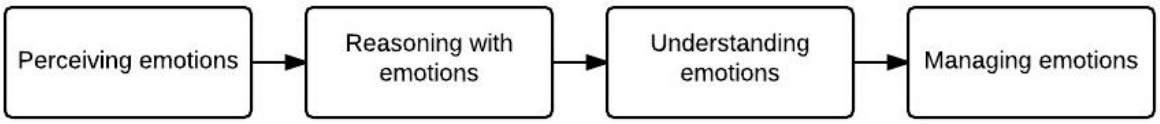


*Figure 18.* Mayer and Salovey's model of EI (Naidu, 2014, p.728).

Possible improvements in EI would also be addressed via servant leadership activities, given the parallels that have been indicated between servant leadership and Mayer and Salovey's model of EI (Winston & Hartsfield, 2004). This revised impact theory is presented as figure 19, below.

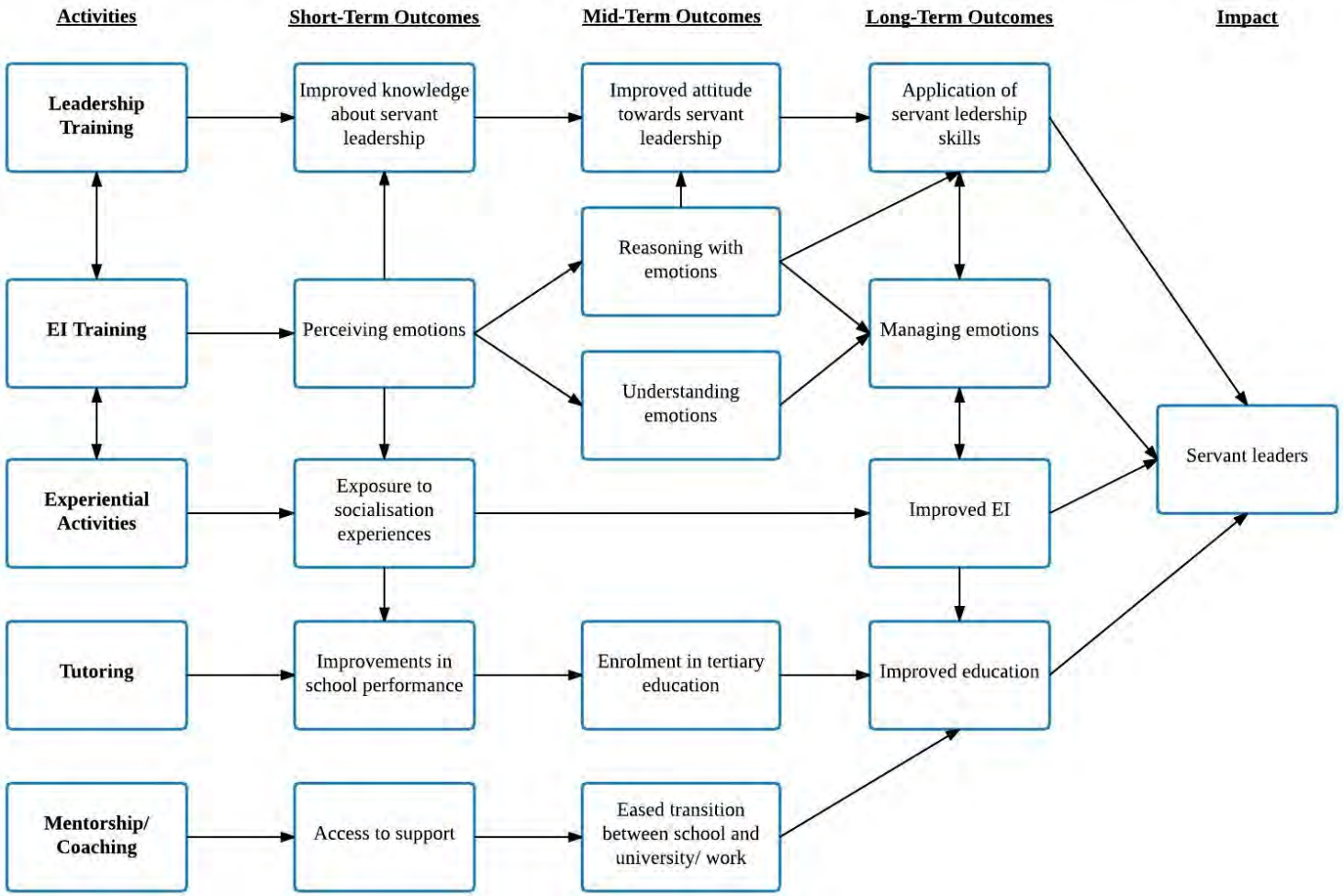


*Figure 19.* Revised impact theory for Leaders' Quest.

## Medium-term Outcome

### Evaluation Question 2

### Do learners demonstrate an increased capacity for servant leadership in comparison to control group participants?

Primary data, collected using the SASL survey, was used to assess programme and control group participants on capacity for servant leadership. No evidence for any significant difference between the groups could be found when these were compared on the four orientations of servant leadership (character, people, task, process). However, scores obtained on the SASL survey were also broken down into the 12 categories of servant leadership. Comparisons on these indicated significant differences in two categories, namely empowering others ($p$ = .034) and team building ($p$ = .020). It is clear from these findings that the programme has succeeded, at least on a small scale, to instil values required of servant leaders and that the programme has been partially successful in creating unity amongst participants.

In addition, investigation of ranked averages indicated that programme participants rated themselves highest on question 6 (“I enjoy encouraging others to be their best”), producing an average score of 6.33 and rated themselves lowest on question 18 (“I use a lot of my time and energy to encourage the development of other people”) producing an average score of 4.96. These are interesting responses and may point towards initial understanding of servant leadership (encouraging others), yet suggesting that perhaps there is a greater need to better or continuously instil the tenets of servant leadership (leading those around us by serving and collaborating with those around us). In comparison, control participants rated themselves highest on question 8 (“I am very focussed on work/studies”) with an average group score of 5.9 and lowest on question 18 (“I use a lot of my time and energy to encourage the development of other people”) with an average score of 4.4. These responses appear to indicate a much greater focus on the self and on individual development, and a distancing of the self from the development of other individuals. Although a more in-depth exploration is necessary, these findings point towards preliminary evidence that subtle differences in the intervention group might be due to exposure to the programme’s focus on developing servant leadership skills.

This evaluator would attribute the achievements mentioned above to the theoretical modules and training activities of the programme, and the socialisation processes that are practised during experiential activities. These findings seem to support studies highlighted in the literature, which maintain that experiential learning is a key factor to the development of emotional processing (Zeidner, 2001). These appropriate emotional responses are claimed to be linked to effective leadership (Latif, 2004). Findings also support the shifts found in the literature around leadership, which emphasize the move away from a top-down approach, to a more teamwork based method of leading.

Findings for comparisons on the orientations and remaining categories of servant leadership indicated no significant differences. These findings should not be considered as final, however, due to various limitations. Of greatest consequence was the fact that the samples for these analyses were extremely small ($n = 30$ and $n = 10$, for programme and control group participants, respectively). Limited statistical power due to the very modest sample size possibly played a role in limiting the significance of the statistical comparisons on this evaluation question. A post-hoc power analysis revealed that a sample size of approximately $n = 104$ for programme and $n = 34$ for control group participants would be needed to obtain statistical power at the recommended .80 level (Cohen, 1988). Furthermore, no baseline data was available, which means that it was not possible to measure whether programme participants exhibited improvements in servant leadership skills relative to the control group. It is suggested that data be obtained at various points in time for future cohorts entering the programme, so that these changes can be monitored and so that a more reliable analysis can be conducted.

It is also vital to acknowledge the role that poverty, crime, and poor schooling play in underprivileged adolescents' lives, and to consider that these factors may have a far greater negative impact on the way in which individuals develop than one might assume (Wachs & Rahman, 2013). It is possible that a longer-term intervention is necessary to adequately establish servant leadership skills, as is highlighted in the revised impact theory presented in figure 19 above. Nonetheless, the fact that small successes are observable in this evaluation suggests that the intervention is on the right path.

Additional considerations are the reliability (the extent to which an instrument obtains consistent results for repeated measures), and validity (the extent to which an

instrument is able to measure what it has been designed to measure) of the SASL tool. Although Taylor (2002 as cited in Taylor et al., 2007) provides some evidence for the instrument's reliability and validity, it seems that this is based exclusively on analyses against the longer, 99-item SASLP instrument. Further research possibly needs to be conducted on the reliability and validity of the SASL to confirm its use as an appropriate measure of servant leadership.

**Evaluation Question 3**

**Can an association be drawn between EI and capacity for servant leadership skills?**

Findings for this evaluation question produced a very small positive relationship, however this was found to be non-significant. Therefore, regarding this sample, not enough evidence exists to report that an association can be drawn between EI and capacity for servant leadership. Despite this finding, the literature indicates that considerable attention is paid to EI as a significant component to developing and enhancing efficient leadership qualities (George, 2000). Furthermore, research shows that individuals who are able to regulate their emotions and appropriately respond to the emotions of others, are more likely to be perceived as effective leaders (Goleman, 2004). While a relationship between the variables of EI and servant leadership cannot be reported for programme participants in this sample, the theory suggests that such an association is very probable. Although this evaluator acknowledges the difficulties in obtaining and maintaining a large sample of programme and control group participants, being able to assess a greater pool of learners would give more accurate results with regards to the programme's effect towards establishing this link.

## Long-term Outcome

### Evaluation Question 4

**Relative to students who did not receive the programme, were programme participants who matriculated at the end of 2014:**

**a) more likely to enrol in tertiary education?**

Primary data collected for a small sample of programme participants ($n$ = 30) and control participants ($n$ = 10) were used to compare enrolment rates in tertiary education. Findings illustrated a significant difference between groups (p = .000) and indicated that learners who are exposed to the Leaders' Quest programme are more likely to enrol in tertiary education after matriculating.

The connection between improved EI and academic performance has been published in research conducted by Petrides et al. (2004) who illustrate that youths scoring well on EI measures are less likely to drop out of school, or participate in deviant behaviour. Parker et al. (2004) also demonstrate that students scoring highly on EI measures experience an easier transition from high school to university or college. Due to the fact that this evaluation did not detect any improvements on EI for students in this sample, improved academic performance and high rates of tertiary employment cannot be attributed to the programmes efforts of improving EI. This evaluator attributes outstanding results in tertiary enrolment to the support and guidance offered by leaders and coaches on the Leaders' Quest programme as well as the tutoring component of the intervention.

Nevertheless, the finding for this evaluation question is especially reassuring in light of the data on poverty in South Africa, indicating that approximately 11.9 million children in South Africa (64% of all children) were living in poverty in 2010. Furthermore, the outcome of this analysis is encouraging considering the evidence that effective schooling improves life opportunities and that only 29.8% of individuals in Cape Town obtained their matric according to the census in 2011, and only 16.6% of individuals from the same area had received higher education by 2011 (Statistics South Africa, 2015).

It is alarming and very apparent that inequalities in South Africa are strongly linked to educational opportunities, and for many, grim circumstances are unlikely to change, unless disadvantaged populations are provided with appropriate interventions (Berry, Dawes & Biersteker, 2013). The Leaders' Quest programme appears to be addressing this particular need. Continuous monitoring of programme participants, post-intervention, to ascertain whether these students complete tertiary education will be an important factor in future outcome evaluations of the programme.

**Relative to students who did not receive the programme, were programme participants who matriculated at the end of 2014:**

**b) more likely to secure employment?**

Primary data were used to compare group conditions on differences in rates of employment. Results indicated a statistically significant difference for employment between the two groups ($p = .015$). Closer investigation of descriptive statistics showed that a larger proportion of control group participants had secured employment compared to programme participants. However, this is not a negative outcome with respect to the intervention due to the fact that almost all programme participants (93%) enrolled in full time tertiary education and due to the fact that research shows higher education to improve living opportunities and standards (Berry et al., 2013). The only programme participant who was not enrolled in tertiary education had secured full-time, paid employment.

