



**THE RELATIONSHIP AMONG SELF-LEADERSHIP, LOCUS OF CONTROL AND JOB  
PERFORMANCE OF ENGINEERS IN A POWER DISTRIBUTION UTILITY, ESKOM.**

**BY**

**DISEBO LOTTY MODISE**

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**SUPERVISOR: DR P. RAMBE**

**CO-SUPERVISOR: PROF C. CHIPUNZA**

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## DECLARATION

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## **DEDICATION**

I dedicate this thesis to my late mother and grandmother!



## TABLE OF CONTENTS

<b>DECLARATION</b> .....	<b>II</b>
<b>ACKNOWLEDGEMENTS</b> .....	<b>III</b>
<b>DEDICATION</b> .....	<b>IV</b>
<b>LIST OF TABLES</b> .....	<b>X</b>
<b>LIST OF FIGURES</b> .....	<b>XI</b>
<b>LIST OF ABBRAVIATIONS</b> .....	<b>XII</b>
<b>ABSTRACT</b> .....	<b>XIII</b>
<b>CHAPTER ONE: INTRODUCTION TO THE STUDY</b> .....	<b>1</b>
<b>1.1. INTRODUCTION</b> .....	<b>2</b>
1.1.1. AN OVERVIEW OF ESKOM AND ITS ASSOCIATED CHALLENGES .....	2
1.1.2. ESKOM OPERATIVES (ENGINEERS), SELF-LEADERSHIP, LOCUS OF CONTROL AND JOB PERFORMANCE .....	4
<b>1.2. PROBLEM BACKGROUND</b> .....	<b>5</b>
1.2.1. ESKOM ELECTRICITY SUPPLY .....	5
1.2.2. ESKOM'S PERFORMANCE CONSTRAINTS.....	6
1.2.3. GLOBAL ENTREPRENEURSHIP MONITOR (GEM) EXECUTIVE REPORT, JOHANNESBURG STOCK EXCHANGE AND THE APARTHEID LEGACY IMPLICATIONS FOR ESKOM .....	6
<b>1.3. PROBLEM STATEMENT</b> .....	<b>8</b>
<b>1.4. RESEARCH AIM</b> .....	<b>9</b>
1.4.1. RESEARCH OBJECTIVES .....	10
1.4.2. MAIN QUESTION .....	10
1.4.2.1. Sub questions .....	10
<b>1.5. PROPOSED CONCEPTUAL FRAMEWORK</b> .....	<b>11</b>
<b>1.6. SIGNIFICANCE OF THE STUDY</b> .....	<b>12</b>
<b>1.7. LIMITATIONS OF THE STUDY</b> .....	<b>12</b>
<b>1.8. OUTLINE OF THE STUDY</b> .....	<b>13</b>
<b>1.9. CONCLUDING REMARKS</b> .....	<b>14</b>
<b>CHAPTER TWO: SELF-LEADERSHIP, LOCUS OF CONTROL AND JOB PERFORMANCE</b> ...	<b>15</b>
.....	
<b>2.1. INTRODUCTION</b> .....	<b>16</b>

<b>2.2. SELF-LEADERSHIP .....</b>	<b>16</b>
<b>2.3. COMPONENTS OF SELF-LEADERSHIP .....</b>	<b>17</b>
2.3.1. BEHAVIOR ORIENTED STRATEGIES .....	17
2.3.1.1. Self-goal setting .....	18
2.3.1.2. Self-reward strategy.....	18
2.3.1.3. Self-observation.....	18
2.3.1.4. Self-cueing.....	18
2.3.1.5. Self-punishment/ self-reinforcement .....	19
2.3.2. NATURAL REWARD STRATEGIES.....	19
2.3.3. CONSTRUCTIVE THOUGHT PATTERN STRATEGIES.....	20
2.3.3.1. Visualizing successful performance.....	21
2.3.3.2. Self-talk.....	21
2.3.3.3. Evaluating beliefs and assumptions.....	21
<b>2.4. PERSPECTIVES ON SELF-LEADERSHIP .....</b>	<b>22</b>
2.4.1. SELF-LEADERSHIP AS AUTHENTICITY.....	23
2.4.2. SELF-LEADERSHIP AS EXPANDING CAPACITY.....	23
2.4.3. COLLABORATION AS A SELF-LEADERSHIP STRATEGY.....	24
2.4.4. EMOTIONAL SELF-LEADERSHIP .....	26
<b>2.5. THEORIES OF SELF-LEADERSHIP .....</b>	<b>27</b>
2.5.1. SOCIAL COGNITIVE THEORY .....	27
2.5.2. GOAL SETTING THEORY.....	29
<b>2.6. STUDIES ON SELF-LEADERSHIP .....</b>	<b>31</b>
2.6.1. APPLICATION OF SELF-LEADERSHIP IN DEVELOPED AND EMERGING ECONOMIES .....	31
2.6.1.1. United States of America Context.....	31
2.6.1.2. European Context.....	32
2.6.1.3. Middle East Context.....	34
2.6.1.4. South African Context.....	34
<b>2.7. IMPLICATIONS OF SELF-LEADERSHIP ON PERFORMANCE .....</b>	<b>35</b>
<b>2.8. LOCUS OF CONTROL .....</b>	<b>36</b>
<b>2.9. COMPONENTS OF LOCUS OF CONTROL.....</b>	<b>36</b>
2.9.1. INTERNAL LOCUS OF CONTROL.....	36
2.9.2. EXTERNAL LOCUS OF CONTROL .....	36
<b>2.10. VARIOUS PERSPECTIVES ON LOCUS OF CONTROL .....</b>	<b>37</b>

<b>2.11. THEORIES ON LOCUS OF CONTROL.....</b>	<b>40</b>
2.11.1.    SOCIAL LEARNING THEORY .....	40
2.11.2.    THEORY OF PLANNED BEHAVIOR.....	41
<b>2.12. STUDIES OF LOCUS OF CONTROL IN GENERAL .....</b>	<b>42</b>
<b>2.13. APPLICATION OF LOCUS OF CONTROL IN DEVELOPED AND EMERGING ECONOMIES.....</b>	<b>48</b>
2.13.1.    Unites States of America Context .....	48
2.13.2.    European Context .....	49
2.13.3.    Middle East context.....	49
2.13.4.    South African Context .....	50
<b>2.14. IMPLICATIONS OF LOCUS OF CONTROL FOR JOB PERFORMANCE .....</b>	<b>51</b>
<b>2.15. JOB PERFORMANCE .....</b>	<b>52</b>
<b>2.16. COMPONENTS OF JOB PERFORMANCE.....</b>	<b>53</b>
2.16.1.    TASK PERFORMANCE.....	53
2.16.2.    CONTEXTUAL PERFORMANCE .....	54
<b>2.17. STUDIES ON JOB PERFORMANCE .....</b>	<b>54</b>
<b>2.18. RELATIONSHIPS AMONG SELF-LEADERSHIP, LOCUS OF CONTROL AND JOB PERFORMANCE.....</b>	<b>56</b>
<b>2.19. CONCETUALIZATION OF SELF-LEADERSHIP, LOCUS OF CONTROL AND JOB PERFORMANCE.....</b>	<b>57</b>
<b>2.20. SUMMARY OF THE CHAPTER.....</b>	<b>58</b>
<b>CHAPTER THREE: METHODOLOGY.....</b>	<b>59</b>
<b>3.1. INTRODUCTION .....</b>	<b>60</b>
<b>3.2. RESEARCH METHODOLOGY .....</b>	<b>60</b>
<b>3.3 EPISTEMOLOGY .....</b>	<b>60</b>
<b>3.4. RESEARCH APPROACH .....</b>	<b>61</b>
<b>3.5. RESEARCH DESIGN .....</b>	<b>61</b>
3.5.1.    POPULATION .....	62
3.5.2.    SAMPLE.....	62
3.5.2.1.    Sampling procedure.....	63
3.5.3.    DATA COLLECTION.....	63
3.5.4    QUESTIONNAIRE DESIGN.....	64
3.5.4.1.    Revised Self-Leadership Questionnaire .....	65
3.5.4.2.    Rotter's Locus of Control Scale .....	65

3.5.4.3. Reliability of the research instruments .....	66
3.5.5. ADMINISTRATION OF THE QUESTIONNAIRE .....	70
3.5.6. DATA ANALYSIS .....	70
<b>3.6. ETHICAL CONSIDERATIONS OF THE STUDY .....</b>	<b>71</b>
<b>3.7 SUMMARY .....</b>	<b>71</b>
<b>CHAPTER FOUR: PRESENTATION, INTERPRETATION AND DISCUSSION ON FINDINGS</b> .....	<b>72</b>
<b>4.1. INTRODUCTION .....</b>	<b>72</b>
<b>4.2. RESPONSE RATE .....</b>	<b>72</b>
<b>4.3. DEMOGRAPHICS .....</b>	<b>72</b>
<b>4.4. RELIABILITY AND VALIDITY VARIABLE'S AVERAGES .....</b>	<b>80</b>
4.4.1. LOCUS OF CONTROL CONSTRUCT VALIDITY .....	80
4.4.2. SELF-LEADERSHIP CONSTRUCTS VALIDITY .....	81
<b>4.5. NORMALITY TESTS.....</b>	<b>84</b>
4.5.1. LOCUS OF CONTROL .....	85
4.5.2. SELF-LEADERSHIP .....	88
<b>4.6. PRESENTATION, INTERPRETATION AND DISCUSSION ON FINDINGS AND</b> <b>RESPONSE TO RESEARCH QUESTIONS .....</b>	<b>95</b>
4.6.1. MAIN COMPONENTS OF INTERNAL AND EXTERNAL LOCUS OF CONTROL OF ESKOM ENGINEERING WORKFORCE.....	95
4.6.1.1. Internal locus of control.....	95
4.6.1.2. External locus of control .....	99
4.6.2. THE CONSTITUTIVE DIMENSIONS/ COMPONENTS OF SELF-LEADERSHIP OF ESKOM ENGINEERING WORKFORCE.....	101
4.6.2.1. Behavior Focused Strategy .....	101
4.6.2.2. Natural Rewards.....	109
4.6.2.3. Constructive Thought.....	110
4.6.3. THE INFLUENCE OF LOCUS OF CONTROL ON JOB PERFORMANCE OF ESKOM ENGINEERS .....	112
4.6.4. IN WHAT WAY DOES SELF-LEADERSHIP OF ESKOM ENGINEERING WORKFORCE IMPACT ON THEIR JOB PERFORMANCE? .....	119
4.6.5. COMBINED EFFECTS OF SELF-LEADERSHIP AND LOCUS OF CONTROL ON JOB PERFORMANCE. ....	125
<b>4.7. SUMMARY OF THE CHAPTER.....</b>	<b>128</b>
<b>CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS .....</b>	<b>129</b>





<b>5.1. INTRODUCTION .....</b>	<b>129</b>
<b>5.2. CONCLUSION BASED ON THE LITERATURE .....</b>	<b>129</b>
<b>5.3. CONCLUSIONS BASED ON RESEARCH QUESTIONS .....</b>	<b>130</b>
<b>5.4. RECOMMENDATIONS .....</b>	<b>133</b>
5.4.1. IMPLICATIONS FOR POLICY AND PRACTICE .....	133
5.4.2. IMPLICATIONS FOR ELECTRICITY GENERATION AND DISTRIBUTION.....	136
5.4.2.1. Electricity Development Infrastructure .....	136
5.4.2.2. Financial constraints.....	137
5.4.2.3. Human resource development issues.....	138
<b>5.5. IMPLICATIONS FOR FUTURE RESEARCH.....</b>	<b>138</b>
<b>5.6. CONCLUDING REMARKS .....</b>	<b>139</b>
<b>REFERENCE.....</b>	<b>140</b>
<b>ANNEXURE A .....</b>	<b>181</b>
<b>ANNEXURE B .....</b>	<b>183</b>
<b>ANNEXURE C .....</b>	<b>185</b>



## LIST OF TABLES

Table 2.1: The differences among the individuals with external and internal locus of control ....	38
Table 2.2: Studies conducted on locus of control .....	42
Table 3.1: Reliability test for self-leadership .....	66
Table 3.2: Mean percentages of self-leadership .....	67
Table 3.3: Reliability test (Locus of control) .....	69
Table 3.4: Descriptive statistics .....	69
Table 4.1: Reliability test (Locus of Control) .....	80
Table 4.2: Descriptive Statistics.....	81
Table 4.3: Reliability test for self-leadership .....	82
Table 4.4: Mean percentages of self-leadership .....	82
Table 4.5: Normality Tests .....	84
Table 4.6: Mann-Whitney U Tests .....	86
Table 4.7: Kruskal-Wallis Tests .....	87
Table 4.8: Mann-Whitney U Tests for Self-Leadership .....	89
Table 4.9: Kruskal-Wallis Tests.....	90
Table 4.10: Internal Locus of Control.....	95
Table 4.11: External locus of control.....	99
Table 4.12: Self-goal setting .....	101
Table 4.13: Self-reward.....	103
Table 4.14: Self-observation .....	105
Table 4.15: Self-cueing .....	106
Table 4.16: Self-punishment.....	107
Table 4.17: Focusing on natural rewards.....	109
Table 4.18: Self-talk.....	110
Table 4.19: Evaluating beliefs and assumptions.....	112
Table 4.20: Influence of locus of control on job performance.....	112
Table 4.21: Correlation coefficients between performance and locus of control .....	116
Table 4.22: Visualising successful performance .....	119
Table 4.23: Correlation coefficients of self-leadership and job performance.....	121
Table 4.24: Regression results (locus of control only) .....	125
Table 4.25: Regression results (self-leadership components) .....	126
Table 4.26: Regression results (both locus of control and self-leadership).....	127



## LIST OF FIGURES

Figure 1.1: The relationship between self-leadership, locus of control and job performance .....	11
Figure 4.1: Gender of respondents .....	73
Figure 4.2: Age of respondents.....	74
Figure 4.3: Ethnicity of respondents .....	75
Figure 4.4: Marital status .....	76
Figure 4.5: Educational level of respondents .....	77
Figure 4.6: Engineering hierarchy of respondents .....	78
Figure 4.7: Year of experience on the job .....	79



## LIST OF ABBRAVIATIONS

RSLQ	Revised Self-Leadership Questionnaire
CEO	Chief Executive Officer
JSE	Johannesburg Stock Exchange
EL	Emotional Labor
PBC	Perceived Behavioral Control
SLQ	Self-Leadership Questionnaire
SL	Self-Leadership
LC	Locus of Control
JP	Job Performance
STEM	Science, Technology, Engineering and Mathematics
USA	United States of America
KS	Kolmogorov Smirnov
CIG	Consolidated Infrastructure Group
WAPP	West African Power Pool
RECP	Renewable Energy Cooperation Programme
PV	Photovoltaic
CFL	Compact Fluorescent
DG	Distributed Generation
GEM	Global Entrepreneurship Monitor