In addition, closer examination of the descriptive statistics indicated that only half of control group participants (50%) had secured employment. These findings suggest that there is a definite need for programmes such as Leaders' Quest in addressing concerns around education and employment, specifically in response to evidence collected during the 2011 census research for Cape Town, which indicated an overall unemployment rate of 23.9% with a youth unemployment rate of 31.9% (Statistics South Africa, 2015).

As such, findings suggest that the Leaders' Quest intervention successfully addressed the needs of all 30 students that were included in the sample for follow-up assessment of this evaluation. However, results obtained through this evaluation cannot be

attributed to improvements in EI due to the fact that no increases in EI were observed, despite the fact that the literature indicates that improving elements of EI aids students' perception of being job-ready when they leave school (Mayer & Geher, 1996; Dacre-Pool & Qualtar, 2012). These findings may, therefore, be better attributed to experiential activities provided by Leaders' Quest and networking opportunities that are provided by mentors and coaches.

**Relative to students who did not receive the programme, were programme participants who matriculated at the end of 2014:**

**c) more likely to assume positions of leadership on campus or at work?**

Results indicate that there is no significant difference between the two groups ($p$ = .404). However, a 30 month programme may simply not be enough time to fully develop a leader. This does not mean that participants have not learnt important servant leadership skills, and these may very well get implemented at a later stage. In addition, youths must adapt to a lot of change when they transition from their high school setting to university or their first jobs. Assessing them 6 months into this major life-event to investigate whether they have joined committees or societies, may be a little unfair. The development of leadership in South Africa certainly should not be viewed as a short-term endeavour, and therefore, a better indicator might be whether learners have put themselves forward for positions on committees or of societies within the first three years out of school.

Contact information for students who participated on the programme could be saved in an alumni database, to be used to monitor their progress over the long-term and to determine whether improvements on this evaluation question have taken place.

### Implications for the Leaders' Quest Programme

Overall, there are aspects of Leaders' Quest that are very successful and are producing positive results. However, this is not occurring via the programme's assumed impact pathway of EI. Thus, arguably, the success of the programme can be attributed to its tutoring component, and efforts of supporting, coaching and mentoring youths in applying for tertiary education. There may also be a strong effect of having leaders and

coaches and an organization that believes in them – which may motivate scholars to do better. As a result, this evaluation shows that the programme has been effective, although not through their hypothesized causal mechanism of EI. In addition, the difficulties encountered by South Africa's poverty-stricken population require a multi-pronged approach to provide the necessary foundations for underprivileged South African adolescents to access, and benefit from, the available intervention (Nores & Barnett, 2010). Some recommendations follow, giving some options in terms of how the programme could be improved.

**Recommendations**

1. Due to the fact that this evaluation produced no evidence to indicate improvements in Leaders' Quest's primary objective of increasing EI, it is recommended that the organization revises the programme's impact theory. This can be achieved using a conceptual framework with more of a focus on servant leadership, and a more distal focus on EI, to guide the development and intensity of programme activities. Using Salovey and Mayer's (1990) model of EI, programme goals for improving EI could be more easily defined, targeted and measured. These changes can provide better control over effects and impacts of the programme, thereby also leading to improvements in future.

2. Although incorporating Salovey and Mayer's definition and understanding of EI may make it easier to establish outcomes and specify appropriate programme activities to better target intended goals, this will imply using an abilities-focussed measure to assess improvements in EI in the future.

3. Further recommendations include strengthening elements of the programme that have received positive results, such as the programme's success in getting the majority of students enrolled in tertiary education.

4. It is also advised that future data collection makes use of performance tests or more objective reports and feedback from teachers/ employers/ colleagues in addition to self-report measures in order to obtain a more accurate indication of improvements on outcomes.

5. Finally, it is suggested that attempts are made to stay in touch with programme participants and maintain an updated database of contact details for control participants in order to conduct ongoing monitoring, and to assess long-term impact. This is especially important as the programme's short- to long-term effect may be to instil skills, knowledge and attitudes, but the programme's intended impact of developing servant leaders for South Africa's future may only be observable in several years to come.

**Limitations of the Evaluation**

The evaluation could have provided a more comprehensive report if mixed-methods had been applied. Collecting qualitative data, in addition to the quantitative data, through interviews and focus groups would have supplemented the quantitative findings and provided more comprehensive and meaningful insight into the programme's impact on leadership identity formation. Given certain time-constraints, this was not possible and therefore one of the greatest limitations of this evaluation was its restricted timeframe.

In addition, it is possible that selection bias took place when participants were recruited for the programme. Selection bias may have occurred due to the fact that participants applied to take part in the Leaders' Quest programme, while participants who were included in the control group mostly did not put themselves forward as potential candidates. Therefore, the group of students applying to take part may already exhibit slight differences in areas such as motivation, drive and determination compared to the control group. As a result, the sample studied for this evaluation cannot be deemed representative of the greater population.

Compounding possible selection bias is the fact that participants committing to an intervention programme running for 30 months essentially also require the support and commitment of parents to drive them to programme sites or provide transport money. Individuals who do not have this support from a parent or caregiver would be unable to participate in the programme, decreasing the intervention's accessibility to a select few.

Some disadvantages regarding the use of quasi-experimental designs also exist. Specific cause for concern in terms of this evaluation include threats to internal validity

relating to compensatory rivalry on all measures. Compensatory rivalry refers to when control group participants decide to put an increased effort into reports or tests to show that they can succeed despite not taking part in the programme (Babbie, 2015).

A related concern, adding to the limitations of the evaluation are the challenges created by exclusively using self-report measures. Self-perception about one's own skills and abilities may be inaccurate and could be influenced by a variety of factors, not excluding social desirability bias, which refers to participants answering in a way they feel is expected of them (Cozby, 2007).

Finally, while the EQ-i:YV seems to be an appropriate measure for this particular group of learners based on the fact that it was designed to assess adolescents, Bar-On and Parker's (2000) technical manual emphasizes that it is applicable for students up to the age of 18. Measures taken for students at the end of year two included a large proportion of programme and control group participants who were older than 18, leading one to question the applicability of the tool at this stage.

Finally, a post-hoc power calculation for primary data samples revealed that a much larger sample would have been required in order to detect significant difference. As a result of the moderate sample available for this evaluation, calculations were underpowered and significant differences were difficult to assess.

**Implications for Future Evaluations**

This evaluator would suggest that future evaluations incorporate more data focussed on improvements as assessed by the SASL survey or a similar tool investigating improved knowledge and improved attitude towards servant leadership behaviours rather than focussing primarily on EI. It is also recommended that future evaluations consider incorporating qualitative data obtained from participants to explore the programme's perceived impact of leadership identity formation.

## Conclusion

The focus of this evaluation report has been on investigating how Leaders' Quest is progressing towards achieving three of its desired outcomes, and learning from these findings to make the relevant improvements to the intervention, in order to maximise the possible impact that this programme can have.

Main findings revealed that no significantly measurable evidence for the improvement of EI could be detected by this evaluation for this sample of participants. Consequently, improvements in medium-term and longer-term outcomes which are based on the assumption of increased EI, cannot be credited to improvements on this variable. Given this result, the programme might be more successful with a revised impact theory, and would benefit from shifting the focus and goal of improving EI to a more distal outcome.

Despite this, findings indicate that whether or not the intervention is fostering EI, a variety of important and extremely beneficial skills are being conveyed and learned through core components of the programme. The most significant finding is the programme's success in helping students enrol in tertiary education. The evaluator attributes this to programme activities focussed on regular tutoring of school subjects by programme staff and core programme components including monthly mentorship sessions between participants and outside volunteers as well as access to support and general guidance provided through coaching sessions with programme staff. Accessing these resources help high school students improve at school, develop networking skills, and build confidence. In addition, small differences between groups on elements of servant leadership, such as empowering others and team-building were noted. As such, the intervention appears to make small but very effective contributions to the lives of their programme participants.

It should also be borne in mind that Life Choices promotes development for youth in a holistic manner: the Leaders' Quest programme constitutes merely one of five areas of intervention through which the organization targets disadvantaged youths in the Western Cape.

In conclusion, Leaders' Quest attempts to address South Africa's urgent need for authentic, dedicated, responsible, and pragmatic leadership. Although improvements certainly need to be made, the programme can provide an opportunity for country-specific, servant leaders to evolve from the challenges that constitute this country's reality. There is great need for renewed belief in the well-established resilience of South African society, and the Life Choices organization can be commended for their dedication to the basic principle of providing a hand-up, not a hand-out. Life Choices deserves respect for devising various interventions in the pursuit of citizen development which can be expected to contribute to new, well-rounded citizens and leaders. As such the organization is encouraged to persevere in their efforts of evaluating and continuously improving the programme's effects and impact, and to promote and provide an ever-improving service for youths of the Western Cape towards developing future servant leaders for South Africa.

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# APPENDIX 1

## Letter of Approval from the Faculty of Commerce Ethics in Research Committee

UNIVERSITY OF CAPE TOWN

**Faculty of Commerce**
**Ethics in Research Committee**
Courier: Room 2.21 Leslie Commerce Building Upper Campus University of Cape Town
Post: University of Cape Town • Private Bag • Rondebosch 7701
Email: Irwin.brown@uct.ac.za
Telephone: +27 21 650-2311
Fax No.: +27 21 689-7570

15 June, 2015

Anja Kerstin Mulder
School of Management Studies

**Project title:**

Improving Emotional Intelligence and Developing Servant Leadership Skills: An Outcome Evaluation of Life Choices' Leaders' Quest Programme

Proposal ref: 15-06-2015 Mulder A

Dear Researcher,

This letter serves to confirm that this project as described in your submitted protocol has been approved.

Please note that if you make any substantial change in your research procedure that could affect the experiences of the participants, you must submit a revised protocol to the Committee for approval.

Regards,

Professor Michael Kyobe

Commerce Faculty Ethics in Research Committee

# APPENDIX 2

## Letter of Permission Signed by Managing Director, Sofia Neves, of Life Choices

UNIVERSITY OF CAPE TOWN

**School of Management Studies**
University of Cape Town. Private Bag.
Rondebosch 7701
Telephone: +27 21 650-5218
Fax: +27 21 689-7570
8 February 2015

**TO WHOM IT MAY CONCERN**

Thank you very much for your willingness to enable one of our Master's students to work with a programme from your organization. I appreciate your contribution to the education of our students.

The student will need programme information from you and we request that you or a designated person meet with them regularly to provide access to this information. Your cooperation in this regard will ensure that the student meets deadlines and provides you with a high quality evaluation. In order to keep track of the student's interactions with your organization, we request that you copy the supervisor on all correspondence to the student.

Please note that our students are required to work within the ethical framework of the Faculty of Commerce when collecting information from programme documents or programme recipients. This framework deals with anonymity of data sources, sensitivity when requesting information from people and responsible reporting of results.

We also undertake and ensure you that the student will display professional behaviour at all times while working in your organization or on your programme. At the end of the process, you will receive a useful report which will enable you to make informed decisions regarding your programme.

In order to comply with the rules of the Faculty of Commerce, we request you to sign below to indicate that the student will have access to programme data and records and where applicable, to programme recipients.

Thank you very much.

Yours sincerely

**PROF J LOUW-POTGIETER**
**CONVENER: MPHIL PROGRAMME EVALUATION**

**AGREEMENT TO ACCESS PROGRAMME RECORDS AND/OR RECIPIENTS:**

SOFIA NEVES — SOFIA'S LIFE CHOICES — 23rd March 2015

**AUTHORISED PERSON** **ORGANISATION** **DATE**

## APPENDIX A

Descriptive analysis of demographic variables for the secondary data samples used in EQ-i:YV measures are included below:

A chi-square test was conducted to determine equivalence of gender (female versus male) between group conditions (intervention versus control group). These initially appeared to be similarly distributed, with 24 female and 11 male participants in the intervention group versus 25 female and 10 male participants in the control group. The chi-square test confirmed original predictions that there was no significant difference in distribution of gender between the two conditions, $X^2$ (1, $N$ = 70) = .07, $p$ = .794. These distributions are illustrated graphically in figure a and figure b.