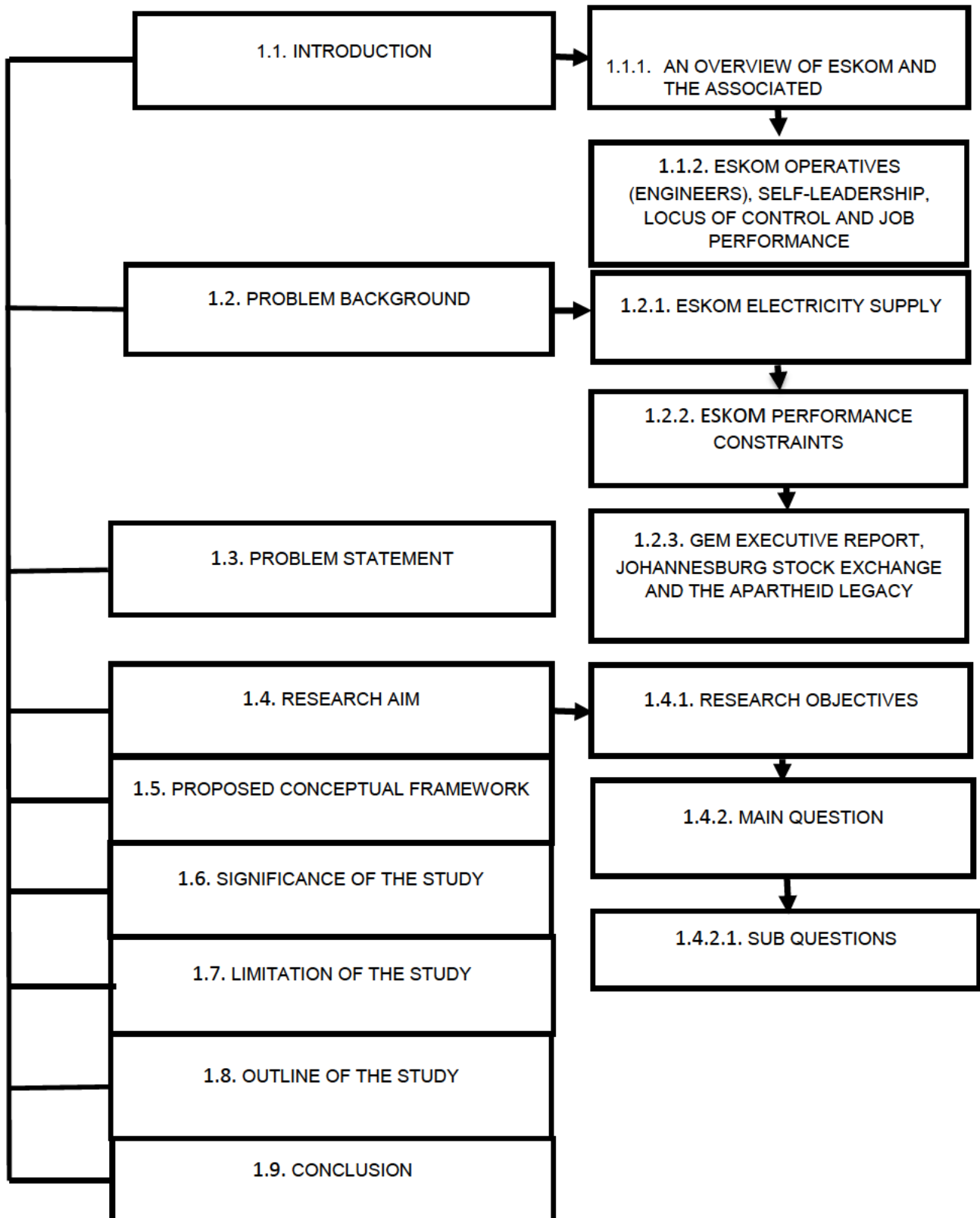


## ABSTRACT

Researchers have investigated self-leadership-performance and locus-performance relationships independently and this has resulted in the eclipsing of researchers' knowledge on the combined effects of self-leadership and locus of control on performance. This study, therefore, focused on the challenges at Eskom Holdings SOC Limited (hereinafter referred to as "Eskom") with regard to projections about electricity demand, cost overruns owing to delays in the completion of infrastructural/ electrification projects and poor electricity distribution across residential areas which have contributed to electricity theft, in relation to the combined influence of self-leadership and locus of control on job performance. It sought to develop deeper theoretical knowledge on the combined effects of self-leadership and locus of control on job performance of Eskom engineers in Bloemfontein, Free State, South Africa, well aware of the above noted challenges and the complexities of continued blackouts experienced nationally, as especially noted in 2015.

One hundred and thirty four (134) questionnaires were administered to the Eskom Bloemfontein engineering workforce (i.e. engineers, technologists and technicians) and one hundred and seven (107) were correctly completed and returned, representing a response rate of 79.8%. Self-leadership was measured using an abbreviated version of a Revised Self-Leadership Questionnaire (RSLQ) while Locus of Control was measured using a questionnaire developed from literature that examined its constitutive components. The results of this study suggest a positive correlation between: locus of control and job performance; and between the behaviour focused self-leadership, constructive thought and job performance of the Eskom engineering workforce. The results also demonstrate a positive relationship between the combined influence of self-leadership and locus of control on job performance of the Eskom engineering workforce. Implications for the initiation and fostering of self-leadership, locus of control and improved job performance of Eskom Bloemfontein engineering workforce are discussed in Chapter 5.

## CHAPTER ONE: INTRODUCTION TO THE STUDY



## 1.1. INTRODUCTION

This chapter outlines introductory remarks on the relationship between self-leadership, locus of control and job performance of the engineering workforce (i.e. engineers, technologists and technicians) of the power distribution utility, Eskom in Bloemfontein. Self-leadership is the process of self-motivating and self-determining one's conduct through specific behavioural and cognitive methods (Stewart, 2011). Stewart et al. (2011) further considers self-leadership to be one's intrinsic motivation to influence self - regarding what, why and how to perform work. Locus of control is a psychological concept that refers to how strongly people believe they have control over the situations and experiences that affect their lives (The Glossary of Education Reform, 2013). The chapter consists of sections that focus on an overview of Eskom Holdings SOC Limited (hereinafter referred to as "Eskom"), the challenges that Eskom is confronted with, Eskom operatives' (i.e. engineering work force) self-leadership-locus of control and job performance, definition of key concepts, problem background, the problem statement, research aim, research objectives followed by research questions, proposed conceptual framework, significant of the study, study limitations, outline of the study and concluding remarks.

### 1.1.1. AN OVERVIEW OF ESKOM AND ITS ASSOCIATED CHALLENGES

Eskom is the largest public power utility responsible for the generation, transmission and distribution of electricity in South Africa. It is mandated to generate, transmit, and distribute electricity to industrial, mining, commercial, agricultural, redistributors, and residential customers (Eskom Holdings SOC Limited SWOT Analysis, 2015). Eskom's national strategic and developmental significance lies in its capacity to use public electricity infrastructure to service its diverse clientele that includes energy intensive mining companies, manufacturing services and retail users. Among its core mandates, Eskom has steered positive economic growth, economic and social transformation, strived to reduce carbon emissions (for which it is one chief contributor) and improvised efficiency (Tsotsi, 2011) of the electricity generation and distribution programmes and projects.

Although Eskom has a huge national strategic role, it is currently engulfed in an intricate web of challenges. These challenges include a continuous exodus of its top management which often results in a lack of consistent policy direction, problems with capacity building and utilisation,

demands for electricity that outstrip supply and thus leading to the under-production of mining companies, economic stagnation (at 2% in 2015 rather than the projected 5%) and a rollout of blackouts which lead to the malfunctioning of traffic lights, traffic congestions, increased accidents and a decrease in the different sectors of the economy. As Yelland (2014) observes, the recent departure of Eskom leaders, in this case two top management executives within three years and most recently a top management director, reflects some frustration arising from the lack of a clear policy direction, common understanding and common purpose between the ruling party, government (cabinet, Department of Energy and Department of Public Enterprises) and Eskom. These departures are also indicative of an absence of an effective and broader electricity supply leadership that possesses a clear, consistent and inspiring vision. The endemic culture of appointment of CEOs in an acting capacity at Eskom and various state-owned enterprises in South Africa does reflect a poor succession planning of public boards, serious leadership challenges (Redelinghuys, 2014) and borders on a weak locus of control among Eskom employees. As such, the combined influence of self-leadership of leaders and the locus of control of employees at Eskom on job performance needs examination to ensure effective delivery of electricity services in South Africa.

There is some evidence of unclear leadership and a weak locus of control at Eskom. This is evidenced by the occurrence of perpetual power wrangles at board level, lack of clear and consistent succession planning displayed in multiple care-taker administration once incumbent boards are dissolved, failure to address forecasted power outages and incapacity to exploit existing resource capacity in electricity generation, transmission and distribution. For the purpose of this study, self-leadership is defined as the process of self-motivating and self-determining one's conduct through specific behavioural and cognitive methods (Stewart, Courtright & Manz, 2011:185). Since self-leadership encapsulates one's intrinsic motivation to influence self in relation to what, why and how to perform a particular task (Stewart *et al.*, 2011:189), the successful delivery of electricity generation, transmission and distribution plans, programmes and activities is inseparable from the possession of self-leadership in Eskom. Yet, the possession of self-leadership is neither a universal determinant of job performance nor does it operate in a vacuum. Instead, self-leadership is consummated by locus of control - one's ability to conceive himself/herself as well capacitated to influence the outcomes of his/her decisions and being fully equipped to achieve his/her pre-conceived goals. Locus of control is a psychological concept that refers to how strongly people believe they have control over situations and experiences that affect



their lives. Hence, as literature suggests, self-leadership is impossible without an internal locus of control (Adams *et al.*, 2008:109; McDevitt, Giapponi & Tromley, 2007:219).

### 1.1.2. ESKOM OPERATIVES (ENGINEERS), SELF-LEADERSHIP, LOCUS OF CONTROL AND JOB PERFORMANCE

Since Eskom operatives such as engineers, technologists and technicians are directly involved in the conceptual (e.g. leadership strategy development and key decision making about infrastructure investment), technical (e.g. design engineering, drawing up of engineering drawing and designing technical specifications) and operational management (e.g. determining plant life cycles and maintenance issues) of power generation plants, main sub stations and smaller sub stations and power lines, it is fundamental to investigate the combined influence of self-leadership and locus of control on the job performance of the engineering workforce at Eskom regional stations such as Bloemfontein. Our preoccupation with self-leadership derives from the convergence of literature on the role of self-leadership in improving organisational performance (Dewettinck & van Ameijde, 2011: 284; Kalyar, 2011:20; Neck & Houghton, 2006:270; Schermuly & Meyer, 2011:252; Sharma & Kaur, 2011:105). The study also considers Thomas *et al.* (2006:107) report that there is a strong connection between employees' regulation/control of their actions (i.e. locus of control) and the consequences of those actions in the work environment (e.g. successful job performance).

More so, employees who possess locus of control are more likely to believe that performing well at work will lead to positive work outcomes such as increased pay or promotion (Muhonen & Torkelson, 2004:21). Although relationship between each concept (self-leadership and locus of control) and job performance is non-trivial, what remains unknown in extant literature is the combined influence of these concepts on employee job performance, especially by those in public utilities such as Eskom. Since self-leadership and locus of control are believed to stimulate innovative behaviours (Prattom & Savatsomboon, 2012:1063), there is scope to investigate the combined effects of locus of control and self-leadership on the performance of employees in this public organisation. In addition, lack of understanding of the relationship between locus of control and self-leadership, results in leaders being more limited in their ability to improve their job performance (Keller, 2012:225). The above consideration are therefore, critical, given the strategic role that Eskom in the South African economy, the public mandate of this organisation

to deliver effective electricity services and the need to ensure public financial accountability owing to its continual bailouts using public funds.

## 1.2. PROBLEM BACKGROUND

Eskom epitomises a giant public entity reeling under economic challenges and burdened by constraints of electricity supply leadership. For instance, in January 2008, this entity mandated with reliable and efficient generation and distribution of electricity in South Africa, faced huge technical and supply challenges that the country suffered huge blackouts and load shedding as Eskom tried to contain the crisis. The blackouts were a result of: Eskom's inability to diversify energy sources which led to its dependence on coal-powered plants; Eskom's dependence on small, cheaper, but unreliable suppliers of coal to drive its coal-fired power plants; the public enterprise's failure to attract relevant critical skills; delays in the completion of the Medupi and Kusile coal-fired power stations; and increased demand for electricity due to economic growth (Van der Nest, 2015). The electricity supply crisis was also witnessed much earlier on as noted in the five day forced closure of gold and platinum mines operations which started on January 25, 2008 (CDE Round Table, 2008) in an attempt to prevent severe strain and instability of the power generation plants and electricity generation grid.

### 1.2.1. ESKOM ELECTRICITY SUPPLY

Electricity supply intermittently stabilised between mid-2008 and 2012, partly due to the Global Financial Crisis of 2008, which led to an economic downturn that triggered a decline in demand for electricity and the stabilisation of the electricity grid (Van der Nest, 2015). However, blackouts resurfaced in 2015. Eskom's rollout of blackouts, following the collapse of one of its coal storage silos, diesel shortages and low maintenance of its dated power generation plants (Business Tech, 2015) resulted in catastrophic effects on both the economy, industrial and retail sector and the general public. As of 25 March, 2015, the power cuts implemented by Eskom according to regulation stages were, Stage 1 cost the South African economy between \$1.7 billion (R20 billion) and \$6.8 billion (R80.1 billion) per month, Stage 2 cost the economy R40 billion per month, while Stage 3 is estimated to have cost South Africa R80 billion per month (Business Tech, 2015). Therefore, the energy crisis, a consequence of a seven year delay in completing the Medupi power station (the first new power station South Africa has built in two decades), epitomises

Eskom's leadership constraints, general resource mismanagement and its incapacity to upgrade or refurbish its unreliable fleet of aging power plants and transmission lines.

### 1.2.2. ESKOM'S PERFORMANCE CONSTRAINTS

Eskom's under-performance of has been interpreted as a consequence of multiple factors. These factors include, serious and persistent failures of electricity supply leadership by the board of Eskom, leadership failures in government, lack of capacity by Eskom and government with regard to negotiating a successful private sector partnership for new generation capacity, and Eskom management's poor response to the difficult situation (Business Tech, 2015; CDE Round Table, 2008). Constraints within leadership manifested in the Eskom Board's failure to provide skilled and independent leadership to Eskom's management dealing with coal procurement issues and the energy mix, and in the decade-long failure to communicate effectively with government and the public about the urgent need to build more power stations (CDE Round Table, 2008). This conundrum was compounded further by the leadership crisis at Eskom as recently noted in the suspension of Eskom's CEO, three other senior executives and the Financial Director, to allow for the Eskom Board Chairman's inquiry into the operations of the utility without their interference (Business Tech, 2015). The lack of capacity at Eskom and in the government resulted in their failure to contract international and local contractors to build a single plant in seven years (2001-2007) (CDE Round Table, 2008) long after the electricity crisis in South has been predicted by the African National Congress (ANC) cabinet in 1998.

### 1.2.3. GLOBAL ENTREPRENEURSHIP MONITOR (GEM) EXECUTIVE REPORT, JOHANNESBURG STOCK EXCHANGE AND THE APARTHEID LEGACY IMPLICATIONS FOR ESKOM

The GEM Executive Report for South Africa (2006) documents a poor leadership culture and weak locus of control that is prevalent in the South African business environment (see Maas & Herrington, 2006:16). The paucity of a strong leadership and locus of control can be attributed to the apartheid legacy, which discriminated and marginalised some racial groups from gaining experience in managing large businesses due to its discriminatory laws on business training and access to both financial credit from banks and elite education. Apartheid denied Blacks, Coloured and Indians the opportunities to operate large businesses (except for small retail businesses such

as spaza shops and taxis) and access to business management leadership opportunities, the same way the post-apartheid democratic government has failed to sufficiently facilitate the effective incorporation of the former marginalised groups into senior leadership and management positions. Assuming that these marginalised groups relied on external locus of control and lacked self-leadership due the protracted years of social deprivation, their expression of self-leadership and locus of control could have been undermined and compromised by such historical prejudices (Babo, 2005; Pabst, 2008).

Even though the aforementioned Eskom performance constraints and apartheid legacy challenges may be organisational and structural challenges respectively, they may exert a direct effect on the performance of Eskom employees from previously disadvantaged groups. While the apartheid legacy may have affected these individuals' capacity to express self-leadership through the aforementioned blocked opportunities, the under-performance of Eskom may also undermine those employees who exhibit external locus of control. This is because employees with external locus of control often have their individual behaviours shaped by their external or organisational environment. The failure to develop a new managerial elite from the previously marginalised citizenry may have blocked opportunities for the expression of self-leadership (Elloy, 2008:809) in South Africa's public enterprises and other economic sectors. This lack of self-leadership can also be positively identified with the continued underrepresentation of Blacks, Coloured and Indians in top corporations listed on the Johannesburg Stock Exchange (JSE) (see Black Management Forum Transformation Barometer Research Report, 2015:22). A study conducted by the JSE on the racial representation of top leadership in the top 100 listed companies found out that black investors held 9% of the investment in these top companies (Mashego and Dookey, 2015:1). Thus, ineffective and inferior Bantu education, the restriction of the black population to the working class, and a virtual lack of management training fostered a culture of servanthood among these historically marginalised groups, which undermined their creative imagination and opportunities and more importantly, as noted by Morris *et al.* (1996:812) the situation "created an ethnic enclave character that restricted opportunities for successful business management leadership".

### 1.3. PROBLEM STATEMENT

Eskom is engulfed in a power generation crisis and Stage 3 of the load shedding cost the South African economy R80 billion per month (Business Tech, 2015:1). A consideration of the fact that the approximate GDP of South Africa in 2014 was R4 trillion, it becomes clear that approximately 1-2% of GDP could potentially have been wiped out per month due to load shedding in 2015 (Van der Nest, 2015:3). The cumulative effects of blackouts and load shedding have gone hand in hand with the declining exports of precious metals to finance South Africa's current account deficit as energy intensive mining operations have been badly hit, the depreciation of the South African currency, the Rand, the stalling of economic growth and downward revisions in economic growth forecasts.

The power generation crisis is largely a consequence of Eskom's middle and upper management's lack of electricity supply leadership, management constraints and its incapacity to resist the South African government's interference in its internal management affairs – a failure to wither external locus of control. For instance, even though Eskom had correctly projected that South Africa would experience blackouts by the end of 2007, with the government's 1998 Energy Policy White Paper having made a similar prediction (CDE Round Table 2008:4), the Eskom board and management failed to convince the South African government to expeditiously contract private contractors who would build additional power generation stations and diversify energy sources for about 10 years (1998 to 2007) before the first black outs hit the country. There is, therefore, lack of electricity supply leadership and a weak external locus of control of both Eskom senior management and employees that continue to yield some miscalculations and oversights, as noted in the failure to replace existing ageing, overused power generation plants, and the reliance on small, cheap but unreliable and under-resourced coal contractors, as well as a sheer reluctance to open up the national power generation to private and independent power producers.

Despite the aforementioned paradoxical demonstration of the inseparable connection of self-leadership and locus of control, the discourse of self-leadership and locus of control and their impact on job performance are often explored as independent subjects instead of acknowledging the symbiotic relationship between these concepts (self-leadership, locus of control) as they relate to job performance. For instance, a demonstration of self-leadership by management is considered to modify employee perception of organisational culture aspects such as social irresponsibility and minimise the associated negative effects that lead to undesirable behaviours

among employees (Pearce & Manz, 2011:563). By the same token, since an internal locus of control is regarded as leading to the generation of a positive relationship with performance (Thomas *et al.*, 2006:107), fostering internal locus of control among employees of an organisation can optimise the organisation's performance. Although internal locus of control may impact positively on the performance of an organisation, such impact cannot be assumed to be universal as other critical variables, such as self-leadership, are also implicated in job performance. However, the combined effects of locus of control and self-leadership on job performance remain unknown in developing economies.

Understanding the combined effects of self-leadership and locus of control on performance is critical, particularly in emerging economies where there is a heightened call to improve efficiency in the use of human resources, and to provide an environment in which employees feel comfortable to achieve the organisation's objectives through their knowledge, experiences, abilities and capabilities (Asgari & Vakili, 2012:255). Although no systematic study has examined the combined effects of self-leadership and locus of control on job performance in the electricity generation industry in South Africa, the promotion of high levels of self-leadership and internal locus of control can contribute to the overcoming of organisational cultures that impede innovation (Prattom & Savatsomboon, 2012:1063) and lead to the employees' optimisation of their job performance. Therefore, lack of understanding of the relationship between locus of control and self-leadership, leads to the leaders and employees failure to improve job performance (Keller, 2012:225). The problem, therefore, is our limited knowledge of the combined effects of self-leadership and locus of control on job performance.

#### **1.4. RESEARCH AIM**

The study's main aim was to develop a deeper theoretical knowledge on the combined effects of self-leadership and locus of control on job performance of Eskom engineers in Bloemfontein. The following specific objectives were also formulated to realise the aim of this study:

### 1.4.1. RESEARCH OBJECTIVES

The following objectives were also formulated:

1. To explore the components of internal and external locus of control of the Eskom engineering workforce (engineers, technologists and technicians) in Bloemfontein.
2. To measure the constitutive dimensions of self-leadership of Eskom engineering workforce in Bloemfontein.
3. To explore the influence of locus of control of the Eskom engineering work force on their job performance in their work environment.
4. To examine the impact of self-leadership of the Eskom engineering work force on their job performance in their work environment.
5. To examine the combined effects of self-leadership and locus of control of the Eskom engineering workforce on job performance of their working environment.

### 1.4.2. MAIN QUESTION

What is the integrated impact of self-leadership and locus of control on the performance of Eskom?

#### 1.4.2.1. Sub questions

The main research question was:

1. What are the main components of internal and external locus of control of the Eskom engineering workforce in Bloemfontein?
2. What are the constitutive dimensions of self-leadership of the Eskom engineering workforce in Bloemfontein?
3. What is the influence of locus of control on the job performance of the Eskom engineering workforce in their work environment?
4. In what way does self-leadership of the Eskom engineering work force impact on their job performance in their work environment?
5. What are the combined effects of self-leadership and locus of control on the job performance of Eskom engineering workforce?



## 1.5. PROPOSED CONCEPTUAL FRAMEWORK

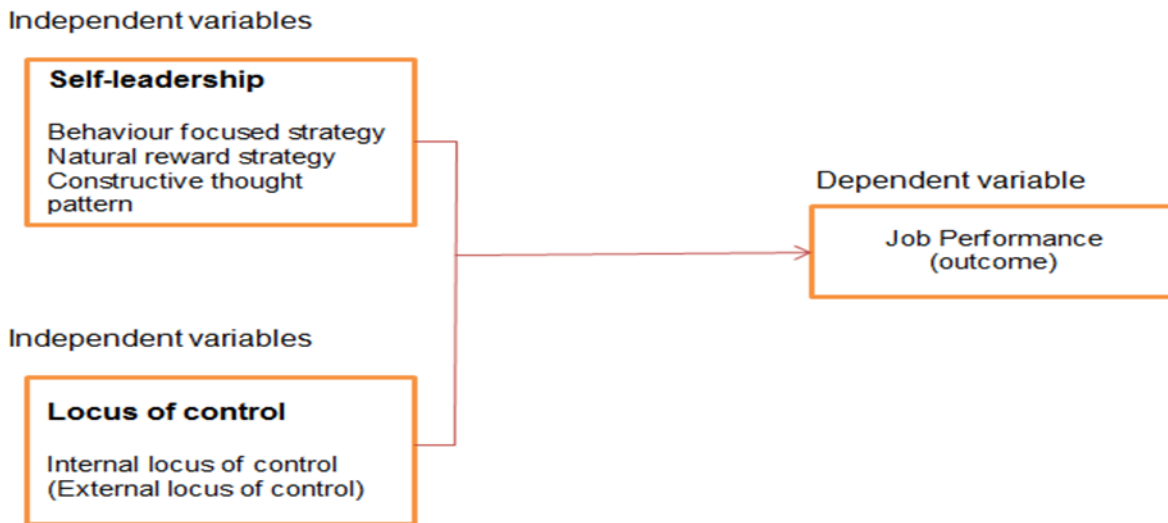


Figure 1.1: The relationship between self-leadership, locus of control and job performance

As Figure 1 suggests, the relationship between self-leadership, locus of control and performance is of a compound nature. It is never an either (self-leadership-job performance) or (locus of control-job performance) scenario, but rather an amalgam of both concepts (self-leadership and locus of control) as they relate to job performance (self-leadership-locus of control-job performance). While the two concepts may have equal strength with regard to their influence on job performance, their individual constitutive components may not necessarily have equal weight. For instance, behavior focused strategies and constructive thought patterns seem to have more dominance on job performance than natural reward strategies, in the same way internal locus of control seem to be more powerful for improved job performance than external locus of control. This researcher argues that while rewards may be foundational to energising an individual to initiate task execution at the basic level to justify receipt of remuneration, rewards may not necessarily sustain optimal success motivation behavior, instead, behavior focused strategies and constructive thoughts patterns do. Collectively conceived, behavior focused strategies and constructive thoughts and internal locus of control seem to shape job performance more than reward strategies and external locus of control, which can be removed with little effect on the job outcomes. Thus, these sub-concepts' level and subject operation within the organisation also shape their impact. Our assumption is that internal locus of control could have more dominance on job performance at the operational levels (engineers) while both internal and external locus of



control becomes more dominant at middle (i.e. middle managers) and senior management (i.e. Eskom Board and top management) levels given their higher interaction with the external environment than the lower levels.

## **1.6. SIGNIFICANCE OF THE STUDY**

The study contributes to the generation of knowledge about self-leadership, locus of control and job performance of engineers in a power distribution utility, Eskom. The study forms a basis for similar studies in other public sectors and a provision for the development of self-leadership and locus of control that are based on empirical knowledge of aspects that affect job performance. Insights regarding self-leadership, locus of control and job performance, gained from the research, will assist the management of Eskom in the formulation of policies that ensure the creation of a strong self-leadership and strong locus of control that have a positive impact on Eskom engineers' job performance.

Although this study makes several important contributions to theory and practice, two issues stand out and need mentioning. Firstly, this study being the first of its kinds on the relationship between self-leadership, locus of control and job performance of engineers in a power distribution utility in South Africa, breaks new grounds in terms of the phenomenon on self-leadership, locus of control and job performance practice of a power distribution utility (Eskom). Secondly, this study is significant because it encourages power distribution utilities to emphasise the importance of being a self-leader with internal locus of control as an engineer, since one of the findings links self-leadership and locus of control to job performance

## **1.7. LIMITATIONS OF THE STUDY**

Since the study adopts a survey approach, this may mean that the results might have limited applicability to other similar electricity utilities across the country. The sample size and uniqueness of conditions that obtain at Eskom in the Free State may not resonate with those at other power distribution stations. Thus, expanding the focus of investigation to cover other power generators across the country may improve the generalisability of results.

Since exploratory studies, such as the current one are based on perceptions of respondents from the Eskom workforce at a particular time when this research was conducted, there is no guarantee

of replicability of this study in the future due to an evolution of staff views on issues as conditions at Eskom change over time and there will be staff turnover and maturity of workers over time. That said, this study can be conceived as an accurate presentation of the perceptions of Eskom Bloemfontein engineering workforce at the time this study was conducted.

This study focused on only one public power generation and distribution utility. It is important to take into consideration that this power utility, in its own way, is unique from other power utilities in terms of its structure, communication systems, and management style. Besides, the study focuses only on engineers. Thus, a larger sample of employees, including senior management, would allow a broader representation of the views on the matters investigated in this study, which will increase the statistical confidence and generalisability of results.

Eskom engineers are always busy and as a result, it was difficult to secure a 100% response rate. As such, the views in this report are only from the questionnaires that were fully completed and exclude spoilt and incomplete ones. Although, the engineering workforce were given sufficient time (about 4 weeks to complete the questionnaire), some questionnaires were returned uncompleted.

## **1.8. OUTLINE OF THE STUDY**

This study, which is presented in five chapters, is focused on establishing if there is a relationship between self-leadership, locus of control and job performance of engineers at Eskom.

### **Chapter 1 –Background of the study**

This chapter presents an overview of the study, problem statement, the research objectives, and contribution of the study as well as its limitations.

### **Chapter 2 –Self-leadership, locus of control and job performance**

This chapter examines literature about self-leadership and locus of control. The literature review focuses mainly on self-leadership and locus of control. This chapter also reviews other studies that have been conducted on self-leadership and locus of control.

### **Chapter 3 – Research methodology**

This chapter outlines how the research was conducted. It provides insight on the sampling method used, data collection techniques and various other techniques that were used to analyse the data.

### **Chapter 4 – Analysis, Interpretation and discussion of results**

All the results gathered from the research questionnaires are presented in this chapter with the aid of tables and figures.