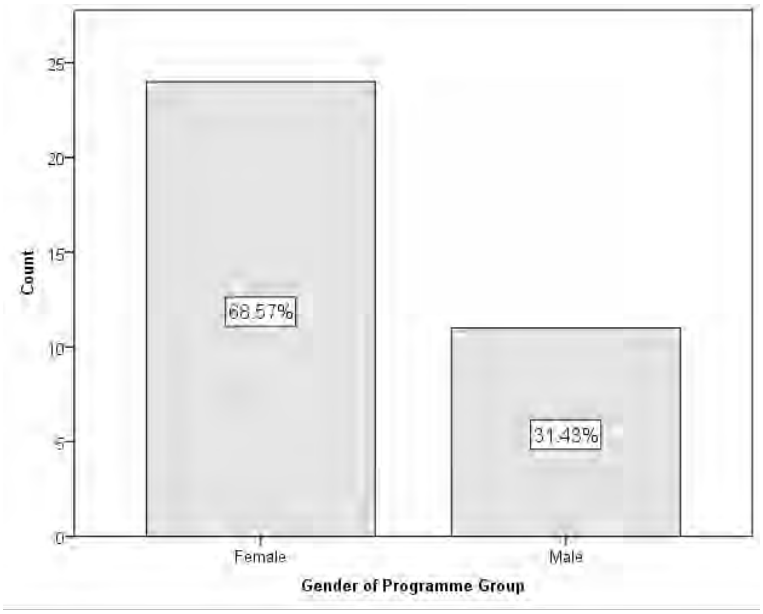


*Figure a.* Gender distribution of programme group.

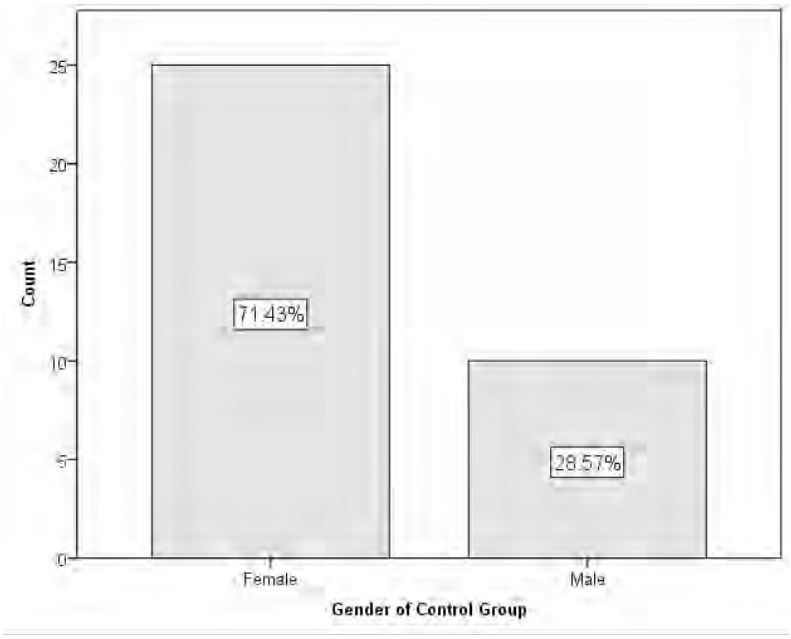


*Figure b*. Gender distribution of control group.

Similarly, a chi-square test was performed to determine equivalence between race and group condition. The result indicated that these too were equally distributed in terms of race, $X^2$ (1, $N$ = 70) = .00, $p$ = 1.00. These distributions are illustrated graphically in figure c and d.

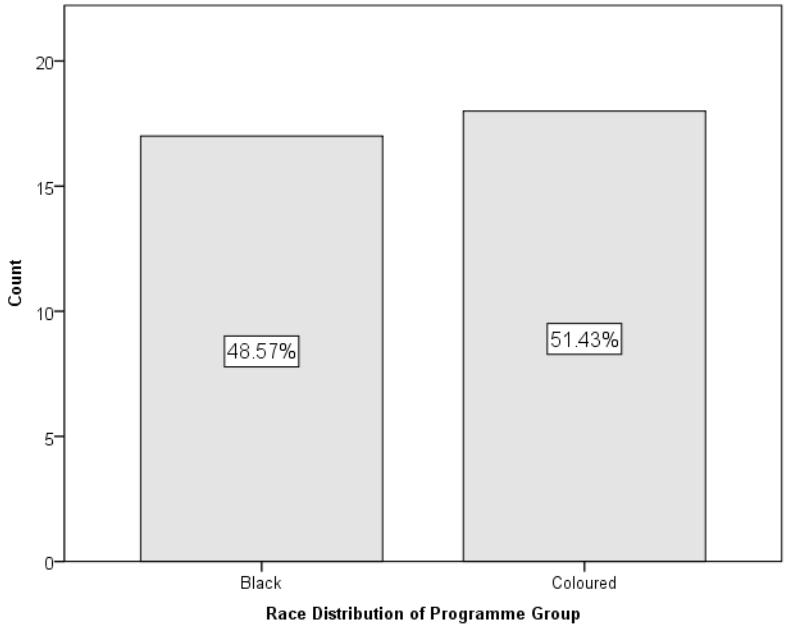


*Figure c*. Race distribution of programme group.

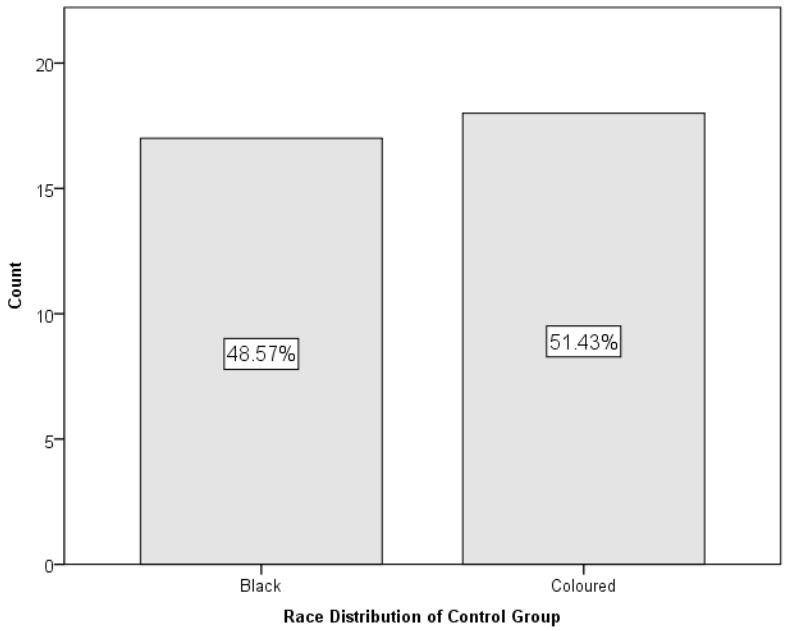


*Figure d*. Race distribution of control group.

Data collected at baseline was also used to investigate equivalence in terms of age for the two groups. Age ranges for both groups overlapped between 15 and 18 years of age. The programme group included three participants who were slightly older (19 years) and the control group included one participant who was marginally younger (14 years). However, 80% of programme participants were between the age of 16 and 17, and 85.7% of control participants fell within this same age category. To corroborate these findings, an independent samples t-test was performed on the data. This showed that age of programme participants ($M$ = 16.43, $SD$ = 1.01) did not differ significantly from age of control group respondents ($M$ = 16.46, $SD$ = 0.82), $t(68)$ = -.13, $p$ = .897. Table A illustrates the age distribution between group conditions.

Table A.

*Age Distribution Between Conditions*

| | Programme Group | | Control Group | |
|---|---|---|---|---|
| Age | Frequency | Percent (%) | Frequency | Percent (%) |
| 14 | - | - | 1 | 2.9 |
| 15 | 3 | 8.6 | 1 | 2.9 |
| 16 | 21 | 60 | 17 | 48.6 |
| 17 | 7 | 20 | 13 | 37.1 |
| 18 | 1 | 2.9 | 3 | 8.6 |
| 19 | 3 | 8.6 | - | - |
| Total | 35 | 100 | 35 | 100 |

## APPENDIX B

Descriptive analysis of demographic variables for primary data samples (SASL surveys and questionnaires) are included below:

Fisher's exact test was performed to assess equivalence of gender between programme and control conditions for data collected mid-2015. Fisher's exact test was used to correct for the different and smaller sample sizes of programme participants ($N = 30$) and control participants ($N = 10$). Fisher's exact test illustrated a non-significant result ($p = .404$), indicating that the distribution of gender between both conditions was relatively equivalent. This is depicted in figure e and f.

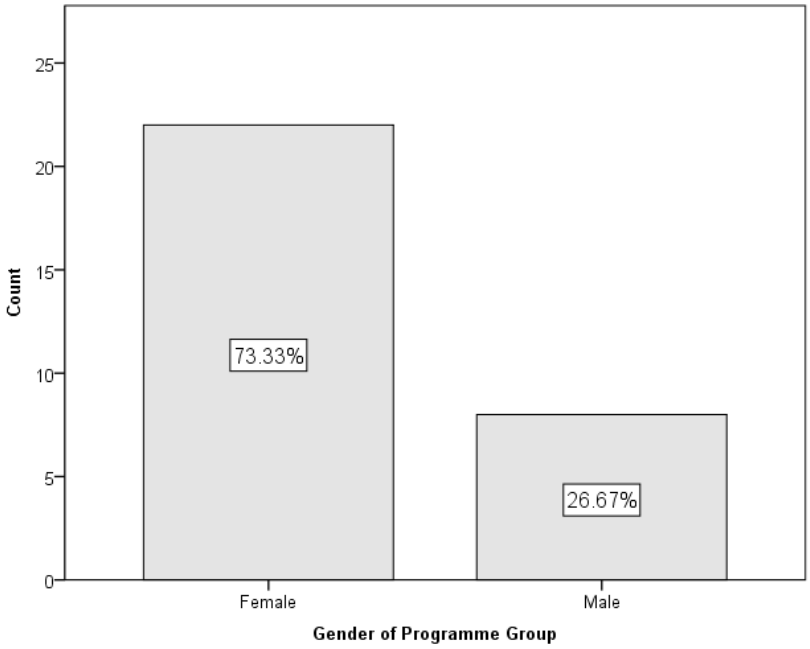


*Figure e.* Gender of programme group.

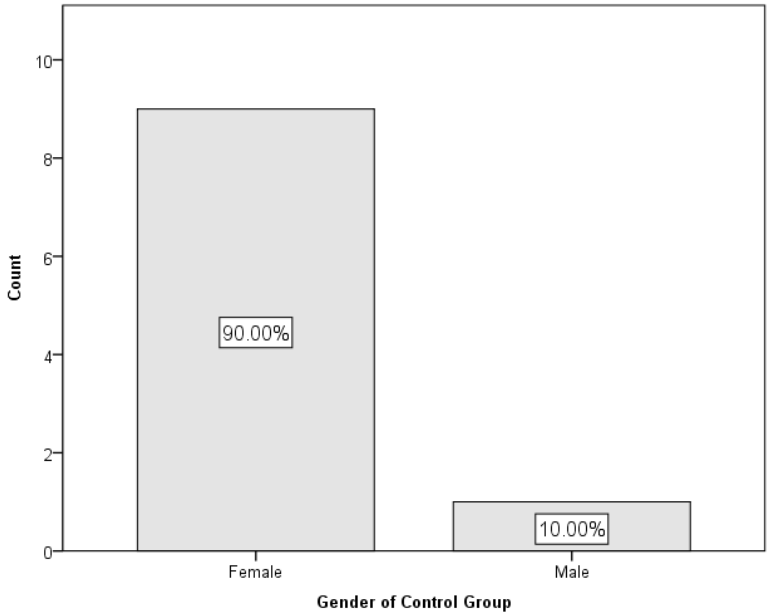


*Figure f.* Gender of control group.