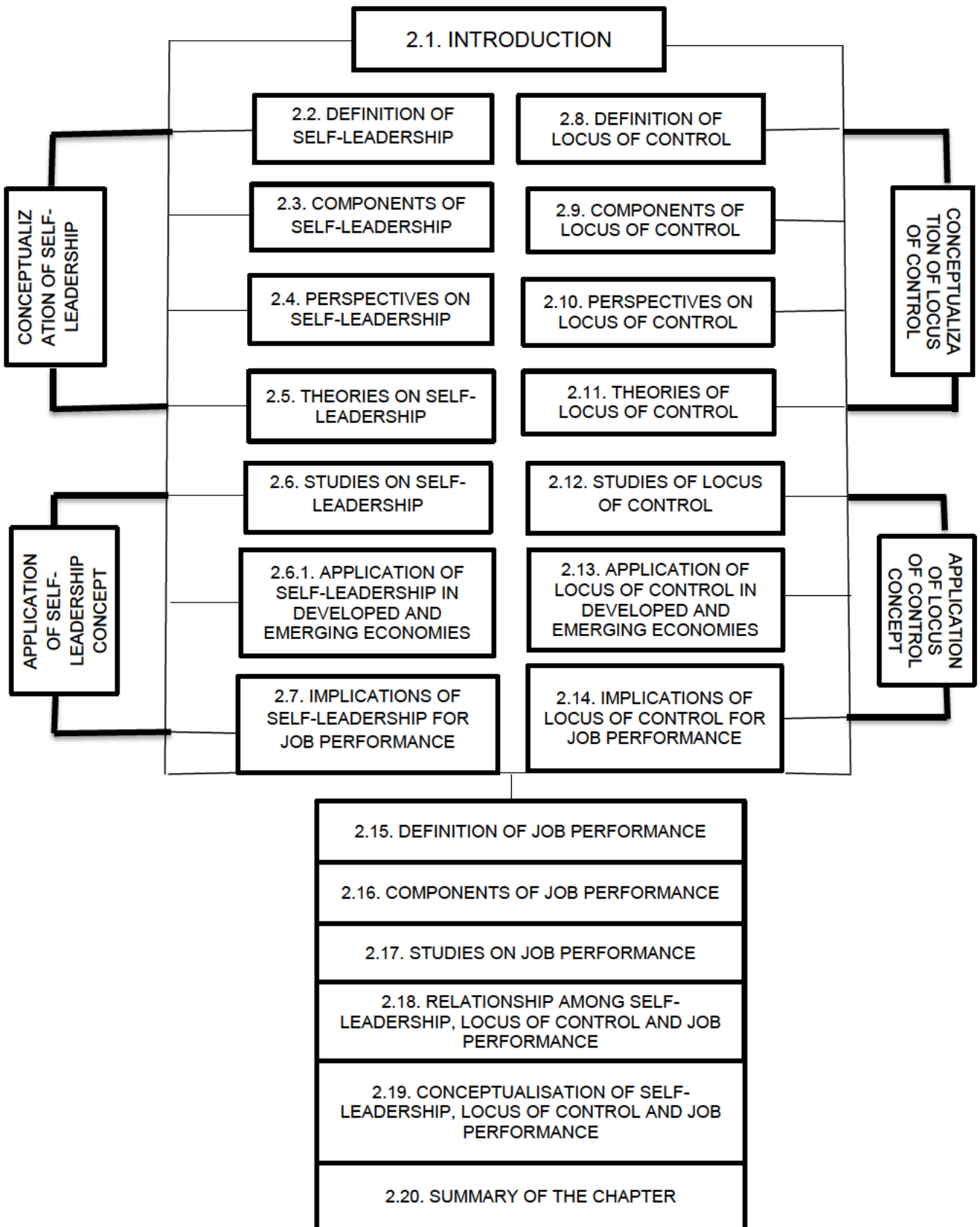
### **Chapter 5 – Conclusions and Recommendations**

This chapter contains conclusions and recommendations.

#### **1.9. CONCLUDING REMARKS**

This chapter presents an overview of the study and outlines the problem statement, the research objectives, and contribution of the study as well as its limitations. The following chapter reviews literature on self-leadership, locus of control and job performance.

## CHAPTER TWO: SELF-LEADERSHIP, LOCUS OF CONTROL AND JOB PERFORMANCE



## 2.1. INTRODUCTION

The previous chapter outlined this study's problem statement, problem background, concepts to be explored, the research questions, and the significance of this study as well as an overview of the chapters of this investigation. This chapter, however, explores in greater detail the concepts of self-leadership and locus of control, their sub-concepts, and their relationships with job performance in order to locate this study in its proper perspective. The fact that the vision and mission of organisations are driven by leaders, demands that such individuals to demonstrate a sense of maturity and strength of leadership. However, while expressing and exerting self-leadership presupposes the possession and demonstration of internal locus of control at both individual and group levels, it is important to explore both concepts (self-leadership and locus of control) as they relate to individuals' performance on the job. Hence, this chapter explores the intersection between both concepts and job performance by examining their independent and collective influences on job performance.

## 2.2. SELF-LEADERSHIP

Self-leadership has been explored by different authors who came up with different characterisations of the term, and different studies on the concept across different contexts have generated different results (Elloy, 2008). The concept, which first emerged in the mid-1980s (Manz, 1983, 1986) as an expansion of self-management (Manz & Sims, 1980), was rooted in the clinical self-control theory (Cautela, 1969). Self-leadership is inspired by Kerr and Jermier's (1978) notion of "substitutes for leadership," which describes situational factors that may 'neutralise' leadership, or prevent a leader from taking action in particular situations. Stewart *et al.* (2011:185) define self-leadership as the process of self-motivating and self-determining one's actions through specific behavioral and cognitive methods. In order to make a distinction between self-leadership and self-management, Ho and Nesbit (2009:450) and Panja, *et al* (2012) suggest that self-leadership goes beyond self-managing behaviors and includes one's motivation to evaluate, set, and modify his/her objectives through the self-discipline of setting strategies and standards that need to be met.

The definition of self-leadership is consistent among different researchers. Self-leadership is generally defined as the self-influence behavior that leads an individual to performance when working on tasks that are either naturally rewarding or not (Stewart *et al.*, 2011:185). Similarly,

Furtner *et al.* (2011:369) define self-leadership as the theoretical construct that explains the underlying mechanisms of self-influence. Having operationally defined the term self-leadership, it an examination of the anatomy of this concept, by reflecting on its constitutive components, becomes appropriate.

### 2.3. COMPONENTS OF SELF-LEADERSHIP

The components of self-leadership can be conceived from the perspective of the mechanisms employed to affect it. These include the behavioral orientation, rewards to be attained, and constructive thoughts invested in attaining self-leadership. Literature on self-leadership components (Jeffery *et al.*, 2004; Ebben, 2012) tends to emphasise the natural reward mechanisms, idea-informed strategies as they are expressed in daily life and perceptions of self-efficacy that trigger high levels of performance. Consequently, it can be argued that self-leadership reveals that which has to be made to understand the reasons of an individual's own behaviors, and that which has to be made in the cognitive strategies in order to increase the efficiency of these behaviors (Neck & Houghton, 2006:270). Thus, there is a general consensus among researchers that three different strategies of self-leadership, which are *behavior-oriented strategies*, *natural reward strategies* and *constructive thought pattern strategies*, cause behavioral changes in the individual's life (Anderson & Prussia, 1997:119; Houghton & Neck, 2002:672; Neck & Houghton, 2006:270). These three strategies are elaborated in sub-sections below.

#### 2.3.1. BEHAVIOR ORIENTED STRATEGIES

Individuals make observations about themselves in daily life in order to control their behaviors, increase their self-awareness and justify their behaviors by accessing information about their selfhood perceptions (Houghton & Neck, 2002:672). They engage in self-affecting behaviors and draw on the foresaid access to information to develop specific behavioral strategies (Neck & Houghton, 2006:270). These behavior-oriented strategies are constituted especially by the processes of self-evaluation, self-rewarding and self-disciplining (Anderson & Prussia, 1997:119).

Researchers classify behavior-oriented strategies into self-goal setting, self-reward, self-punishment/ self-reinforcement, self-observation and self-cueing strategies. These classifications are elaborated below.

#### 2.3.1.1. Self-goal setting

Common sense dictates that an individual's failure to be goal-oriented undermines his/her ability to lead a successful life in the present and future. As such, an individual's sense of self-direction that is derived from determining and striving to attain personal goals to optimise successful performance is defined as self-goal setting (Houghton & Neck, 2002:672). Self-leadership behaviours gain more prominence if these personal goals are matched with organisational goals.

#### 2.3.1.2. Self-reward strategy

Self-reward strategy is when an individual/ an employee chooses to reward himself/herself with something he/she likes after executing a task/work successfully (Manz, 1992; Mahembe *et al.*, 2013). An engineer may spoil herself by going for a spa massage upon completing a task/work successfully.

#### 2.3.1.3. Self-observation

Self-observation, which is the lifeblood of self-leadership, emphasises the observation of own behaviours to obtain information about them. It is the process of self-controlling the individual to increase one's self-awareness concerning questions about: which situations, how often, when, how and why (i.e. internal and external effects) to take which type of action (Alves *et al.*, 2006:338). Self-observation supports self-goal setting, which involves identifying targets for one's efforts, among other strategies.

#### 2.3.1.4. Self-cueing

Self-cueing involves the rehearsal, practice or external signalling of certain things that need to be remembered or made with the use of physical objects to avoid costly miscues (Manz, 1992; Houghton & Neck, 2002: 673; Alves *et al.*, 2006: 341; Neck & Houghton, 2006:270). By applying this strategy, individuals can easily optimise performance and time management using a simple to-do note list.

### 2.3.1.5. Self-punishment/ self-reinforcement

Self-punishment involves the provision of self-correcting feedback while self-reinforcement underlines self-criticism. Although both terms involve self-applied consequences (that is, positive for self-reinforcement and negative for self-punishment) of individual behaviours, they are essentially opposite sides of the same coin (Manz, 2015:135). On a positive perspective, they describe the shaping of one's behaviours to realise desired outcomes (Hardy, 2007:55) when they cannot achieve the specified goals. Although self-punishment can decrease a person's motivation and creativity, many people tend to employ this strategy frequently in their daily lives (Houghton & Neck, 2002:672). To this end, a consistent application of self-reinforcement means that the adoption of a self-punishment strategy can be avoided (D'Intino *et al*, 2007:105). In general, self-reinforcement produces positive effects on performance, while self-punishment may bring negative results for trainees, college students, and employees (Prussia, Anderson, & Manz, 1998:523; Neck & Houghton, 2006:270; Stewart *et al.*, 2011:185).

There are several potential reasons for supporting the efficacy of behavior-focused strategies. For example, self-observation can increase self-awareness, which forms the basis for positive choices that individuals make and how they apply them to their behaviors. Thus, effective self-leaders are likely to place greater value on self-observation and to exert more effort in pursuit of such a behavior than their counterparts. Specific self-observation strategies could include taking notes about critical events throughout the day, soliciting feedback from others (such as co-workers, followers, and leaders), and journaling (Neck & Manz, 2013). Behavior-focused strategies may be used to foster improved physical health, better stamina and overall sense of well-being. Finally, the application of behavior-focused strategies can include goal-supported and self-reinforced physical exercise and relaxation techniques, such as meditation and deep breathing (Neck & Cooper, 2000:72; Houghton, Wu, Godwin, Neck, & Manz, 2012).

### 2.3.2. NATURAL REWARD STRATEGIES

Another set of self-leadership strategies focuses on fostering positive affect. This positive thought strategy makes the individual to engage in effective behavior by focusing on desirable conduct and avoiding undesired ones (Anderson & Prussia, 1997:119). It involves building natural motivation into the task itself. This means that a typical individual tends to create a relationship with the work that motivates him/her to perform activities for their own value rather than for



something to be received, which is external to the tasks. Natural reward–focused strategies are premised on a foundation similar to that of the self-determination theory (Manz, 2015:135), where the emphasis is on natural or intrinsic rewards that are part of task performance (Manz, 1986:585; Neck & Houghton, 2006:270). Natural reward strategies address the importance of focusing on synthesizing rewarding activities into work without seeking rewards from external sources (Stewart et al, 2011:185). Jobs can be viewed as consisting of “emergent” tasks that can be intrinsically enriched and redefined by workers themselves (Ilgen & Hollenbeck, 1991:165). Even menial jobs can be imbued with work identities that are uplifting by using strategies that expand duties and add meaning to tasks (Wrzesniewski & Dutton, 2001:179; Neck & Houghton, 2006).

The strategies in this self-leadership category generally center on building in or focusing on naturally motivating aspects of work activities. More specifically, they are applied to create motivating feelings of self-control, competence, and purpose among workers (Neck & Houghton, 2006:270; Stewart *et al.*, 2011:185; Neck & Manz, 2013). In other words, self-leaders who rely on this approach strive to redesign their tasks and how they think about them in ways that contribute to their subordinates or co-workers feeling more self-controlled, competent, and/or purposeful. Although natural reward-focused strategies are founded on establishing feelings of purpose, they are likely to be more effective in improving job performance as work-related goals and naturally motivating tasks cohere with personal well-being and values. For example, a more positive image can be built on tasks that may be considered as not naturally rewarding such as nurses’ bathing of patients. This positive image can be fostered by an intentional focus on a valued aspect of the work that provides meaningful purpose, such as striving to increase the comfort of the patient (Manz, 2015:135).

### 2.3.3. CONSTRUCTIVE THOUGHT PATTERN STRATEGIES

Constructive thought pattern strategies mean focusing on the formation and alteration of the irrational beliefs and thinking patterns of individuals (Anderson & Prussia, 1997:119). In other words, these strategies are based on the premise that people can influence the focus of their thoughts, mental activity and how cognitions are processed. The adoption of thoughts of self-influence to help make one’s thinking more constructive is a critical part of overall effective self-leadership. Specific strategies for realising constructive thought patterns, such as intentional self-influence of self-talk, mental imagery, and beliefs and assumptions, have been studied as means

for perfecting patterns of thinking (Stewart *et al.*, 2011:185; Neck & Manz, 2013). According to Manz (1992), the most important component of self-leadership focuses on the handling of how the individual thinks. The core of self-leadership studies underpins managing the efficiency of employees' self-thinking patterns, models and templates rather than focusing on the undesired or unattractive parts of their work (Manz, 1986:585).

Therefore, constructive thought pattern strategies are classified by the researchers as the strategies for visualising successful performance, perfecting self-talk, and evaluating beliefs and assumptions. Each of these strategies is outlined below.

#### 2.3.3.1. Visualising successful performance

Visualising successful performance includes having imaginary experiences, making mental depictions, imaginary exercises, imaginary rehearsals and imagining the events as lived with the previous symbolic fictions (Houghton & Neck, 2002:672). The strategy of visualising successful performance consists of a series of rehearsals that are made in the mind of the individual as they contemplate the behaviours that need to be changed in a desirable way.

#### 2.3.3.2. Self-talk

The self-talk (or self-dialogue) occurs in the mind of individuals at a level that cannot be observed (Manz, 1992; Neck & Houghton, 2006:270). Although people who talk to themselves may not be embraced by different cultural groups, most people tend to talk to themselves when performing various tasks. So self-talk happens when individuals talk to themselves positively and depends on the beliefs and experiences they create in their psychological world (Godwin, Neck & Houghton, 1999:153). Such a practice may help them to achieve their goals (Elloy, 2008).

#### 2.3.3.3. Evaluating beliefs and assumptions

This involves the use of mental models for solving problems in individuals' daily lives (Godwin, Neck & Houghton, 1999:153). These models tend to be informed by beliefs and experiences of the individuals on the basis of their thoughts. The behaviours emerge from thought models as much as they may be shaped by environmental factors such as an individual's past experiences.