Similarly, Fisher's exact test was performed to assess equivalence of race between programme and control conditions for data collected mid-2015. This also resulted in a non-significant *p*-value ($p = .145$), indicating that the distribution of race between conditions was not markedly different. This is depicted in figures g and h.

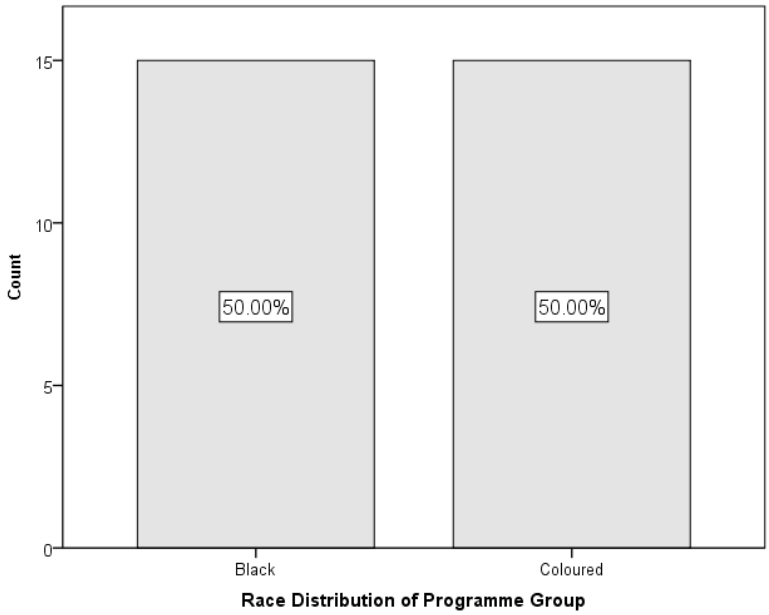


*Figure g*. Race distribution of programme group.

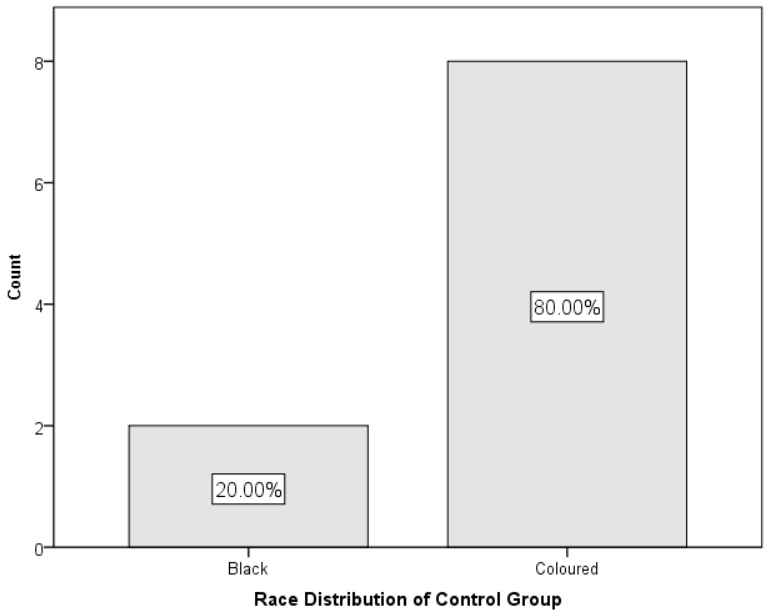


*Figure h*. Race distribution of control group.

Data collected mid-2015 was also used to investigate equivalence in terms of age for the two groups. Table B illustrates that age ranges for both groups overlap between 17 and 20 years of age. The programme group included two participants who were slightly older (21 years). The majority of programme participants and control participants were between the age of 18 and 19 (86.7% and 80% respectively). A Mann-Whitney test indicated that age of programme participants ($M$ = 19.70) did not differ significantly from age of control group respondents ($M$ = 22.90), $U$ = 126, $p$ = .415.

Table B.

*Age Distribution Between Conditions*

| | Programme Group | | Control Group | |
|---|---|---|---|---|
| Age | Frequency | Percent (%) | Frequency | Percent (%) |
| 17 | 1 | 3.3 | 1 | 10 |
| 18 | 15 | 50 | 2 | 20 |
| 19 | 11 | 36.7 | 6 | 60 |
| 20 | 1 | 3.3 | 1 | 10 |
| 21 | 2 | 6.7 | - | - |
| Total | 30 | 100 | 10 | 100 |

**APPENDIX C**

University of Cape Town

**Thank you for participating in this research. Your answers will help me to evaluate the outcomes of the Leaders' Quest programme.**

Do you consent to participating in this research?

| Yes | No |
|---|---|

1) Are you currently enrolled at college/ university etc.?

| Yes | No |
|---|---|

2) What are you studying?

_____

3) Are you currently employed?

| Yes | No |
|---|---|

4) If yes, what work do you do? (Please tick all that are applicable to you)

| Part-time | Full-time | Paid | Unpaid | Self-employed |
|---|---|---|---|---|

5) Do you hold any leadership positions at home/ school/ church etc.?

| Yes | No |
|---|---|

6) Please rate the following statements on a scale from 1 – 7 by indicating how strongly you disagree or how strongly you agree to the following statements about

yourself (1 = strongly disagree; 2 = disagree; 3 = slightly disagree; 4 = undecided; 5 = slightly agree; 6 = agree; 7 = strongly agree (SASL adapted from Taylor, 2007).

| |
|---|
| 1. I am honest with people |
| 2. I learn from those around me |
| 3. I am willing to give up my time to serve others |
| 4. I care about the wellbeing of people around me |
| 5. I often encourage others to take action |
| 6. I enjoy encouraging others to be their best |
| 7. I like to lead others with a strong sense of mission |
| 8. I am very focussed with my work/ studies |
| 9. I often come up with solutions that others think are helpful |
| 10. I lead by example |
| 11. I am willing to give up personal wants in order to achieve group success |
| 12. I am willing to have my ideas challenged |
| 13. I take my own advice |
| 14. I admit when I am wrong |
| 15. I have a heart to serve others |
| 16. Many people come to me with their problems, because I listen well |
| 17. I often encourage others |
| 18. I use a lot of my time and energy to encourage the development of others |
| 19. I am able to inspire others |
| 20. I am able to motivate others to get a task done |
| 21. I try to match people with tasks to achieve the best outcome |
| 22. I often show others how to make decisions and solve a problem |
| 23. I encourage working together rather than competing within a group |
| 24. I encourage the most decisions-making to be made by the people who will be affected by the decisions. |

## APPENDIX D

EQ-i:YV subscale assumption tests are presented below:

### Subscale A: Intrapersonal Functioning

Boxplots for data relating to the intrapersonal functioning subscale produced relatively equal error bars as depicted in figure i, indicating that data is approximately normally distributed.

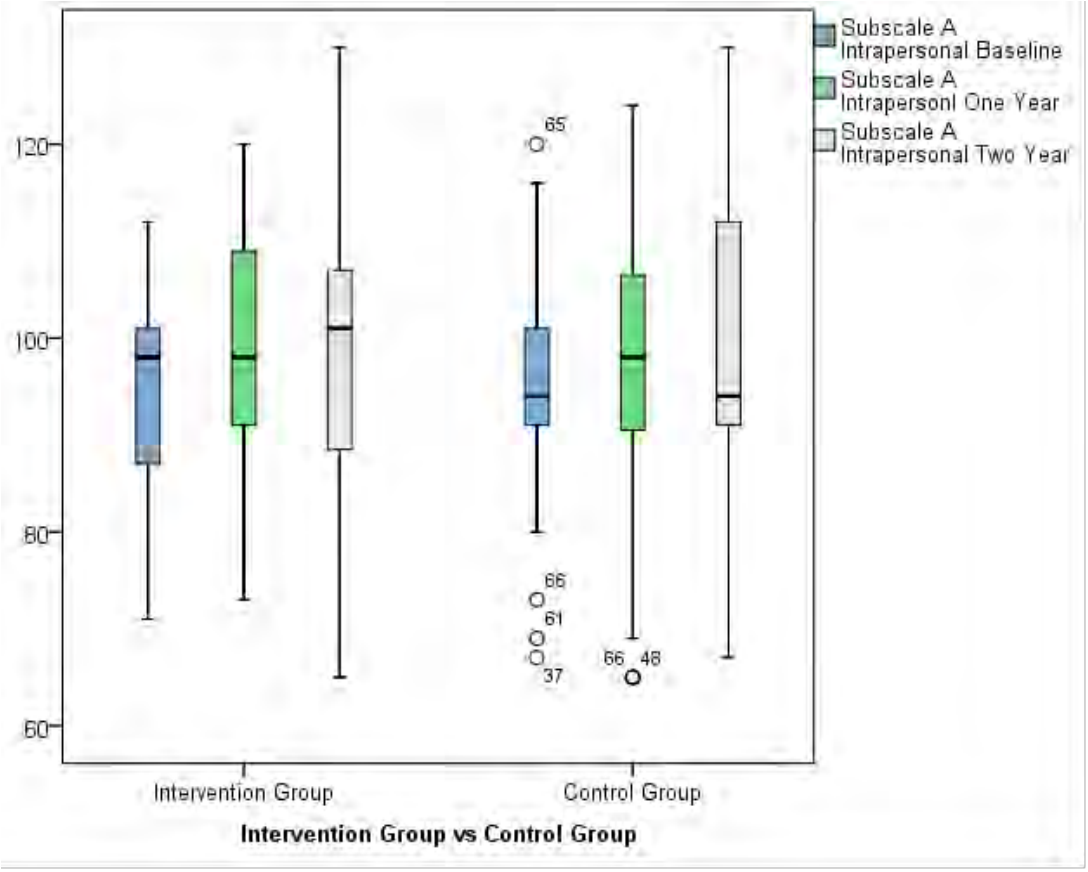


*Figure i*. Boxplots indicating approximate normal distribution of data for intrapersonal functioning.

Levene's test for homogeneity of variance indicates that all three waves of the measure are not statistically significant. This means that the assumption of homogeneity of variance has been upheld. Non-significant *p*-values ($p = .835$; $p = .247$; $p = .635$) are illustrated in table C.

Table C.

*Levene's Test of Equality of Error Variances*[a]

| | *F* | *df1* | *df2* | Sig. |
|---|---|---|---|---|
| Intrapersonal: Baseline | .044 | 1 | 68 | .835 |
| Intrapersonal: 1-year | 1.361 | 1 | 68 | .247 |
| Intrapersonal: 2-years | .227 | 1 | 68 | .635 |

a. Design: Intercept + Intervention Condition

Within Subjects Design: Intrapersonal Functioning

Box's test of equality of covariance matrices indicates equal covariance matrices between intervention and control groups ($p = .179$). A non-significant result on this test means that the assumption of homogeneity of covariances has been upheld. Finally, Mauchly's test of sphericity indicates that the assumption of sphericity has not been violated: $X^2$ (2) = 4.130, $p = .127$. Had this assumption been violated, it would have meant a loss of power, thereby increasing the risk of reporting no effect even when there may have been a statistically significant effect.

**EQi-YV Subscale B: Interpersonal Functioning**

The boxplots for data relating to the interpersonal functioning subscale produced relatively equal error bars for the intervention group but showed very slight negative skew for the control group at one-year and two-year measurements. There are no outliers present. This indicates that data is approximately normally distributed. This is depicted in figure j.

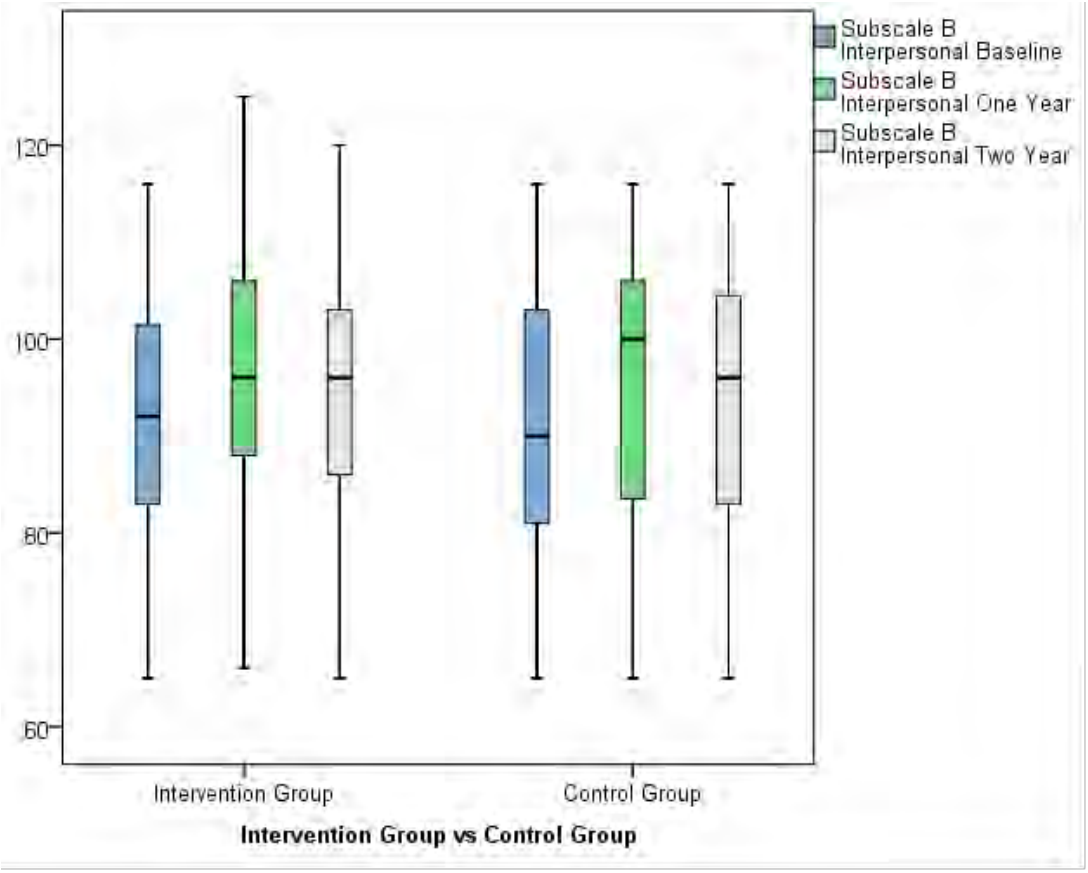


*Figure j*. Boxplots depicting approximate normal distribution of data for interpersonal functioning.

Levene's test for homogeneity of variance indicates that all three waves of this subscale measure were not statistically significant. Therefore, the assumption of homogeneity of variance was upheld. Non-significant *p*-values ($p$ = .713; $p$ = .461; $p$ = .475) are illustrated in table D.

Table D.

*Levene's Test of Equality of Error Variances*[a]

| | *F* | *df1* | *df2* | Sig. |
|---|---|---|---|---|
| Interpersonal: Baseline | .136 | 1 | 68 | .713 |
| Interpersonal: 1-year | .550 | 1 | 68 | .461 |
| Interpersonal: 2-years | .515 | 1 | 68 | .475 |

a. Design: Intercept + Group

Within Subjects Design: Interpersonal Functioning

Box's test of equality of covariance matrices produced a significant *p*-value ($p = .016$). This meant that the assumption of homogeneity of covariances was not upheld.

Mauchly's test of sphericity indicated that the assumption of sphericity was not violated: $X^2$ (2) = 2.171, $p = .338$.

**EQ-i:YV Subscale C: Stress Management**

The boxplots for data relating to the stress management subscale are displayed as figure k. Error bars for both group are relatively equal. No outliers are present. Data is therefore approximately normally distributed.

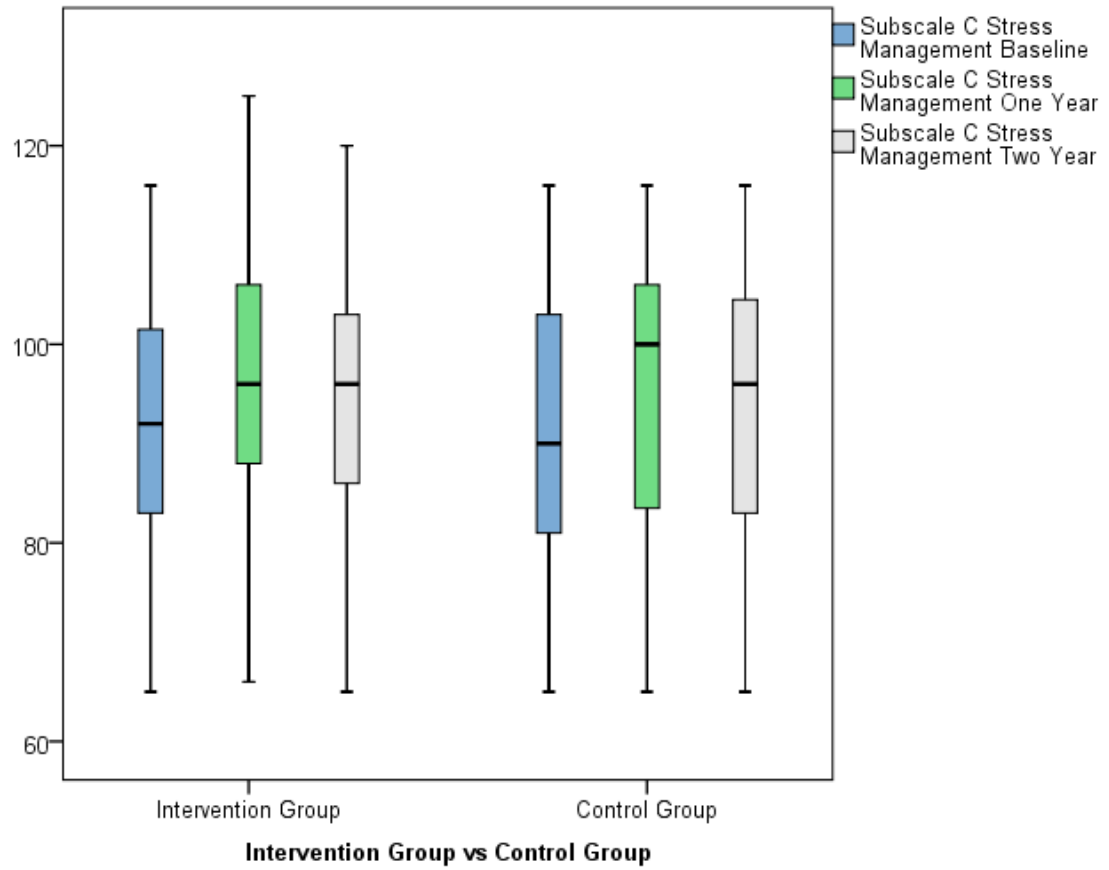


*Figure k.* Boxplots depicting approximately normal distribution of data for stress management

Levene's test for homogeneity of variance indicates that all three waves of this subscale measure are not statistically significant. This means that the assumption of homogeneity of variance has been upheld. Non-significant *p*-values ($p = .304$; $p = .340$; $p = .358$) are illustrated in table E.

Table E.

*Levene's Test of Equality of Error Variances*[a]

| | *F* | *df1* | *df2* | Sig. |
|---|---|---|---|---|
| Stress Management: Baseline | 1.072 | 1 | 68 | .304 |
| Stress Management: 1-year | .925 | 1 | 68 | .340 |
| Stress Management: 2-years | .857 | 1 | 68 | .358 |

a. Design: Intercept + Group

Within Subjects Design: Stress Management

Box's test of equality of covariance matrices indicates a non-significant *p*-value ($p = .283$). This means that the assumption of homogeneity of covariances was upheld.

Mauchly's test of sphericity indicates that the assumption of sphericity has not been upheld: $X^2 (2) = 61.977$, $p < .001$. Therefore, Greenhouse-Geisser (GG) estimates were used to interpret scores measured at various points in time. The GG estimate was also used to interpret any interactions for this subscale.

**EQ-i:YV Subscale D: Adaptability**

The boxplots for data relating to the adaptability subscale displayed slight negative skew for the intervention group at one-year measurement and for the control group at baseline. Quite a substantial number of outliers are depicted in figure l. Due to the fact that the ANOVA test is a robust test with regards to violations of normality, it was decided to go ahead with the analysis.

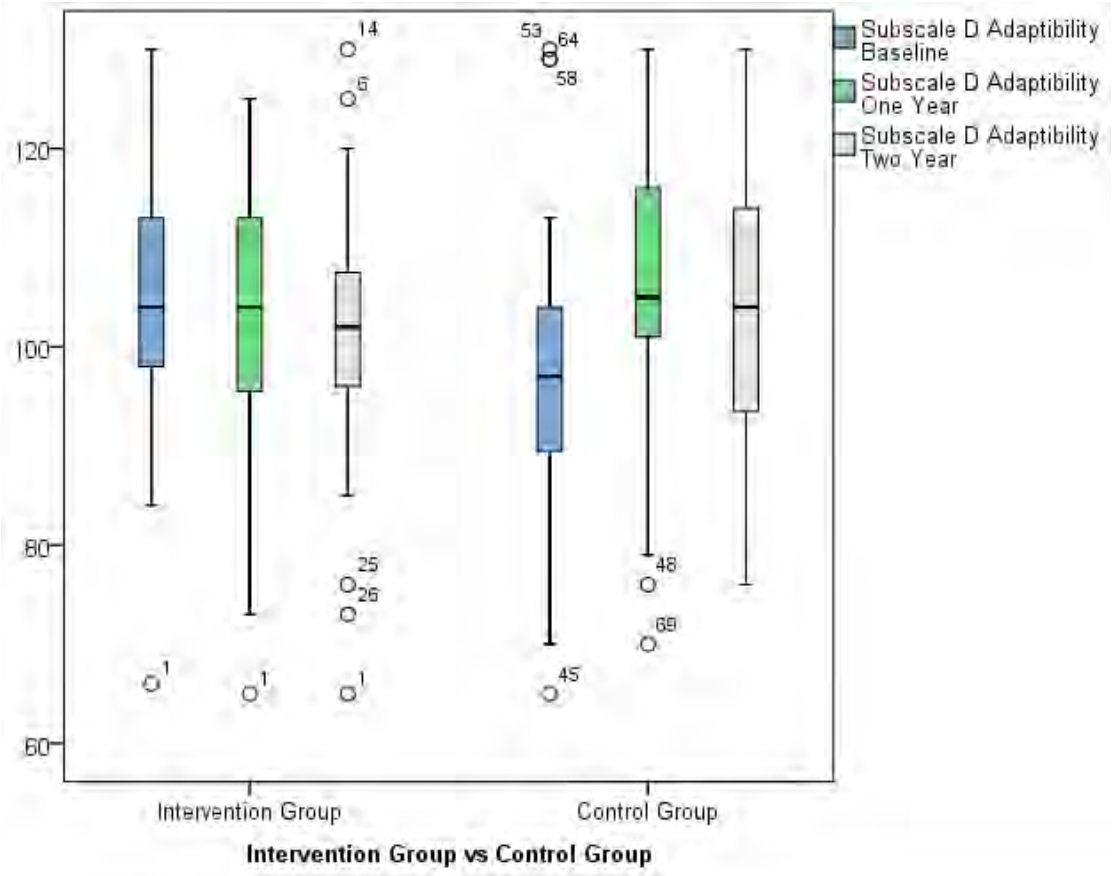


*Figure l*. Boxplots depicting approximate normal distribution of data for adaptability.

Levene's test for homogeneity of variance indicated that all three waves of this subscale measure were not statistically significant, therefore upholding the assumption of homogeneity of variance. Table F displays non-significant *p*-values ($p = .501$; $p = .790$; $p = .297$).

Table F.