For this reason, an individual should consider many qualities such as their thinking habits, value judgments, beliefs, assumptions, and biases which inform their behaviour in positive ways. The individual should change the unfunctional behaviours and replace them with the ones that are more sensible (Neck, Nouri & Godwin, 2003:691; Aghababaei *et al.*, 2013: 195) in order to achieve high productive performance outcomes.

The aforementioned self-leadership strategies, with their respective narrowly defined sub facets, constitute the self-leadership domains (Houghton & Neck, 2002:672). The first reflects a behavioural, the second a motivational, and the third a cognitive domain. These three self-leadership strategy domains must work smoothly together to generate effective and productive patterns in an individual. Self-leadership, as originally conceptualised (e.g., Manz, 1986:585), refers solely to intra-individual self-regulatory processes rather than inter-individual processes (see Furtner *et al.*, 2010), although recent conceptualisations now incorporate interpersonal/social aspects (e.g., Ho & Nesbit, 2009:450; Furtner, Rauthmann, Seubert, & Baldegger, 2011a).

The next section addresses perspectives on self-leadership.

## **2.4. PERSPECTIVES ON SELF-LEADERSHIP**

Although much of the pioneer work on self-leadership is often associated with Manz's Self-Leadership theory and self-leadership thoughts, the theorisation is premised on the understanding that employees in organisations can influence or lead themselves by adopting specific cognitive strategies (Neck & Milliman, 1994:9). These set of self-leadership strategies (Behavior oriented strategies, Natural rewards, and constructive thought pattern strategies), which facilitate personnel success and effectiveness, focus on the behaviors and thoughts that people use to influence themselves (Manz & Sims, 2010). According to Pearce and Manz (2005:130), the self-leadership concept brings into prominence a search for answers to the "what", "why", and "how" questions in management circles and considers all employees as knowledge workers. As such, self-leadership constitutes the base of the participative (shared-in common) leadership, one of the leadership styles closely related to self-efficacy perceptions, high job demands and the creation of active work environments (Lovelace, Manz & Alves, 2007:374). To date, self-leadership has some resonance with the self-regulation theory, and carries a broader,

comprehensive meaning than self-affecting and self-managing concepts as it encompasses both concepts (Manz, 1986:585).

The subsequent sections of this literature review consider the perspectives on self-leadership as observed from mainstream management literature. First, self-leadership is approached from the perspective of fostering authenticity (Manz, 2015:138). Second, the concept is conceived as expanding the [productive] capacity of employees (Manz, 2015:141).

#### 2.4.1. SELF-LEADERSHIP AS AUTHENTICITY

Authenticity involves acting in ways that express one's true nature (Kernis, 2003:1) and are consistent with genuine beliefs and thoughts (Harter, 2002:382). Authenticity demands possession of a clear sense of self and an awareness of deep personal values. For example, being self-aware, transparent, and connected with core beliefs and convictions is associated with leaders who are authentic (Luthans & Avolio, 2003:241; Luthans, Norman, & Hughes, 2006:84). Therefore, being authentic (for instance, by being true to one's self) can reduce personal dissonance and promote several benefits such as positive responses from others, a better well-being, and a higher performance (Hannah, Walumbwa, & Fry, 2011:711).

One fundamental way to address the authenticity component of self-leadership is through setting and maintaining higher-levels of standards. Authentic self-leaders have a particular focus on superlative goals that shape the rationale (the "why") and substance (the "what") of self-influence, in ways that enhance both intra- and interpersonal effectiveness (e.g., it is better to have high performance and meet organisational objectives than to fall short).

#### 2.4.2. SELF-LEADERSHIP AS EXPANDING CAPACITY

Self-leadership methods and strategies can be conceived as embodiments of leaders' capacity to improve the delivery of organisational goals. Self-leadership can be conceived as expanding the capacity of self-leaders to pursue authentic choices and actions and to choose responsible ends and behaviors as part of the self-influence process. Although with self-management, the immediate application of self-influence (the strategies that make up the how of self-influence) is largely the purview of the individual, the higher-level governing standards—what the goal of the

activity is (e.g., be more fit or increase performance) and the why that underlies the what (e.g., to be healthier or help the firm grow and prosper)—are anchored somewhere else as in society, the boss and the organisation. This external orientation is consistent with widespread hierarchical-based views. As just one example of this external orientation, the vast majority of research and writing about leadership has an implicit assumption that leaders and followers are separate and that it is the responsibility of the leader to influence the follower (and within work contexts, to exert influence in a way that is consistent with some organisation goal) (Kluichnikov, 2011; Zhu *et al.*, 2011). In contrast to the concept of self-management, self-leadership is viewed as a broader and more encompassing self-influence perspective (with considerations beyond behavioral choices that move the individual toward externally established standards or goals) that includes aspects of self-management but with added emphasis on cognition, intrinsic rewards, and higher-level standards (Manz, 1986). Addressing higher-level standards that govern immediate self-management standards is thus a particularly key aspect of self-leadership (Manz, 2015).

Expanding capacity can manifest in the augmentation of self-influence skill sets in newer and arguably less developed and under-researched areas (e.g., self-leadership of emotion, and of collaborative processes) to address one's personal effectiveness (Manz, 2015). Thus, concern with expanded capacity goes beyond simply increasing capacity in a current skill area (such as behavioral self-leadership strategies supporting disciplined behavior).

These areas, which include collaboration as a self-leadership strategy, emotional self-leadership, and an ensemble of other considerations, deserve greater consideration for future research and practice. These are briefly discussed in the sections below.

#### 2.4.3. COLLABORATION AS A SELF-LEADERSHIP STRATEGY

The understanding of self-leadership tends to conjure up the image of an egoistic individual pre-occupied with his or her own interests, needs and motivations. In fact, research indicates that in some cases too much autonomy and self-influence (potentially imparting overemphasis on self as the why for one's choices and actions) can lead to disjointed and dysfunctional outcomes (see, e.g., Langfred, 2005:513, Stewart *et al.*, 2011:185). For this reason, self-leadership should be extended from an intra-personal engagement to an inter-personal collaborative activity that can improve personal effectiveness. The focus here is not on collaboration in in the application of self-

leadership strategies, such as collaborative self-goal setting or self-reward even though this may generate more empowered teams. Rather, the emphasis is on choosing to collaborate in general, for example on a task or project, as this can be an effective self-leadership strategy that fosters expanded access to expertise, support, and potential synergies of working with others. Collaboration can help fill in for personal weaknesses and blind spots and extend capacities, such as expertise and experience, beyond one's own limitations.

Shared leadership is an especially effective collaborative influence process that can be incorporated into one's self-leadership repertoire (Pearce & Conger, 2003; Pearce, 2004:47; Wassenaar & Pearce, 2012:363). Shared leadership can be described as a dynamic interactive process within group contexts where individual members lead one another as they work together to reach group and organisation goals (Pearce & Conger, 2003; Pearce, 2004:47; Wassenaar & Pearce, 2012:363). While specific self-leadership strategies, such as collaborating with a mentor to set and refine personal self-development goals, might be applied as part of a shared leadership process, shared leadership can be employed as a self-leadership strategy to obtain expanded capacity and synergies for one's own performance. Furthermore, self-leadership plays a critical role in promoting effective shared leadership, as group members must lead themselves to step forward and lead when their collective experiences and capacities are needed as much as they should step back so that others can lead when a different type of leadership is needed. Thus, depending on the requirements of the immediate work situation, leadership roles will shift to various members throughout an ongoing work process.

Shared leadership is a leadership perspective that connects the potential performance advantages of collaborative processes with individual self-leadership (Pearce & Manz, 2014:215). For example, when technical challenges that require the specific competencies of co-workers arise, empowering a self-leadership team that generates its input and influence becomes necessary. In contrast, if a crisis arises that requires immediate action and a self-led person knows what needs to be done, then a more directive style of leadership could be adopted temporarily until the challenge is addressed. It should be that, if shared leadership is emphasized without the balancing effect of individual self-leadership, teams may be vulnerable to dysfunctional group processes such as groupthink (Janis, 1983; Pearce & Manz, 2011:563).

#### 2.4.4. EMOTIONAL SELF-LEADERSHIP

Another promising area for application of self-leadership strategies concerns the self-influence of emotion. Emotions can have a powerful effect on our behavioral choices. For example, positive emotions, such as contentment, joy, gratitude and love, have been identified as an important source of far-ranging benefits. Fredrickson (2003:163, 2009) has researched a “broaden and build” theory that suggests that positive emotions can expand potential options for thought and action, while negative emotions tend to reduce them (Jordan, Ashkanasy, & Hartel, 2002:361). More specifically, negative emotions, such as anger and fear, tend to limit choices to options such as attacking or escaping (Lazarus, 1991:819; Fredrickson, 2003:163, 2009). In contrast, positive emotions such as joy, interest, and contentment encourage individual creativity, exploration, engagement, integration, and the expansion of mental, behavioral, and social resources. Increasing positive emotions improves attention and the processing of information (Aspinwall, 1998:1, 2001:591).

Expansion in coping capacity, which can increase further the positive emotions (Fredrickson & Joiner, 2002:172) and engender significant health benefits (Fredrickson, Mancuso, Branigan, & Tugade, 2000:237), has been introduced as a modal process model of emotion regulation that includes different strategies for self-influence of emotion (Gross, 1998:271; Gross & Thompson, 2007:3). Gross (1998:271) defines emotion regulation as “processes by which individuals influence which emotions they have, when they have them, and how they experience and express these emotions”. A consistent overall finding is that antecedent-focused emotion-regulation strategies, such as being selective about entering into situations with potentially emotion-provoking characteristics or reappraisal or a reframing of the emotion-provoking aspects of situations that are applied before emotional responses are triggered tend to be more effective than response focused strategies applied after the emotional response is already underway (Gross & Thompson, 2007:3).

Literature research on the organisation level is still in the early stages but has significant potential for furthering our understanding of how self-leadership can contribute to important issues in the workplace (Côté, 2005:509). For many researchers, this work is connected with the widely studied concept of emotional intelligence, which itself has been framed to include regulation and motivational components (Salovey & Mayer, 1989:185). Stewart *et al.*, (2011:185) identify the self-influence of emotion as an area of potential self-leadership research deserving more



attention. For example, emotional self-leadership strategies might be particularly helpful in addressing the challenges of emotional labor (EL) and the health and performance detriments it can foster (Grandey, 2003:86). As described earlier, EL concerns the intentional self-influence of emotions and the way emotions are displayed, for example in service work in restaurants or hotels, are consistent with the expectations of others (Hochschild, 1983; Rafaeli & Sutton, 1987:23; Ashforth & Humphrey, 1993:88; Duffy, Shaw, Hoobler, & Tepper, 2010:87;). Findings suggest that the regulation of emotions that are not authentically felt can produce undesirable outcomes such as stress and emotional exhaustion (Grandey, 2003:86). In addition, Gardner, Fischer, and Hunt (2009:466) suggest that the emotional inauthenticity inherent in the EL of individuals occupying leadership roles can add yet another dysfunctional outcome by undermining their credibility with followers.

## **2.5. THEORIES ON SELF-LEADERSHIP**

While a broad range of theories can be used to understand leadership many of them tend to be general psychological theories and this study examines those that have resonance with self-leadership. These are social cognitive theory and goal setting theory. Both theories are discussed in subsequent sections of this study.

### **2.5.1. SOCIAL COGNITIVE THEORY**

The major premise of social cognitive theory is that the human action is caused by three mutually interacting factors: 1) behavior, 2) cognitive and other personal factors, and 3) the person's external environment. The three factors do not influence each other simultaneously or with equal strength, as much as they do not influence each other instantly. Time must pass for each of the three factors to exert influence and to receive influence in return. The three factors influence each other bi-directionally, the same way engineers are both producers and the products of their own environment.

Self-leadership is a timely and important topic in today's complex and dynamic work environment, especially when it comes to the question of how to prepare engineers to lead themselves or how to develop and strengthen self-leadership skills, cognitions and behaviors to lead oneself. Therefore, an important component of self-leadership development is to enable the engineering



workforce at Eskom Bloemfontein to successfully confront the current challenges by strengthening selected self-leadership competencies. This study examines this critical issue by integrating physical experience and self-leadership theory. The study also argues that selected self-leadership competencies could be developed and strengthened through physical experience, improved awareness and intellectual reflection to improve job performance. Moreover, this study postulates that these competencies could play a crucial role in the personal development of individuals, which can be understood as a process of growing to maturity, gaining the cognitive, social and emotional competencies required to manage working life, and thus serve as prerequisites for the engineering workforce.

The social cognitive theory represents a marked departure from the behaviorist approach, which posits that an environment causes and determines behavior. Behaviorists ignore human functioning because they assume that behavioral action is caused by external stimuli. However, Bandura (1986) suggests that not only does the environment cause behavior, but behavior also helps shape the environment, in a process that he calls “reciprocal determinism”. Bandura also adds a third factor, which is a person’s psychological processes, or cognitions, to the other two factors (environment and behavior) that reciprocally determine human action. Three aspects of the theory are particularly relevant for organisations and these are: 1) the development of people’s cognitive, social, and behavioral competencies through modeling; 2) beliefs about their capabilities so that they will use their knowledge, skills, and abilities effectively; and 3) motivation through goal systems (Bandura, 1988:137). According to the theory, people who are self-leaders are not just onlookers of their own human body as it wades through environmental events, instead, they are agents of themselves and of their own experiences. The core features of personal agency are intentionality, forethought, self-reactiveness, and self-reflectiveness. Intentionality refers to a proactive commitment to bringing about a future course of action. Forethought means having a future time perspective in which, an individual, in this study the engineer, anticipates the likely consequences of their prospective actions. Self-reactiveness is the deliberate ability to make choices and plans, shape appropriate courses of action, and motivate and regulate their implementation. Finally, self-reflectiveness refers to self-examination of one’s own functioning, or metacognitive ability (Bandura, 2001:1, Bandura, 2006:313).

According to the theory, people can learn vicariously through observation of the competencies of others (Bandura, 1997; Wood & Bandura, 1986:361). Observational learning comprises four constituent processes, which are the attentional, retention, production, and motivational

(Bandura, 1986). Attentional process activities include selecting behaviors to observe, accurately perceiving those behaviors, and extracting information about those behaviors. Retention process activities include remembering, storing and actively rehearsing the self-performance of behaviors retained. Production process activities include performing the newly modeled behaviors and getting feedback about the success or failure of those actions. Motivational process activities include positive incentives to perform the newly learned behaviors, such as past reinforcement, promised reinforcement, external incentives, vicarious incentives, and self-incentives. There are also negative motivations, such as past punishment, threats or promised punishment, and vicarious punishment, to perform, but self-leaders do so by applying self-correcting interventions that involve introspection and negative feeling towards their under-performance. These negative feelings associated with underperformance resonate with Houghton *et al.* (2012:218) observation that excessive self-punishment, including harsh and unrealistic self-criticisms of sub-optimal performance which leads to feelings of guilt and inadequacy, is often counterproductive and should be avoided (Neck & Houghton, 2006; Manz & Sims, 2001). Self-punishment (self-correcting feedback) and self-reinforcement (self-criticism) are essentially opposite sides of the same coin; both involve self-applied consequences (positive for self-reinforcement and negative for self-punishment) for individual behaviors on the job (Manz, 2015:135).