*Levene's Test of Equality of Error Variances*[a]

| | *F* | *df1* | *df2* | Sig. |
|---|---|---|---|---|
| Adaptability: Baseline | .458 | 1 | 68 | .501 |
| Adaptability: 1-year | .071 | 1 | 68 | .790 |
| Adaptability: 2-years | 1.103 | 1 | 68 | .297 |

a. Design: Intercept + Group

Within Subjects Design: Adaptability

Box's test of equality of covariance matrices indicated a non-significant *p*-value ($p = .816$). This means that the assumption of homogeneity of covariances was upheld.

Mauchly's test of sphericity indicated that the assumption of sphericity was also upheld: $X^2 (2) = 5.35$, $p = .069$.

**EQ-i:YV Subscale E: General Mood**

The boxplots for data relating to general mood displayed negative skew for both groups at all points of measurement. A small amount of outliers are also depicted. This is illustrated graphically as figure m.

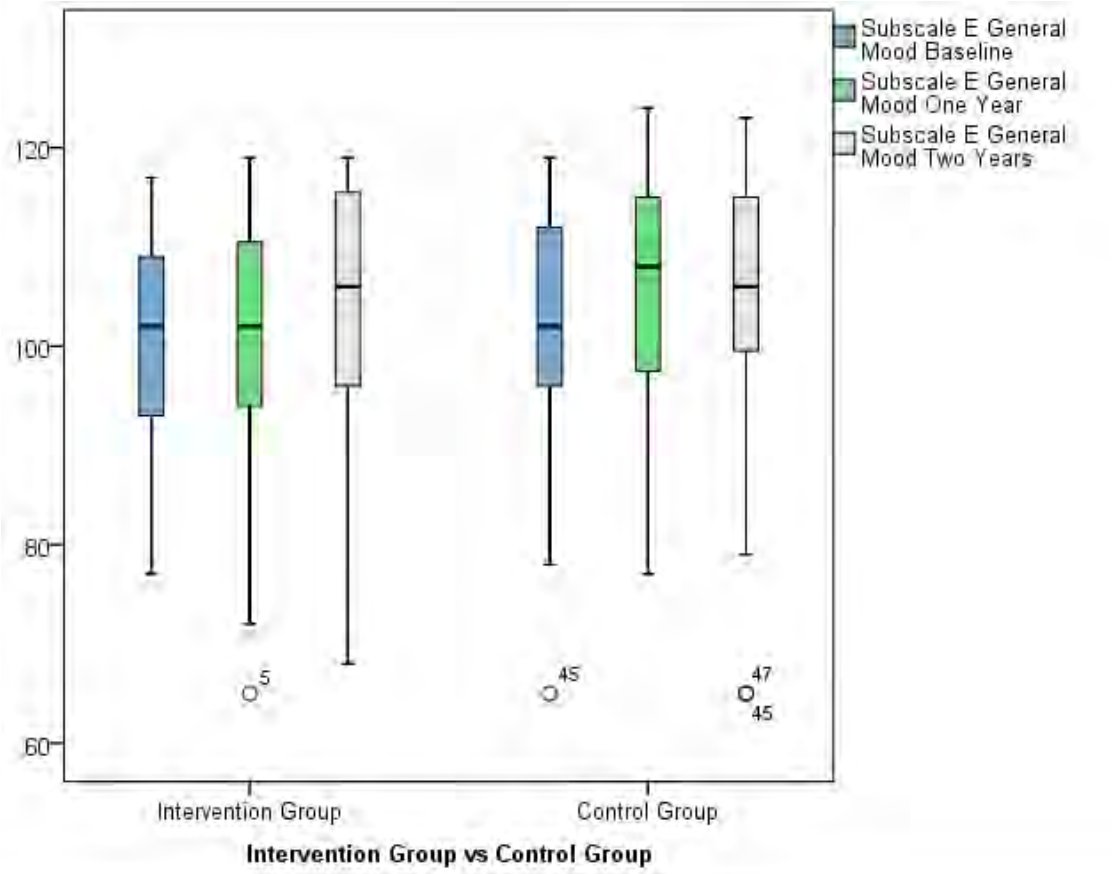


*Figure m*. Boxplots depicting approximately normal distribution of data for general mood.

Levene's test for homogeneity of variance indicates that all three waves of this subscale measure are not statistically significant. This means that the assumption of homogeneity of variance has been upheld. Non-significant *p*-values ($p = .611$; $p = .810$; $p = .946$) are illustrated in table G.

Table G.

*Levene's Test of Equality of Error Variances*[a]

| | *F* | *df1* | *df2* | Sig. |
|---|---|---|---|---|
| General Mood: Baseline | .261 | 1 | 68 | .611 |
| General Mood: 1-year | .058 | 1 | 68 | .810 |
| General Mood: 2-years | .005 | 1 | 68 | .946 |

a. Design: Intercept + Group

Within Subjects Design: General Mood

Box's test of equality of covariance matrices indicated a non-significant *p*-value ($p = .150$). Therefore the assumption of homogeneity of covariances was upheld. Mauchly's test of sphericity indicated that the assumption of sphericity was also upheld: $X^2$ (2) = 2.69, $p = .260$.

**EQ-i:YV Subscale F: Total EQ**

Boxplots for data relating to total emotional quotient produced relatively equal error bars. This indicates that data is approximately normally distributed. There are also only two outliers for both groups combined. This is depicted as figure n.

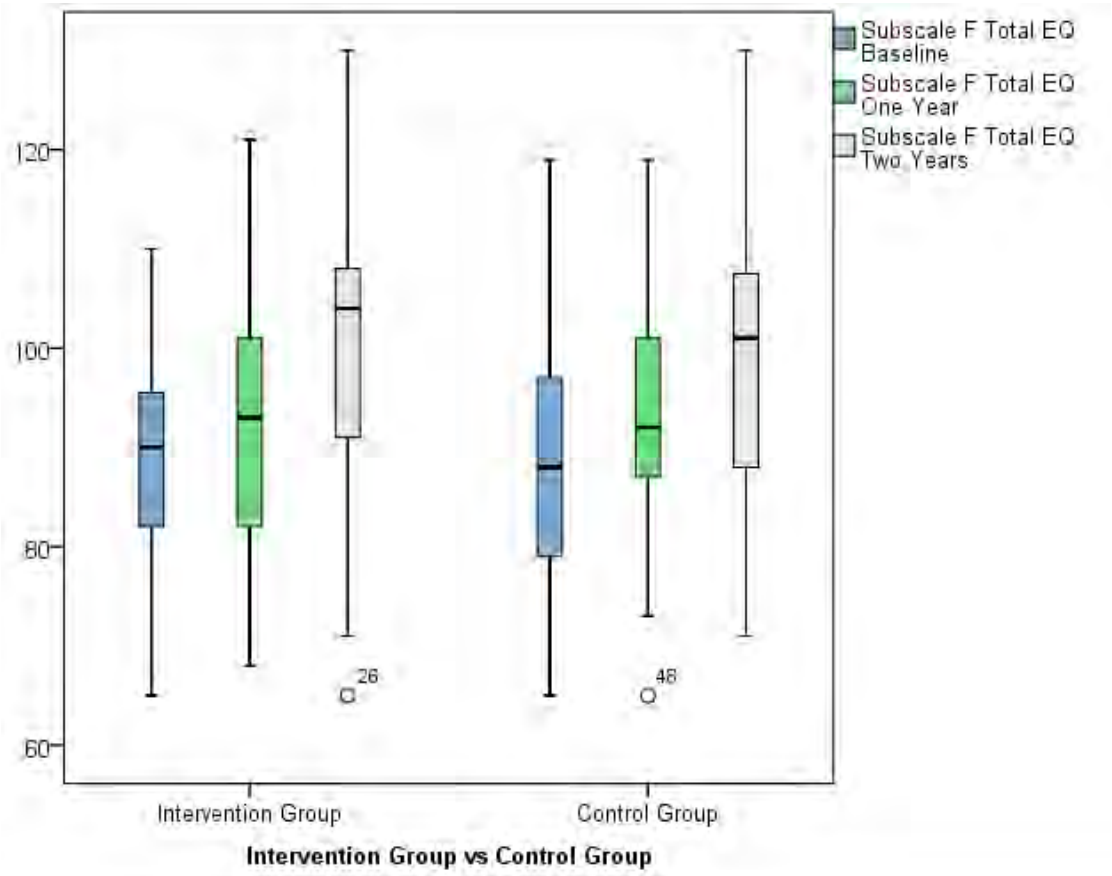


*Figure n*. Boxplots depicting approximate normal distribution of data for total EQ.

Levene's test for homogeneity of variance indicated that all three waves of this subscale measure were not statistically significant, therefore upholding the assumption of homogeneity of variance. Non-significant *p*-values ($p = .233$; $p = .364$; $p = .587$) are illustrated in table H.

Table H.

*Levene's Test of Equality of Error Variances*[a]

| | *F* | *df1* | *df2* | Sig. |
|---|---|---|---|---|
| Total EQ: Baseline | 1.446 | 1 | 68 | .233 |
| Total EQ: 1-year | .835 | 1 | 68 | .364 |
| Total EQ: 2-years | .298 | 1 | 68 | .587 |

a. Design: Intercept + Group

Within Subjects Design: Total EQ

Box's test of equality of covariance matrices indicated a non-significant *p*-value ($p = .184$). This means that the assumption of homogeneity of covariances was upheld. Mauchly's test of sphericity indicated that the assumption of sphericity was not upheld: $X^2 (2) = 10.80$, $p = .005$. Therefore, Greenhouse-Geisser (GG) estimates were used to interpret scores measured at various points in time. The GG estimate was also used to interpret any interactions for this subscale.

## APPENDIX E

Assumption tests for correlation and regression analyses are presented below:

Figure o depicts a linear relationship between EI scores and servant leadership scores. This indicates that the assumption of linearity has been met. The figure below indicates a slightly positive linear relationship, $r = .249$.

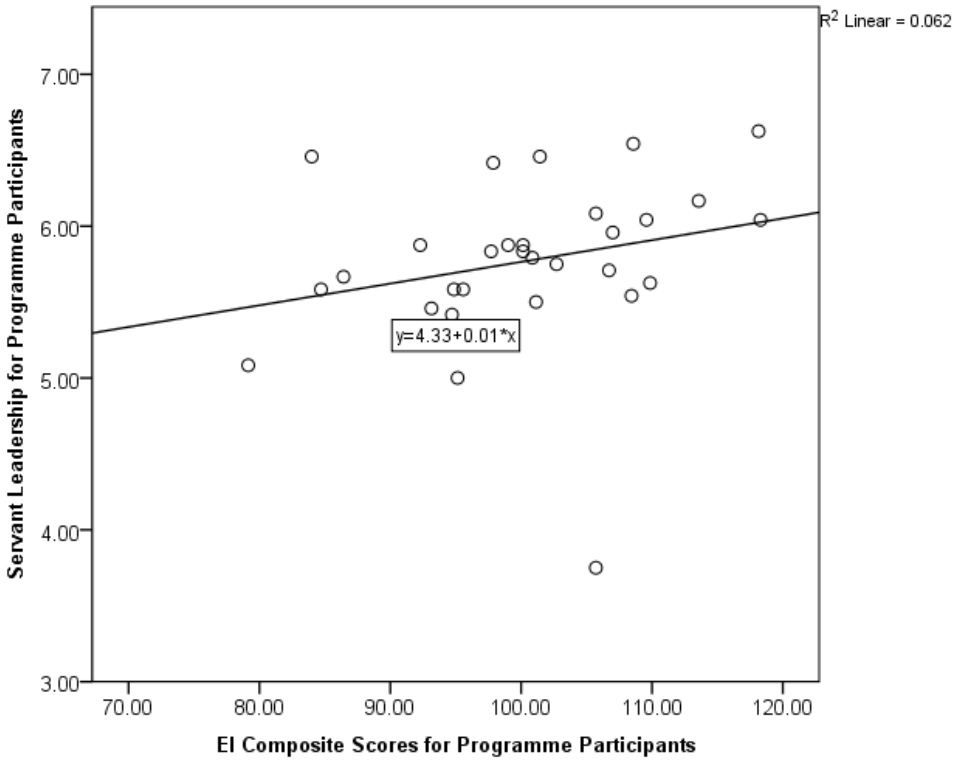


*Figure o.* Scatterplot depicting a linear relationship.