The theory also emphasises the potential of human capacities to promote self-direction and self-motivation. Through a process of self-evaluation, people keep their behavior in line with their standards, and through a process of self-reward, people give themselves positive (praise, pride, a treat) or negative (shame, guilt, embarrassment) reinforcement. People who perform desired behaviors and reward themselves tend to perform better than those who perform behaviors but do not reward themselves. However, excessive self-punishment can lead to overcompensation, inactivity (apathy, boredom, and depression), and escape (substance abuse, technological or virtual obsessive fantasy, and even suicide) (Baumeister, 1990:90; Chatard & Selimbegovic, 2011:587).

## 2.5.2. GOAL SETTING THEORY

The theory of goal setting rests on the belief that life is a process of goal-oriented action (Locke & Latham, 1990, 2002). Goals can be defined as outcomes that individuals try to accomplish (Locke, Shaw, Saari, & Latham, 1981:125; Asplund & Blacksmith, 2013). In organisations, people

are motivated to direct their attention toward and achieve goals. Goals have both an internal and an external aspect for individuals. Internally, goals are the desired ends of achievement; while externally, goals refer employees to an object or to a condition being sought, such as a performance level, a sale to a customer, or a promotion (Locke, 1996; Locke & Latham, 2006). The positive relationship between goal setting and task performance is, thus, one of the most replicable findings in the management and organisation literature (Locke, Shaw, Saari, & Latham, 1981:125; Van Mierlo & Kleingeld, 2010).

According to the goal setting theory, the highest levels of performance are usually reached when goals are difficult but specific. This means that, *ceteris paribus* (all other things being held constant) the more difficult a goal assigned to engineers and technologists at Eskom, the greater the resultant performance of this engineering workforce. When a specific, difficult goal is set for employees, goal attainment provides those employees with an objective and an unambiguous basis for evaluating the effectiveness of their performance (Locke & Latham, 2006:265). Goals influence performance levels by affecting the direction of action, the degree of effort exerted, and the persistence of action over time. For example, when an engineer is told to improve quality and not make mistakes, that engineer will focus his/her energy on producing a higher-quality product compared to when that engineer is merely told to “to his best” on the task. The only exception to this is that for some creative tasks, being specific may not always be possible. People learn from a very early age that if they want to accomplish a goal, then they have to pay attention to the goal and keep working hard until the goal is reached.

Performance has been shown to be higher when goals are higher, people are committed to reaching the goal, and when people possess the required ability and knowledge to achieve that goal (Locke, 1968:157; Locke & Latham, 2006:265; Van Mierlo & Kleingeld, 2009). It is advisable that specific goals, such as “selling one hundred computers”, be made, when giving people goals to perform. The assignment of easy goals to employees is not usually a problem as they easily show their commitment to accomplishing those goals. However, getting employees to commit to goal attainment, in the face of difficult goals, can be problematic. Yet higher performance levels usually obtain when people are committed to reaching specific goals, compared to a situation where people are not committed to any goal attainment. Higher levels of commitment can be reached when an individual believes that reaching the goals is both important and attainable, or at least believes that progress toward reaching the goal is possible. Therefore, goal setting has been shown to result in higher levels of performance when goals are either assigned to individuals

or when individuals are allowed to set goals for themselves (Hollenbeck & Brief, 1987:392; Kleingeld *et al.*, 2011).

## 2.6. STUDIES ON SELF-LEADERSHIP

The previous sections of this literature review covered the conceptual understanding of self-leadership. The following section examines empirical studies on self-leadership across various contexts.

### 2.6.1. APPLICATION OF SELF-LEADERSHIP IN DEVELOPED AND EMERGING ECONOMIES

Empirical studies about the application of self-leadership conducted in the United States of America (USA), Europe, Iran and South Africa are examined in subsequent sections of this study. Since most of the studies used the institution and the employees studied as their main unit of analysis, the inclusion criteria adopted in this study are the organisational and individual levels of the studies in question.

#### 2.6.1.1. United States of America Context

Elloy and Patil (2014) examine the relationship between self-leadership and emotional exhaustion, depersonalisation, burnout and personal accomplishment in a manufacturing plant located in the Pacific Northwest, USA. Based on a sample of 166 employees, the results indicated that employees who experienced low levels of self-leadership had higher levels of emotional exhaustion, whereas employees who experienced higher levels of self-leadership had lower levels of emotional exhaustion. No significant relationships were found with the other two dimensions of burnout. In this study, it appears that low levels of self-leadership lead to high levels of emotional exhaustion as employees work in an environment where they are not empowered to make decisions and lack the autonomy and responsibility to make decisions. Furthermore, employees who experience higher levels of self-leadership have more autonomy and are empowered to make job-related decisions. This feeling of being in control appears to reduce the levels of emotional exhaustion. The results were, however, not significant with respect to personal

accomplishment, although employees who experienced lower levels of self-leadership had lower levels of personal accomplishment.

The same study also shows that employees who experienced higher levels of self-leadership had higher levels of personal accomplishment. No significant relationship was found with depersonalisation, indicating that they were not totally disengaged from their job. One possible reason for this could be that employment security was important for the employees. However, the extent to which these findings could be replicated in emerging economies remains unknown.

#### 2.6.1.2. European Context

A study conducted by Andressen *et al.* (2012) examines the relationship between self-leadership, transformational leadership, and work motivation (i.e., self-efficacy and instrumentality) in relation to job performance and affective commitment in Europe. Three competing models of self-leadership, which are theoretically plausible, are compared in this study. These are self-leadership acting as (a) a process factor mediating the relation between transformational leadership and employee motivation; (b) an input factor, simultaneously with transformational leadership; and (c) a process factor mediating the relationship between work motivation and job performance/affective commitment.

The first aim of this study was to examine the role of self-leadership in a more comprehensive leadership model, represented by its relationship to transformational leadership, motivation, and outcomes. Three competing models were examined, each of which focused on different roles of self-leadership within the context of transformational leadership, motivation, and different outcomes (job performance and affective commitment). The results suggest that self-leadership acts as a process factor that determines motivation. The second aim was to examine the moderating role of virtuality within this leadership model. Therefore, they conducted a comparison between virtual and collocated work structures. Here, the results showed that team leader virtuality has a moderating effect on the relationship between transformational leadership and self-leadership. This indicates that transformational leadership has a lower influence on self-leadership in virtual team settings where the team leader is physically distant from the team members. The second hypothesis on the moderating influence of team member virtuality, which

assumes that self-leadership has a higher influence on motivation in virtual work structures than in collocated work structures, was supported.

Furthermore, these results provide evidence for the differentiation between the self-leadership concept and other related motivational constructs. In addition, these results confirm the postulation that other motivational variables, such as self-efficacy and instrumentality, explain why self-leadership has a positive relationship with different outcome variables. These findings are consistent with previous research that shows that motivational variables have a mediating influence on the relationship between self-leadership and performance (Prussia et al., 1998; Konradt *et al.*, 2009).

Andressen *et al.* (2012) expands on this study through their more comprehensive reflection of the picture of self-leadership within a traditional leadership model and their demonstration of the advantage of this structure of variables over a model in which self-leadership is a volitional variable mediating the relation between motivational variables and outcomes. Moreover, this study provides the first empirical evidence for a positive relationship between transformational leadership and self-leadership. The findings concur with other studies that confirm that transformational leadership encourages self-management (Avolio & Gibbons, 1988) and also confirms previous studies that demonstrate a positive relationship between transformational leadership and employee empowerment (Dvir *et al.*, 2002; Jung & Sosik, 2002; Jung *et al.*, 2003; Kark *et al.*, 2003).

Although previous empirical findings presented performance as an outcome variable in a positive relationship with all other model components, commitment as an outcome variable has only been examined in relation to transformational leadership (Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). This study (Andressen *et al.* (2012) extended the research by indicating a positive relationship between self-leadership and affective commitment. Nevertheless, the proposed relationship between self-leadership and affective commitment (see Houghton & Yoho, 2005; Manz & Sims, 2001; Neck & Houghton, 2006) could not be confirmed, as they did not examine this relationship separately.

### 2.6.1.3. Middle East Context

One of factors that affect employee satisfaction is self-leadership. Javadi *et al.* (2013) investigate the relationship between self-leadership and the job satisfaction of employees in an educational organisation in Isfahan, Iran. The finding suggest that “behavior focused strategies”, “natural reward strategies” and “constructive thought pattern strategies” had a significant effect (with a significant correlation coefficient of 0.61, 0.59 and 0.63) on job satisfaction and self-leadership influences on job satisfaction with a significant correlation coefficient at 0.73. The findings showed that self-leadership can be considered as a predictor of job satisfaction. The results of this study imply that having self-leadership characteristics can influence job satisfaction, hence the inclusion of self-leadership skills among employees is a good way to increase their satisfaction.

### 2.6.1.4. South African Context

Van Zyl (2013) examines self-leadership and happiness within the South African working context (Schools, Manufacturing, mining and electricity sectors). The aim of this conceptual and theoretical research, was to integrate self-leadership and happiness by means of a model and to discuss the effect of self-leadership on happiness in order to apply it within the current African working context (Schools, Manufacturing, mining and electricity sectors). A non-empirical research paradigm (conceptual research) was adopted. The social learning theory was utilized to integrate self-leadership and happiness and applied within the working situation. It was noted that self-leadership can have an effect on happiness within the African working context (Schools, Manufacturing, mining and electricity sectors). The study also suggests that an implementation of practices founded on self-leadership and happiness, and integrating them with traditional African values and beliefs, would contribute to all African employees’ achievement of their full work potential.

A study conducted by Jooste and Roux (2014) examines the practice of self-leadership in personal and professional development of contract nursing staff in a higher education institution. Since contract employment is increasingly becoming a trend among higher education institutions to address nursing faculty shortages, self-leadership may be challenging for contract employers who struggle to remain positive about their temporary employment status. The same study elaborates that contract staff continue to feel under-valued by the organisation, and that job insecurity and fewer benefits may decrease their level of motivation and self-leadership in an



organisation. In contrast to the foresaid statements, the same study reports that self-leadership, may assist contract staff to regulate their own actions, personally and professionally, because the motivation to lead may promote higher productivity and a more fulfilling career.

In spite of the differences in employment conditions generally experienced by temporary employees, surveys through the years have shown that these staff members are generally just as satisfied with their choice of academic career and institution as their full-time or permanent counterparts (Gappa, 2008). The productivity and general well-being of these staff members and those in permanent positions are equally important and are critical for the quality and success of the institution. In these situations where employees are self-motivated to be productive, such positive attitude may help them effectively manage negative situations or experiences in the workplace and hence improve their expression of self-leadership.

## **2.7. IMPLICATIONS OF SELF-LEADERSHIP ON PERFORMANCE**

The leadership theory plays a central role in explaining operations management processes such as the development and implementation of business strategies' management of innovation management (Martin, Joachim, Norma, Roger & Manoj, 2010:240). Research evidence links organisational success to various features of leadership, such as self-leadership (Houghton, Dawley & DiLiello, 2012:216). The significance of self-leadership for an organisation can also be noticed in the financial resources allocated to leadership development. According to Goldman, Wesner, and Karnchanomai (2013:63) organisations spend billions each year on leadership development programs, yet the benefits for organisations and the individuals who complete these programs are not yet discernible or well understood. Therefore, understanding the impact of self-leadership on organisation performance became of interest to scholars and practitioners. At a team level, most studies on self-leadership focused on task performance to understand the role of self-leadership in achieving a high level of team performance aspects such as proficiency, adaptation or proactivity (Hauschildt & Konradt, 2012:497). In a German business context, Hauschildt and Konradt (2012:497) conducted an empirical study on Self-leadership and team members' work role performance, in which self-leadership was measured using the revised Self-Leadership Questionnaire (RSLQ) developed by Houghton and Neck (2002:672). The results of the study indicated that the self-leadership was positively related to adaption and proactivity at the individual and team task level. The study was confirmed by Neck and Houghton's (2006:270)



while investigating two decades of self-leadership theory as their research suggests that self-leadership positively influences individual performance and team performance.

## **2.8. LOCUS OF CONTROL**

Locus of control has been defined as the extent to which individuals believe that they have control over their own destiny. It refers to one's belief in his or her abilities to control life events (Strauser, 2002:20; Hillol & Poonam, 2014). In other words, locus of control is defined as one's belief that one's own power or forces are influential to any positive or negative situation occurring during their life (Sardogan, 2006:184).

## **2.9. COMPONENTS OF LOCUS OF CONTROL**

The locus of control construct has two dimensions, which are, internal locus of control and external locus of control.

### **2.9.1. INTERNAL LOCUS OF CONTROL**

Individuals who have internal locus of control think that they have a big role to play in affecting the events which influence their lives. Furthermore, they assess themselves as possessing power over the attitude they want to display by having the positive ego concept, and believe that they can direct their lives whatever way they desire (Gülveren, 2008). These individuals believe that they are the masters of their destiny and are therefore, often confident, alert, and active in attempting to control their external environments. Moreover, they tend to see a strong connection between their actions and the consequences of those actions (Thomas *et al.*, 2006:107). Hence, they are more likely to believe that performing well at work will lead to positive work outcomes such as increased pay or promotion (Muhonen & Toekelson, 2004:21)

### **2.9.2. EXTERNAL LOCUS OF CONTROL**

The individuals with external locus of control relate the events affecting their lives to perceptions that are out of their control, such as chance, fate, and fortune. They also believe that the events

affecting their lives cannot be predicted and controlled (Küçükkaragöz, 1998; Rastegar & Heidari, 2013). Individuals with internal locus of control are careful, alert, dominant, focused on success, self-confident, and ingenious on the one hand, while the individuals with external locus of control are on the other hand less careful, affected by the group members, easily influenced by external forces, less self-confident, and display erratic as well as unsteady performance (April *et al.*, 2012). The external locus of control-oriented individuals believe that they do not have direct control over their destiny and see themselves in a passive role with regard to the external environment (Thomas *et al.*, 2006:107). They are also more likely to attribute their success at work to external forces such as chance or fate. Therefore, individuals lay out two control attitudes - internal and external, in their consideration of the reinforcements they have from their previous experiences, which they attribute to their own attitudes or external forces (Cetin, 2008; Wang *et al.*, (2010:761).

## **2.10. VARIOUS PERSPECTIVES ON LOCUS OF CONTROL**

The belief of locus of control is related to the reinforcements, such as the results, prizes, their success or failures, which would have happened throughout individuals' lives. These attributions refer not only to chance, fate, and powerful people out of one's control, but also to the results of one's own attitudes (Basim & Sesen, 2006:159; Ghasemzadeh & Saadat, 2011). While the fact that one's control on his/her own life is dependent on chance, fate and powerful people can be explained as external control and as such, maintaining the individual control over one's life is described as the internal control (Rotter, 1966; Kurt *et al.*, 2012). When environmental conditions are not sufficient to explain individuals' success or failures, locus of control can facilitate in making these situations clear. For instance, individuals may sometimes perceive good and bad events in different ways and end up mentioning these differences on the grounds of external and internal forces (Taylor, 2006).

Individuals lay out two control attitudes, as internal and external, by considering that the reinforcements they have from their previous experiences result from their own attitudes or external forces (Cetin, 2008). These differences between internal and external locus, in accordance with the qualities of an individual, are shown in Table 2.1 below.

**Table 2.1: The differences among the individuals with external and internal locus of control**

<b>VARIABLES</b>	<b>INTERNAL LOCUS OF CONTROL</b>	<b>EXTERNAL LOCUS OF CONTROL</b>
<b>ABILITIES</b>	Individuals with internal locus of control have a tendency to choose activities in which they can display their abilities.	Individuals with external locus of control prefer activities in which they can show the role of chance in their lives.
<b>RESPONSIBILITY</b>	They feel that they are responsible for their own decisions, and perceive that their fate is not affected by factors out of their control, but by their own decisions.	They try to increase good conditions in their life and also make an effort to reduce the level of bad conditions.
<b>CHANGE</b>	Their belief that they have control over their fate prevents them from getting suspicious of the changing period since they feel responsible for their own actions.	They usually view change as a danger as they do not feel in control of the forces affecting their lives. They prefer to be at a status where they can be passive in case of change.
<b>ENVIRONMENT</b>	They have more control over their environment and display a better learning performance. When the information is about their own conditions, they actively search for new information. They also use the information better if they want to solve a complicated problem.	Those with external tend to comply more as they can't control their environment. They display more compliance attitudes than individuals with internal locus of control.
<b>STRESS</b>	It can be concluded that possessing internal locus of	Employees with external locus of control cannot cope

	control can help employees cope with stress and other difficulties in business.	with the stress and difficulties in a proper way.
<b>JOB SATISFACTION</b>	Job satisfaction for individuals with internal locus of control is higher than a person with external locus of control. They can do better business and benefit or get prizes in return. They tend to improve or progress faster and get more wages.	External locus of control has a negative correlation with job satisfaction; however it is in a positive correlation with mental and physical health.
<b>WORK MOTIVATION</b>	They mostly believe that their efforts will end with a good performance. They are more self-confident and trust their abilities. They have more expectation that their good performances will be awarded and tend to perceive their status in business as proper and fair.	If there is no prize for performance, they are not motivated to perform.

Source: Demirkan and Selcan (2006:36)

Table 2.1 presents the behavioral qualities displayed by employees with internal and external locus of control. In addition to Table 2.1, the external locus of control has two types. The first one is the proper locus of control. The individuals with proper locus of control have a more real rationale for assessing their worlds, which are controlled externally. They make a little effort to make socioeconomic conditions better. The second locus of control is the defender locus of control. It has been noted that individuals with this locus of control attempt to use external beliefs as a defense for the expected inadequacies. In addition, one of the differences between individuals with internal and those with external locus of control relates to how they search for information about their environment. The people with internal locus of control have been observed to feel the need to acquire more information about their environment, and are active when it comes

to seeking and achieving justice in social activities, when compared with those with external locus of control (Demirkan, 2006; Zaidi & Mohsin 2013).

## **2.11. THEORIES OF LOCUS OF CONTROL**

While a broad range of theories can be used to understand locus of control, this study examines those that have resonance with locus of control exclusively. Both theories, the social learning theory and planned behavior theory, are discussed below.

### **2.11.1. SOCIAL LEARNING THEORY**

The theory is here defined in terms of the Eskom engineering workforce's goals, expectancies, and social reinforcements. According to social learning theory then, Eskom engineering workforce's behavior is determined by its goals. Behavior is always directional. An engineer, for example responds to those behaviors that he/she learned would lead to the greatest satisfaction in a given situation (Rotter, 1971). According to Strain (1993), Rotter's social learning theory proposes that the probability of a behavior occurring is related to the engineer's expectancy that the behavior will gain reinforcement and that the reinforcement has value to the engineer. For example, of efficient task execution in a high voltage substation is conceived to be gaining reinforcement and to be internally rewarding for the engineer, the engineer is then bound to increase job performance and perform better. Social learning theory of locus of control was postulated by Rotter. Rotter chose the label "Social Learning" because the theory stressed that the majority of basic modes of behavior are learned in social situations and inextricably fused with need requiring for their satisfaction (Naila, 2001).

Bandura's (1997) social learning theory posits that individuals learn from one another, via observation, imitation, and modeling. This means novice engineers at Eskom may learn through observing other senior engineers' behavior, attitudes, and outcomes of their problem solving and task execution in authentic power generation and distribution contexts such as main power stations and substations. Hence, as noted by (Kisamore, 2010) "Most human behavior is learned observationally through modeling: from observing others, one forms an idea of how new behaviors are performed, and on later occasions this coded information serves as a guide for action". Thus the social learning theory explains human behavior in terms of continuous reciprocal interaction

between cognitive, behavioral, and environmental influences. Hence, the theory has often been called a bridge between behaviorist and cognitive learning theories because it encompasses attention, memory, and motivation.

Finally, according to Morris (1993), the main idea of the social learning theory remains the same, which is that there is always an interaction among three factors, being the person, the situation, and the evaluation of expectancies obtained by that person from that person's experiences.

### 2.11.2. THEORY OF PLANNED BEHAVIOR

The main theme in planned behavior is that the best way to predict and explain a person's behavior is through that person's behavioral intentions. For example, the theory assumes that: 1) individuals such as the Eskom engineering workforce tend to behave rationally and to systematically make use of information that is available to them when deciding to act or not to act, 2) their actions are guided by conscious motives and not by unconscious motives, and 3) they consider the implications of their actions before they decide to act or not to act (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). Based on these assumptions, the theory was originally called the theory of reasoned action (Ajzen & Fishbein, 1980). According to the theory, an Eskom engineer's attitude and subjective norms influence his/her behavior intentions. The engineer's behavioral intentions then influence their behavior. Attitude, here, refers to the engineer's favorable or unfavorable appraisal of their behavior. Subjective norm refers to the perceived social pressure from other engineers to perform or not perform the behavior. Intentions refer to the motivational factors that influence an engineer's behavior and indicate how willing a person is to attempt a behavior as well as how much effort he/she is likely to exert toward that behavior. In general, the stronger the intention to perform a behavior, the more likely a person is to perform that behavior (Ajzen, 1991).

The theory of reasoned action has had much research success. Madden, Ellen, and Ajzen, (1992:3) and Martin *et al.* (2010) report that the theory has been widely used to model the prediction of behavioral intentions and behavior. A meta-analysis by Sheppard, Hartwick, and Warshaw (1988) and Kisamore (2010) notes that the theory predicts both behavioral intentions and behavior quite well, and is useful in identifying where and how to change an individual's behaviors. Later research found that an important variable, that of perceived behavioral control,

was missing from the theory of reasoned action (PBC). For example, Bandura, Adams, Hardy and Howells (1980:39) and Baker and White (2010) show empirical evidence to the effect that an engineer’s behavior is strongly influenced by his/her level of self-confidence and self-perception that he/she has the ability to perform a behavior. On the basis of these research findings, PBC was added to the theory of reasoned action, and the theory was renamed the theory of planned behavior (Ajzen, 1985).

According to the theory, a behavioral intention can be expressed as a behavior only if that behavior is under the perceived control of say, the Eskom engineers in the case of this study, which means that an engineer perceives himself as having complete control over deciding whether to perform that behavior or not (Ajzen, 1991). For example, Eskom engineer’s may strongly desire to perform or possess resources, such as knowledge, skills, abilities information, time, money, equipment and cooperation of others, to actually perform it (Triandis, 1977; Sarver, 1983:155; Liska, 1984:61; Kuhl, 1985:99). Both behavioral intentions and PBC directly predict performance of a behavior (Ajzen, 1991, 2001; Hoie & Rise, 2010).

## 2.12. STUDIES OF LOCUS OF CONTROL IN GENERAL

The previous sections of this literature review covered the conceptual understanding of Locus of control. The following section focuses on empirical studies on Locus of control across various contexts.

The first empirical study on locus of control in literature (see Chen & Silverthorne, 2008; Aube et. al.) appeared to find an answer to the question of whether individuals’ expectations are related to their abilities or chance (Sardogan, 2006:184). In present literature there have been many studies on locus of control. Some of these studies have been presented in Table 2.2 below.

**Table 2.2: Studies conducted on locus of control**

<b>Author(s)</b>	<b>Years</b>	<b>Countries/Regions</b>	<b>The Purpose of the Study</b>	<b>The Method of the study</b>	<b>The Findings and Results of the Research</b>
Chen and Silverthorne	2008	Mainland China (Taiwan)	To observe the effects of locus of	Quantitative	In scales of locus of control it was observed

			control, work performance, job satisfaction, and stress scale on attitude.		that performance, job satisfaction, and stress affect people's responsibilities. Moreover, individuals with high internal control have high work performance, content and low stress.
Chiu et. al	2005	Taiwan	To assess the effect of internal and external locus of control on the locus of control.	Quantitative	It was concluded that individuals with internal locus of control are affected by the labor turnover rate and work content in the organisation more than the ones with external locus of control. Furthermore, people with external locus of control rather than the



					ones with internal locus of control are influenced by stress on organisational participation and work content.
Basim and Sesen	2006	Southeastern Europe	To analyse the tendency of the locus of control to the display of assisting and courtesy attitudes.	Quantitative	It was identified that most of the participants who had internal locus of control; displayed more tendencies to show help and courtesy attitudes when compared to the ones with external locus of control.
Selart	2005	Northern Europe	To research whether locus of control has an effect on the decision making periods of the organisations.	Quantitative	It was reported that managers with low internal locus of control had more tendencies to consult and make group

					<p>decisions than the ones with high internal locus of control do.</p> <p>Additionally, the managers with external locus of control take the role of participant in decision making more than the ones with low internal locus of control.</p>
Aube et. al.	2007	North American (Canada)	To test the effects of the perceived organisational support, work autonomy, the facets of organisational participation (active, normative, etc.), on locus of control.	Quantitative	The findings suggest that there is a positive correlation between organisational support, and normative participation, and activities. It was also concluded that locus of control and work autonomy have

					a considerable effect on organisational support and active participation.
Coban and Hamamcı	2006	United States of America	To examine the decision making strategies used by individuals with different locus of control.	Quantitative	The research concluded that individuals with internal locus of control mostly use logical decision making strategy. It was found out that there is a negative and low correlation between logical decision making strategy and locus of control. It was revealed that individuals with internal locus of control use logical decision making strategies more than the ones

					with external locus of control who often hesitate to make decisions.
Sardogan et. al.	2006	Mediterranean coast of Southern Turkey	To observe the effect of a 10-session Human Relations Skills Education Program on University students' levels of locus of control.	Quantitative	It was concluded that the 10-session Human Relations Skills Program was effective in enhancing the locus of control of university students.

Table 2.2, above presents and summarises the studies on locus of control. The effects of the internal and external facets of locus of control on individuals' attitudes were analysed in the studies and it was ascertained that internal locus of control has a much bigger impact on an individuals' job performance than the external locus of control. Moreover, it was emphasised that individuals with internal locus of control have more work motivation and portray more effective work performance as they have more control on the environment. Finally, individuals with external locus of control have been considered as having a higher work content about their colleagues than those with internal locus of control.

## 2.13. APPLICATION OF LOCUS OF CONTROL IN DEVELOPED AND EMERGING ECONOMIES

Empirical studies on the application of self-leadership that were conducted in the USA, Europe, Iran and South Africa are examined below. Since most of the studies used the institution and the employees studied as their main unit of analysis, the inclusion criteria adopted in this study are the organisational and individual levels of the studies in question.

### 2.13.1. Unites States of America Context

Wang *et al.* (2010) meta-analytic examination of work and general locus of control in the city of Dayton in the USA reveal that work locus of control contributes greatly to what is known about the role of locus of control in the workplace. In addition, Ng *et al.* (2006)'s examination of the influence locus of control at work in Georgia city, USA, from a meta-analytical perspective, found out that locus of control was related to several important criterion variables, including job attitudes, employee well-being, job performance, withdrawal intentions, withdrawal behavior, perceptions of the work environment, interpersonal relationships at work, and coping behavior. Consistent with prior research on frame of reference effects in personality assessment (Schmit *et al.*, 1995; Hunthausen *et al.*, 2003; Bing *et al.*, 2004; Lievens *et al.*, 2008), but contrary to the results of Ng *et al.* (2006), the study by Wang *et al.* (2010) claims that work locus of control consistently yields stronger relationships with a work-related criteria than general locus of control.

Of note also, is the fact that the study by Wang *et al.* (2010) also postulates a relatively stronger relationships between general locus of control and general criteria than between work locus of control. They also found out that the general locus of control was more strongly related to life satisfaction and problem focused coping than work locus of control. In the final analysis, these results are consistent with the principle of compatibility (Fishbein & Ajzen, 1974), which suggests that compared with specific predictors, broadly measured predictors should yield stronger relationships with general criteria. The results of the regression analyses are also consistent with the research examining frame of reference effects, which found that contextualised personality measures asking about how one behaves at work predict work related outcomes after the effects of general personality measures have been controlled (Bing *et al.*, 2004). They specifically found that work locus of control is related to several work-related criterion variables beyond the effects of general locus of control. Furthermore, the regression analyses of the general criteria are

consistent with the principle of compatibility (Fishbein & Ajzen, 1974), because they found out that the general locus of control yields stronger unique relationships than work locus of control.

### 2.13.2. European Context

Mustafa (2011) examined the goal orientations, locus of control and academic achievement in prospective teachers, in his study 270 undergraduate students studying in different majors at the Faculty of Education in Pamukkale University in Turkey. The results show that mastery goal orientation was positively related with locus of control ( $r = .35$ ;  $p < .01$ ) and academic achievement ( $r = .15$ ;  $p < .05$ ) and avoidance goal orientation was negatively related with locus of control ( $r = -.21$ ;  $p < .01$ ) and academic achievement ( $r = -.19$ ;  $p < .01$ ). A positive relationship was found between locus of control and academic achievement ( $r = .14$ ;  $p < .05$ ). These results suggest that the level of internal locus of control and mastery goal orientation increases the level of academic achievement increases, and that as the level of avoidance of goal orientation increases the level of academic achievement decreases, just as the level of internal locus of control results in an increase of the level of the mastery goal orientation, as well as the fact that an increase of the level of external locus of control decreases the level of avoidance goal orientation increases.

The results obtained in this study suggest that the teachers should stimulate their students to develop and use internal locus of control and mastery goal orientation to increase their academic performance and to enhance internal locus of control for them to become good mastery learners.