A histogram (figure p) and P-P plot (figure q) were assessed to check that residuals of the regression line were approximately normally distributed. These assumptions appear to have been met. Figure p illustrates an approximate normal distribution of errors, with a slight negative skew.

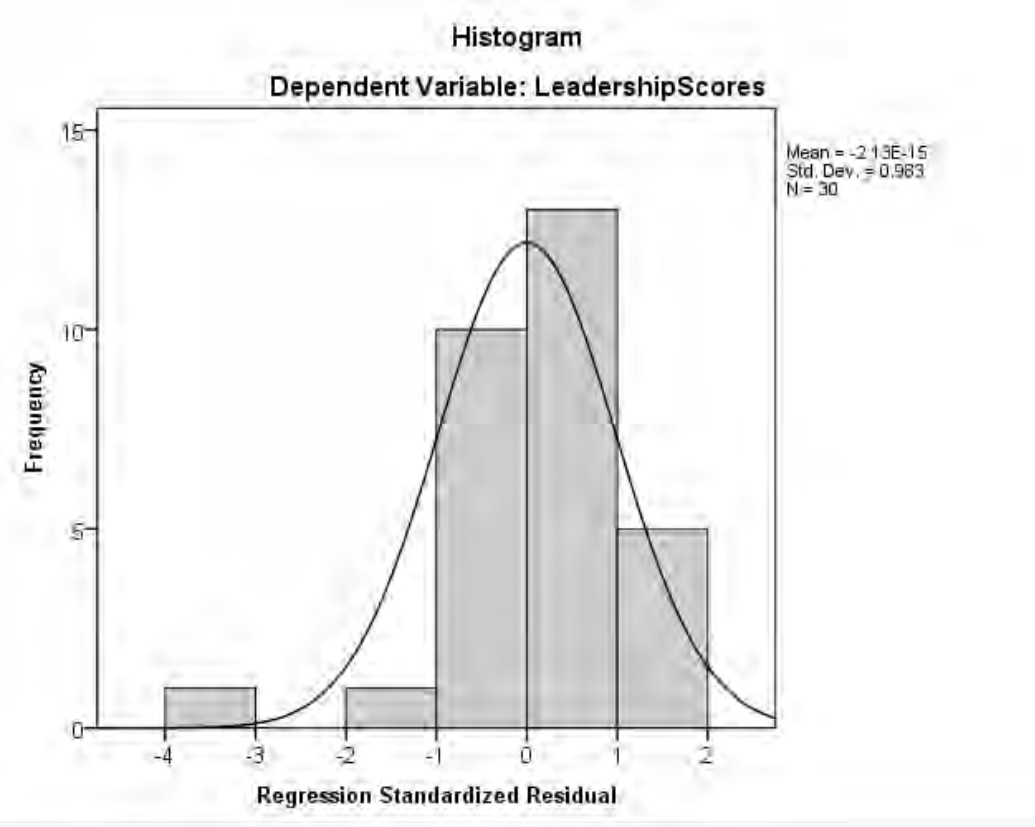


*Figure p.* Histogram showing approximate normal distribution of errors/ standardized residual data.

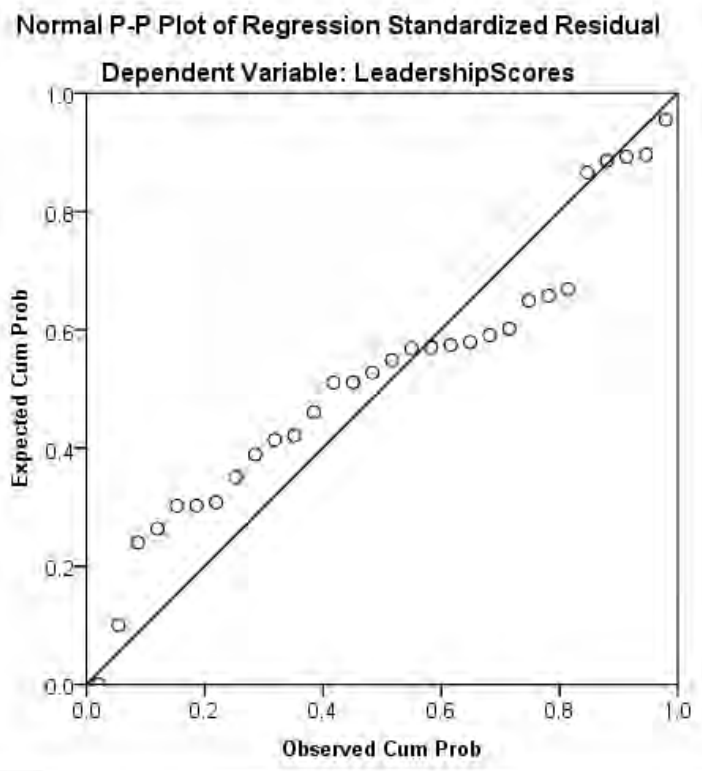


*Figure q.* Normal P-P plot to assess the assumption of normality.

A Durbin-Watson statistic of 2.19 indicates that the assumption of independence of observations has been met.

Assessing the plot of standardized residuals against standardized predicted values (figure r) illustrates a random array of dots. This means that the assumption of homoscedasticity has been met.

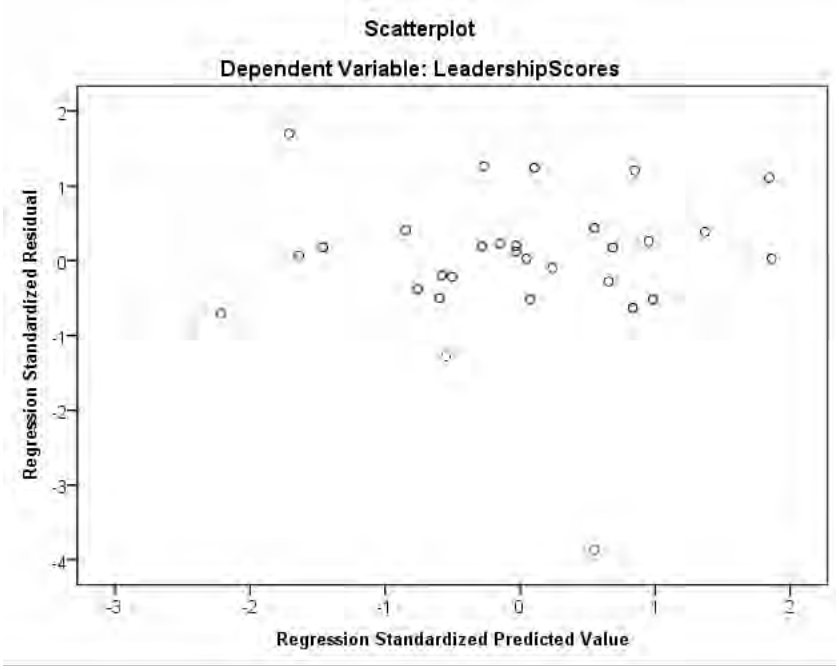


*Figure r*. Scatterplot illustrating the assumption of homoscedasticity.

## APPENDIX F

Table I.

Programme Participants – Extent of Agreement with Servant Leadership Statements

| Statements | Strongly disagree | | Disagree | | Slightly disagree | | Undecided | | Slightly agree | | Agree | | Strongly agree | | Tot |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Count | % | Count | % | Count | % | Count | % | Count | % | Count | % | Count | % | |
| I am honest with other people | 0 | 0% | 0 | 0% | 1 | 3.3% | 1 | 3.3% | 6 | 20% | 12 | 40% | 10 | 33.3% | 30 |
| I learn from the people around me | 0 | 0% | 0 | 0% | 0 | 0% | 2 | 6.7% | 2 | 6.7% | 13 | 43.3% | 13 | 43.3% | 30 |
| I am willing to give up my time to serve others | 0 | 0% | 0 | 0% | 0 | 0% | 2 | 6.7% | 8 | 26.7% | 11 | 36.7% | 9 | 30% | 30 |
| I care about the well-being of the people around me | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 3.3% | 4 | 13.3% | 10 | 33.3% | 15 | 50% | 30 |
| I often motivate other people to take action | 0 | 0% | 0 | 0% | 0 | 0% | 2 | 6.7% | 6 | 20% | 9 | 30% | 13 | 43.3% | 30 |
| I enjoy encouraging others to be their best | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 3.3% | 3 | 10% | 11 | 36.75 | 15 | 50% | 30 |
| I like to lead others with a strong sense of mission | 0 | 0% | 0 | 0% | 0 | 0% | 2 | 6.7% | 5 | 16.7% | 13 | 43.3% | 10 | 33.3% | 30 |
| I am very focussed on my work/ studies | 0 | 0% | 0 | 0% | 0 | 0% | 2 | 6.7% | 9 | 30% | 13 | 43.3% | 6 | 20% | 30 |
| I often come up with solutions that are helpful to other people | 0 | 0% | 0 | 0% | 1 | 3.3% | 3 | 10% | 12 | 40% | 9 | 30% | 5 | 16.7% | 30 |
| I lead by example | 1 | 3.3% | 0 | 0% | 0 | 0% | 3 | 10% | 10 | 33.3% | 13 | 43.3% | 3 | 10% | 30 |
| I am willing to give up personal wants in | 0 | 0% | 0 | 0% | 0 | 0% | 5 | 16.7% | 7 | 23.3% | 8 | 26.7% | 10 | 33.3% | 30 |

| Statements | Strongly disagree | | Disagree | | Slightly disagree | | Undecided | | Slightly agree | | Agree | | Strongly agree | | Tot |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Count | % | Count | % | Count | % | Count | % | Count | % | Count | % | Count | % | |
| order to achieve group success | | | | | | | | | | | | | | | |
| I am willing to have my ideas challenged | 1 | 3.3% | 0 | 0% | 1 | 3.3% | 2 | 6.7% | 6 | 20% | 12 | 40% | 8 | 26.7% | 30 |
| I follow my own advice | 0 | 0% | 1 | 3.3% | 1 | 3.3% | 4 | 13.3% | 11 | 36.7% | 8 | 26.7% | 5 | 16.7% | 30 |
| I can admit when I am wrong | 2 | 6.7% | 1 | 3.3% | 0 | 0% | 3 | 10% | 4 | 13.3% | 10 | 33.3% | 10 | 33.3% | 30 |
| I have a passion to serve others | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 3.3% | 8 | 26.7% | 8 | 26.7% | 13 | 43.3% | 30 |
| Many people come to me with their problems because I listen well | 0 | 0% | 0 | 0% | 1 | 3.3% | 3 | 10% | 6 | 20% | 7 | 23.3% | 13 | 43.3% | 30 |
| I often encourage others | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 3.3% | 5 | 16.7% | 10 | 33.3% | 14 | 46.7% | 30 |
| I use a lot of my time and energy to encourage the development of other people | 0 | 0% | 0 | 0% | 1 | 3.3% | 8 | 26.7% | 15 | 50% | 3 | 10% | 3 | 10% | 30 |
| I am able to inspire others | 0 | 0% | 0 | 0% | 0 | 0% | 1 | 3.3% | 9 | 30% | 13 | 43.3% | 7 | 23.3% | 30 |
| I am able to motivate others to get a task done | 0 | 0% | 0 | 0% | 0 | 0% | 4 | 13.3% | 9 | 30% | 11 | 36.7% | 6 | 20% | 30 |
| During group work I try to match people with tasks to achieve the best outcome | 1 | 3.3% | 0 | 0% | 2 | 6.7% | 4 | 13.3% | 6 | 20% | 12 | 40% | 5 | 16.7% | 30 |
| I often show others how to make | 0 | 0% | 0 | 0% | 2 | 6.7% | 4 | 13.3% | 12 | 40% | 10 | 33.3% | 2 | 6.7% | 30 |

| Statements | Strongly disagree | | Disagree | | Slightly disagree | | Undecided | | Slightly agree | | Agree | | Strongly agree | | Tot |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Count | % | Count | % | Count | % | Count | % | Count | % | Count | % | Count | % | |
| decisions and solve a problem | | | | | | | | | | | | | | | |
| I encourage working together, rather than competing within a group | 0 | 0% | 0 | 0% | 0 | 0% | 4 | 13.3% | 2 | 6.7% | 9 | 30% | 15 | 50% | 30 |
| I believe that the people who will be most affected by decisions should be the ones making those decisions | 1 | 3.3% | 2 | 6.7% | 2 | 6.7% | 3 | 10% | 4 | 13.3% | 10 | 33.3% | 8 | 26.7% | 30 |

| Statements | *M* | *Mdn* | Mode | *SD* | Range | Min. | Max. |
|---|---|---|---|---|---|---|---|
| I am honest with other people | 5.97 | 6.00 | 6 | 0.99 | 4 | 3 | 7 |
| I learn from the people around me | 6.23 | 6.00 | 6a | 0.85 | 3 | 4 | 7 |
| I am willing to give up my time to serve others | 5.90 | 6.00 | 6 | 0.92 | 3 | 4 | 7 |
| I care about the well-being of the people around me | 6.30 | 6.50 | 7 | 0.83 | 3 | 4 | 7 |
| I often motivate other people to take action | 6.10 | 6.00 | 7 | 0.96 | 3 | 4 | 7 |
| I enjoy encouraging others to be their best | 6.33 | 6.50 | 7 | 0.80 | 3 | 4 | 7 |
| I like to lead others with a strong sense of mission | 6.03 | 6.00 | 6 | 0.89 | 3 | 4 | 7 |
| I am very focussed on my work/ studies | 5.77 | 6.00 | 6 | 0.85 | 3 | 4 | 7 |
| I often come up with solutions that are helpful to other people | 5.47 | 5.00 | 5 | 1.00 | 4 | 3 | 7 |
| I lead by example | 5.40 | 6.00 | 6 | 1.16 | 6 | 1 | 7 |
| I am willing to give up personal wants in order to achieve group success | 5.77 | 6.00 | 7 | 1.10 | 3 | 4 | 7 |
| I am willing to have my ideas challenged | 5.67 | 6.00 | 6 | 1.34 | 6 | 1 | 7 |
| I follow my own advice | 5.30 | 5.00 | 5 | 1.20 | 5 | 2 | 7 |
| I can admit when I am wrong | 5.53 | 6.00 | 6a | 1.71 | 6 | 1 | 7 |
| I have a passion to serve others | 6.10 | 6.00 | 7 | 0.92 | 3 | 4 | 7 |
| Many people come to me with their problems because I listen well | 5.93 | 6.00 | 7 | 1.17 | 4 | 3 | 7 |
| I often encourage others | 6.23 | 6.00 | 7 | 0.85 | 3 | 4 | 7 |
| I use a lot of my time and energy to encourage the development of other people | 4.97 | 5.00 | 5 | 0.96 | 4 | 3 | 7 |
| I am able to inspire others | 5.87 | 6.00 | 6 | 0.81 | 3 | 4 | 7 |
| I am able to motivate others to get a task done | 5.63 | 6.00 | 6 | 0.96 | 3 | 4 | 7 |
| During group work I try to match people with tasks to achieve the best outcome | 5.33 | 6.00 | 6 | 1.39 | 6 | 1 | 7 |
| I often show others how to make decisions and solve a problem | 5.20 | 5.00 | 5 | 0.99 | 4 | 3 | 7 |
| I encourage working together, rather than competing within a group | 6.17 | 6.50 | 7 | 1.05 | 3 | 4 | 7 |
| I believe that the people who will be most affected by decisions should be the ones making those decisions | 5.30 | 6.00 | 6 | 1.70 | 6 | 1 | 7 |

Table J.

Control Participants – Extent of Agreement with Servant Leadership Statements

| Statements | Strongly disagree | | Disagree | | Slightly disagree | | Undecided | | Slightly agree | | Agree | | Strongly agree | | Tot |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Count | % | Count | % | Count | % | Count | % | Count | % | Count | % | Count | % | |
| I am honest with other people | 1 | 10% | 0 | 0% | 0 | 0% | 1 | 10% | 2 | 20% | 2 | 20% | 4 | 40% | 10 |
| I learn from the people around me | 0 | 0% | 0 | 0% | 1 | 10% | 1 | 10% | 2 | 20% | 4 | 40% | 2 | 20% | 10 |
| I am willing to give up my time to serve others | 0 | 0% | 1 | 10% | 2 | 20% | 0 | 0% | 1 | 10% | 4 | 40% | 2 | 20% | 10 |
| I care about the well-being of the people around me | 1 | 10% | 0 | 0% | 0 | 0% | 2 | 20% | 0 | 0% | 4 | 40% | 3 | 30% | 10 |
| I often motivate other people to take action | 1 | 10% | 0 | 0% | 1 | 10% | 1 | 10% | 2 | 20% | 3 | 30% | 2 | 20% | 10 |
| I enjoy encouraging others to be their best | 1 | 10% | 0 | 0% | 1 | 10% | 1 | 10% | 1 | 10% | 4 | 40% | 2 | 20% | 10 |
| I like to lead others with a strong sense of mission | 0 | 0% | 0 | 0% | 1 | 10% | 0 | 10% | 3 | 30% | 2 | 20% | 4 | 40% | 10 |
| I am very focussed on my work/ studies | 0 | 0% | 0 | 0% | 1 | 10% | 0 | 0% | 1 | 10% | 5 | 50% | 3 | 30% | 10 |
| I often come up with solutions that are helpful to other people | 0 | 0% | 0 | 0% | 1 | 10% | 2 | 20% | 2 | 20% | 4 | 40% | 1 | 10% | 10 |
| I lead by example | 0 | 0% | 0 | 0% | 1 | 10% | 2 | 20% | 2 | 20% | 4 | 40% | 1 | 10% | 10 |
| I am willing to give up personal wants in order to achieve group success | 1 | 10% | 1 | 10% | 0 | 0% | 1 | 10% | 3 | 30% | 4 | 40% | 0 | 0% | 10 |
| I am willing to have my ideas challenged | 1 | 10% | 0 | 0% | 1 | 10% | 0 | 0% | 1 | 10% | 5 | 50% | 2 | 20% | 10 |
| I follow my own advice | 1 | 10% | 0 | 0% | 2 | 20% | 1 | 10% | 3 | 30% | 1 | 10% | 2 | 20% | 10 |
| I can admit when I am wrong | 1 | 10% | 0 | 10% | 1 | 10% | 2 | 20% | 2 | 20% | 0 | 0% | 4 | 40% | 10 |

| Statements | Strongly disagree | | Disagree | | Slightly disagree | | Undecided | | Slightly agree | | Agree | | Strongly agree | | Tot |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Count | % | Count | % | Count | % | Count | % | Count | % | Count | % | Count | % | |
| I have a passion to serve others | 0 | 0% | 0 | 0% | 1 | 10% | 2 | 20% | 2 | 20% | 4 | 40% | 1 | 10% | 10 |
| Many people come to me with their problems because I listen well | 0 | 0% | 0 | 0% | 3 | 30% | 1 | 10% | 2 | 20% | 1 | 10% | 3 | 30% | 10 |
| I often encourage others | 1 | 10% | 0 | 0% | 1 | 10% | 0 | 0% | 4 | 40% | 2 | 20% | 2 | 20% | 10 |
| I use a lot of my time and energy to encourage the development of other people | 1 | 10% | 1 | 10% | 1 | 10% | 2 | 20% | 1 | 10% | 3 | 30% | 1 | 10% | 10 |
| I am able to inspire others | 1 | 10% | 1 | 10% | 1 | 10% | 0 | 0% | 2 | 20% | 3 | 30% | 2 | 20% | 10 |
| I am able to motivate others to get a task done | 1 | 10% | 0 | 0% | 1 | 10% | 1 | 10% | 0 | 0% | 5 | 50% | 2 | 205 | 10 |
| During group work I try to match people with tasks to achieve the best outcome | 0 | 0% | 0 | 0% | 0 | 0% | 2 | 20% | 1 | 10% | 4 | 40% | 3 | 30% | 10 |
| I often show others how to make decisions and solve a problem | 0 | 0% | 0 | 0% | 2 | 20% | 0 | 0% | 1 | 10% | 5 | 50% | 2 | 20% | 10 |
| I encourage working together, rather than competing within a group | 0 | 0% | 0 | 0% | 1 | 10% | 0 | 0% | 4 | 40% | 2 | 20% | 3 | 30% | 10 |
| I believe that the people who will be most affected by decisions should be the ones making those decisions | 0 | 0% | 0 | 0% | 2 | 20% | 0 | 0% | 1 | 10% | 4 | 40% | 3 | 30% | 10 |

| Statements | *M* | *Mdn* | Mode | *SD* | Range | Min. | Max. |
|---|---|---|---|---|---|---|---|
| I am honest with other people | 5.50 | 6.00 | 7 | 1.90 | 6 | 1 | 7 |
| I learn from the people around me | 5.50 | 6.66 | 6 | 1.27 | 4 | 3 | 7 |
| I am willing to give up my time to serve others | 5.10 | 6.00 | 6 | 1.79 | 5 | 2 | 7 |
| I care about the well-being of the people around me | 5.40 | 6.00 | 6 | 1.89 | 6 | 1 | 7 |
| I often motivate other people to take action | 5.00 | 5.50 | 6 | 1.88 | 6 | 1 | 7 |
| I enjoy encouraging others to be their best | 5.10 | 6.00 | 6 | 1.91 | 6 | 1 | 7 |
| I like to lead others with a strong sense of mission | 5.80 | 6.00 | 7 | 1.31 | 4 | 3 | 7 |
| I am very focussed on my work/ studies | 5.90 | 6.00 | 6 | 1.19 | 4 | 3 | 7 |
| I often come up with solutions that are helpful to other people | 5.20 | 5.50 | 6 | 1.22 | 4 | 3 | 7 |
| I lead by example | 5.20 | 5.50 | 6 | 1.22 | 4 | 3 | 7 |
| I am willing to give up personal wants in order to achieve group success | 4.60 | 5.00 | 6 | 1.77 | 5 | 1 | 6 |
| I am willing to have my ideas challenged | 5.30 | 6.00 | 6 | 1.88 | 6 | 1 | 7 |
| I follow my own advice | 4.60 | 5.00 | 5 | 1.89 | 6 | 1 | 7 |
| I can admit when I am wrong | 5.00 | 5.00 | 7 | 2.05 | 6 | 1 | 7 |
| I have a passion to serve others | 5.20 | 5.50 | 6 | 1.22 | 4 | 3 | 7 |
| Many people come to me with their problems because I listen well | 5.00 | 5.00 | 3a | 1.70 | 4 | 3 | 7 |
| I often encourage others | 5.00 | 5.00 | 5 | 1.82 | 6 | 1 | 7 |
| I use a lot of my time and energy to encourage the development of other people | 4.40 | 4.50 | 6 | 1.95 | 6 | 1 | 7 |
| I am able to inspire others | 4.80 | 5.50 | 6 | 2.09 | 6 | 1 | 7 |
| I am able to motivate others to get a task done | 5.20 | 6.00 | 6 | 1.93 | 6 | 1 | 7 |
| During group work I try to match people with tasks to achieve the best outcome | 5.80 | 6.00 | 6 | 1.13 | 3 | 4 | 7 |
| I often show others how to make decisions and solve a problem | 5.50 | 6.00 | 6 | 1.43 | 4 | 3 | 7 |
| I encourage working together, rather than competing within a group | 5.60 | 5.50 | 5 | 1.26 | 4 | 3 | 7 |
| I believe that the people who will be most affected by decisions should be the ones making those decisions | 5.60 | 6.00 | 6 | 1.50 | 4 | 3 | 7 |