### 2.13.3. Middle East context

A study on locus of control and job satisfaction in private international schools in the Sultanate of Oman conducted by Hans *et al.* (2014) indicates that teachers at private international schools were primarily driven by internal locus of control and their level of job satisfaction was high. The study focused on the relationship between locus of control and job satisfaction among teachers of 7th to 12th grade in these schools. The study also used descriptive statistics in its report on the effects of demographic variables on locus of control and job satisfaction in private international schools. It was observed that male and female teachers of private international schools were controlled by internal locus of control since they had a high score in individual control. Male teachers were found to have slightly more internal locus of control compared to females as the

score for male teachers were 3.65 and females were 3.58. Both male and female teachers were found to be satisfied with their jobs as the percentage of satisfaction for males were 84% and females 83%. When it comes to age, it was found out that the score for locus of control for individual control were 3.69, 3.73, 3.52, 3.50 and 3.75 respectively for all the age groups. All the five age group ranges indicated that the teachers tend to take responsibility over the outcome of their work. In chance control and powerful other, the score was around 2.5, which states that the teachers of private international school take responsibility over their work outcomes. The teachers of private international schools were highly satisfied with their jobs as the percentages of satisfaction in all the age groups are high. It was also found that the score of individual control is high when compared to chance control and powerful others. It is concluded that the teachers take more responsibility of their favorable and unfavorable outcomes. The teachers, with their different years of experience in private international schools, were found satisfied with their job as the percentage of satisfaction was more than the dissatisfaction level. The study concluded that teachers who teach in private international school were driven by internal locus of control. It may be inferred that the teachers were more responsible in delivering their academic duty, as they were internally driven they withdrawn satisfaction from their work itself. It was conferred that private international school teachers in Sultanate of Oman were satisfied with their jobs as they score a high percentage on the level of satisfaction on job satisfaction scale.

#### 2.13.4. South African Context

A critical review of association between locus of control and job satisfaction in employees conducted by Gangai *et al.* (2016) indicates that employee job satisfaction in the workplace is one of the important objectives of human resource managers and practitioners, if performance and productivity are to be improved. Job satisfaction is a psychological state of the human mind and it is subjective to individual experience and expectation. In addition, personality often plays an influential role. Another study conducted by Vijayashree and Jagdishchandra (2011) states that internal/external locus of control impacts on job satisfaction. The aim of the study was to analyse the type of locus of control and its relation to job satisfaction. The study also focused on organisation to determine the type of locus of control that employees had and how it impacted on job satisfaction. The results indicate that there was a positive correlation between internal locus of control and job satisfaction as well as between External (other) locus of control and job satisfaction. In the case of External (Chance) locus of control and job satisfaction, there exists a

partial positive correlation. There is no significant relationship between internality and demographic factors such as gender and education. There is also no significant relationship between externality (chance) and demographic factors such as gender and education.

Work performance in any organisation is based mostly on employee job satisfaction. A satisfied person can perform better both at home and at the workplace than a person with dissatisfaction. In this regard it is important to find out the relationship of locus of control and the job satisfaction of employees working in different organisational sectors. After investigating and critically analysing the numbers of research studies, it was found out that people having an internal locus of control are more satisfied with their jobs than to people with an external locus of control. The findings from different studies indicate that people with an internal locus of control are more satisfied with their jobs, more productive and more work oriented than their counterparts who possess with an external locus of control. In this regard, the test of locus of control can be suggested during the time of screening and appointment in any organisational sector, especially for administrative jobs in any organisational sector.

#### **2.14. IMPLICATIONS OF LOCUS OF CONTROL FOR JOB PERFORMANCE**

One of the psychological variables of interest that might contribute to job performance among employees and has not been adequately examined is locus of control. Often people with an external locus of control depend on other people's wills, needs, perceptions and interpretations rather than their own behavior (Muhonen & Torkelson, 2004:21). Contrary to this, people who in possession of an internal locus of control determine their behavior, which shapes their wills, needs, perception and interpretations (Thomas *et al.*, 2006:107). Many researchers have shown that locus of control has an important role on individuals' lives. Thus, locus of control affects both one's physiological and psychological health to a considerable extent. Thus, although locus of control' is subjective, it can cause psychological problems. In addition, locus of control is another factor found to be related to performance (Spector, 1982:482; Spector & OConnell, 1994:1; Sonnentage *et al.*, 2010). Individuals with an internal locus of control seem to adapt better to varying situations in a more functional way than does people who have an external locus of control (Forte, 2005:65). Wang *et al.*, (2010:761) found that individuals with an internal locus of control orientation appear more motivated, perform better on the job, and express higher levels satisfaction than individuals with an external locus of control. Chen and Silverthorne (2008:572)



state that locus of control has been found to be positively associated with low-perceived stress and high performance. If individuals with internal locus of control are found to take charge, perform better on complex tasks, are easier to motivate, and exercise a higher degree of initiative than externals, as much of the research using Rotter's I-E questionnaire suggests, then it is reasonable to expect such individuals to demonstrate higher performance ratings and maintain a significantly greater performance average on their jobs than those with external locus of control.

Several studies support the notion that internals (people with internal locus of control) exert greater effort on the job and are subsequently better performers (Muhonen & Torkelson, 2004:21; Thomas *et al.* 2006:10 Asgari & Vakiri, 2012:25567) than externals (people with external locus of control). The measure of performance within these studies is of key concern. Previous studies investigating the relationship between locus of control and job performance have showed a modest but significant relationship (Rana *et al.*, 2011). Finally, Thomas *et al.* (2006:107) studied the relationship of locus of control and several organisational variables including performance. Locus of control was correlated with performance, with internals, as in the studies reported above, and it receiving the higher performance ratings.

Since the main objective of this study is to ascertain the relationship between self-leadership, locus of control and job performance in a public utility, it is important to examine job performance before examining the relationship between self-leadership, locus of control and performance.

## **2.15. JOB PERFORMANCE**

The concept of job performance has received considerable scholarly research attention over the past 15 to 20 years (Sonnentag *et al.*, 2010:352). A new phase of research that begun in the mid-1980s and expanded in the early 1990s revealed optimistic results for the personality - job performance relationship (*ibid*). Job performance borrows from Organisational Citizenship Behavior (OCB), which is defined as an extra role-discretionary behavior intended to help others in the organisation or to demonstrate conscientiousness in support of the organisation (Borman & Motowidlo, 1993:71). Job performance is also defined as the total expected value to the organisation of the discrete behavioral episodes that an individual carries out over a standard period of time (Asiedu-appiah *et al.*, 2014:44).

The performance of an organisation or business enterprise is linked with the efficiency and effectiveness with which it carries out its tasks in the process of providing products and services (Naude, 2007:3). It is important for organisations to appreciate their employees so as to obtain the maximum from them and increase productivity. All organisations, especially those in the Third World, which require a major increase in efficiency, must provide an environment in which their employees feel comfortable to achieving the organisation's objectives through their knowledge, experiences, abilities and capabilities (Asgari & Vakili, 2012:2556). This cannot be achieved without analysing and recognising the employees' personality traits and examining how they impact on their performance.

## **2.16. COMPONENTS OF JOB PERFORMANCE**

Researchers agree that performance has to be considered as a multi-dimensional concept. A great deal of attention has been paid to the distinction between task and contextual performance. In order to generalise the job performance into a more parsimonious structure, Borman and Motowidlo (1993:71) separated the performance domain into two dimensions: task performance and contextual performance.

### **2.16.1. TASK PERFORMANCE**

Task performance, which covers a person's contribution to job performance, refers to actions that are part of the formal reward system (i.e., technical core), and addresses the requirements as specified in job descriptions (Asiedu-appiah *et al.*, 2014:44). At a general level, task performance consists of activities that transform materials into the goods and services produced by the organisation or to allow for efficient functioning of the organisation (Motowidlo *et al.*, 1997:71). Thus, task performance covers the fulfillment of the requirements that are part of the contract between the employer and employee. In addition, task performance includes activities that maintain the technical core of an organisation by replenishing raw materials, distributing finished products, providing planning, coordination, supervising, or staff functions that enable the organisation to function effectively and efficiently (Lepine & Crawford, 2010).

## 2.16.2. CONTEXTUAL PERFORMANCE

However, it is often not sufficient to comply with formal job requirements as one needs to go beyond what is formally required (Parker *et al.*, 2006:636; Sonnentag & Frese, 2002:3). Contextual performance includes behaviors that contribute to organisational effectiveness through its impact on the psychological, social, and organisational context of work. These behaviors include influencing others to carry out organisationally valuable work, defusing hostility and conflict, and encouraging interpersonal trust (Tutar *et al.*, 2011). Contextual activities are important because they contribute to organisational effectiveness in ways that shape the organisation's social and psychological context. Contextual activities include volunteering to carry out tasks and activities that are not formally part of one's job and helping and cooperating with others in the organisation to get tasks accomplished. These types of behaviors should lead to cooperation, cohesiveness, and an improved morale at the group level and will positively impact group members' performance. Individuals can also benefit the organisation and work group through their own readiness and preparation to contribute. These behaviors can also include sharing knowledge with others, preparing adequately for job assignments, and proactively addressing work issues. Another way to contribute to the context of work is through actions that affect the tangible resources of the organisation. This can include conserving office supplies, electricity, and preventing theft or waste of organisational resources. Therefore, an individual that helps others, performs their own job well, and effectively utilises organisational resources will contribute substantially to the contextual aspect of their work (Podsakoff *et al.*, 1996; Purvanova, Bono, & Dzieweczynski, 2006; Johari, 2011).

## 2.17. STUDIES ON JOB PERFORMANCE

The results of some studies on job performance show that a number of people believe that life is self-controlled, while others believe their lives are controlled by powers that are external and out of their control (Barrick *et al.*, 2013). There are several important ideas included in these definitions that need to be discussed in order to understand various factors in measuring and categorising this construct.

First, individual job performance is related to behavior. Job performance entails something that people do and can be reflected in the actions individuals take, even though this does not include the consequences or results of those particular actions (Campbell *et al.*, 1993:35; Levenson,

2012). Results, such as sales, turnover and production output, are often mistakenly included as measures of job performance due to their ability to be easily quantified and tracked. While results and outcomes are influenced by individuals, they are often affected by factors outside of the individual's control. For example, market conditions can have a direct impact on sales and profitability despite the efforts and behaviors exhibited by individuals trying to impact those outcomes.

The second important idea included in the definition of job performance is that performance relates to discrete behavioral episodes. Throughout an individual's workday, there exist several opportunities to behave in a manner that impacts on the desired results of the organisation, even though every behavior will not be related to job performance. Therefore, streams of work behavior are punctuated by occasions when people do something that impacts on the organisation's goals (Asiedu-appiah *et al.*, 2014:44). These discrete units of work behavior can be identified by others (Newtson *et al.*, 1977:847; Wilden *et al.*, 2013) and captured using techniques such as job analytic procedures. Job analysis methods collect information about work tasks that have identifiable beginnings and endings that comprise an individual's workday. Information collected from this process can be used to determine skills and abilities required to perform the job or identify new methods to organise work in a more effective manner.

The final point emphasised in the performance definition is that performance refers only to behaviors that are relevant to the organisation's goals. Individuals' behaviors can contribute slightly or substantially to the organisation's goals in a positive or negative manner. Whether a behavior is considered to be favorable or unfavorable to the organisation, depends with the consequences or outcomes of that behavior. This ad hoc judgment implies that the same behavior can result in positive and negative outcomes in different situations. In addition, the valence of a work behavior depends on the expected outcome of the behavior if it were carried out over many occasions by many individuals (Slattery *et al.*, 2010). Therefore, each discrete behavior exhibited by a particular individual at a particular time would not be evaluated to determine its effectiveness. Rather, it is the summed behavior that comprises job performance and its dimensions. This definition, therefore, serve as a framework to discuss the resulting job performance taxonomies and models.

## 2.18. RELATIONSHIPS AMONG SELF-LEADERSHIP, LOCUS OF CONTROL AND JOB PERFORMANCE

Nowadays managers must deal with the globalisation of markets; increasing intensity of competition; rapid technological changes; the shift from an industrial economy to a knowledge, human capital and information based economy; demographic changes; environmental challenges; changing value systems; and consumer preferences, whereby creativity and innovation is necessary for the survival organisations (Cheng *et al.*, 2011). In addition, organisations and leaders should try to create an institutional framework in which creativity and innovation are accepted as basic cultural norms in the midst of technological and other changes. Therefore, leaders of engineering-based organisations must rely on innovative engineers who are self-leaders and possess internal locus of control to create new engineering products and services. This brings us to the increased importance of self-leadership, locus of control and job performance. The importance of the self-leader-locus of control-performance relationship arises from the contribution of followers to the leadership process as followers are integral to the performance of leadership (Verwey, Du Plessis & Van der Merwe, 2013).

Since self-leadership emphasises one's intrinsic motivation to self-influence regarding what, why, and how to perform work (Stewart *et al.*, 2011:185), it can be conceived to directly feed into perceptions about one's capacity to influence his/her work-related outcomes and therefore, improve performance of large organisations. As such, self-leadership is impossible without an internal locus of control and innovation (Adams *et al.*, 2008:109; McDevitt *et al.*, 2007:219). It can be inferred from the aforementioned discussion that a combination of self-leadership and internal locus of control is critical to achieving high job performance for engineers through increased proficiency, adaptation or proactivity and the ability to multi task in the face of competing tasks and work activities.

## 2.19. CONCEPTUALISATION OF SELF-LEADERSHIP, LOCUS OF CONTROL AND JOB PERFORMANCE

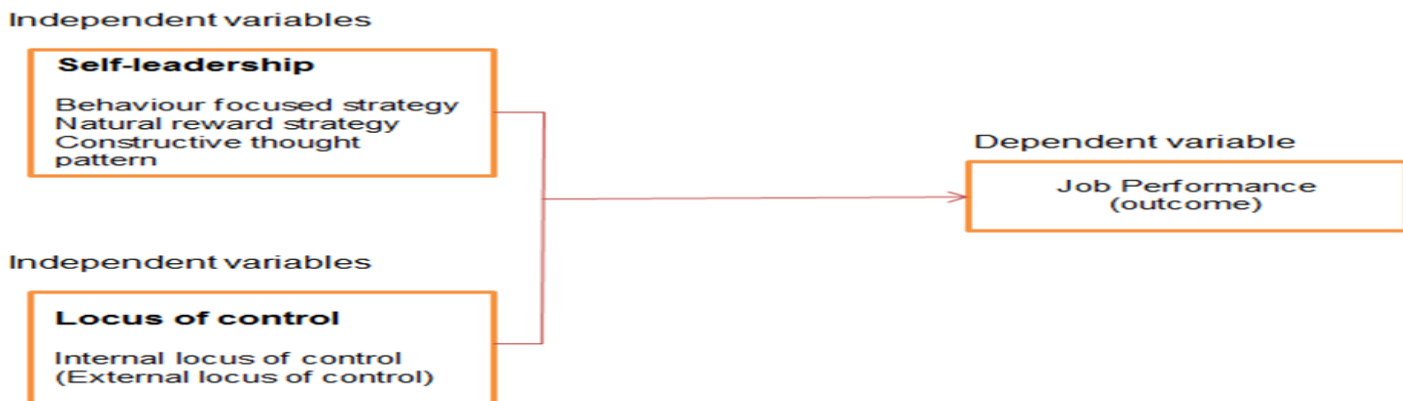


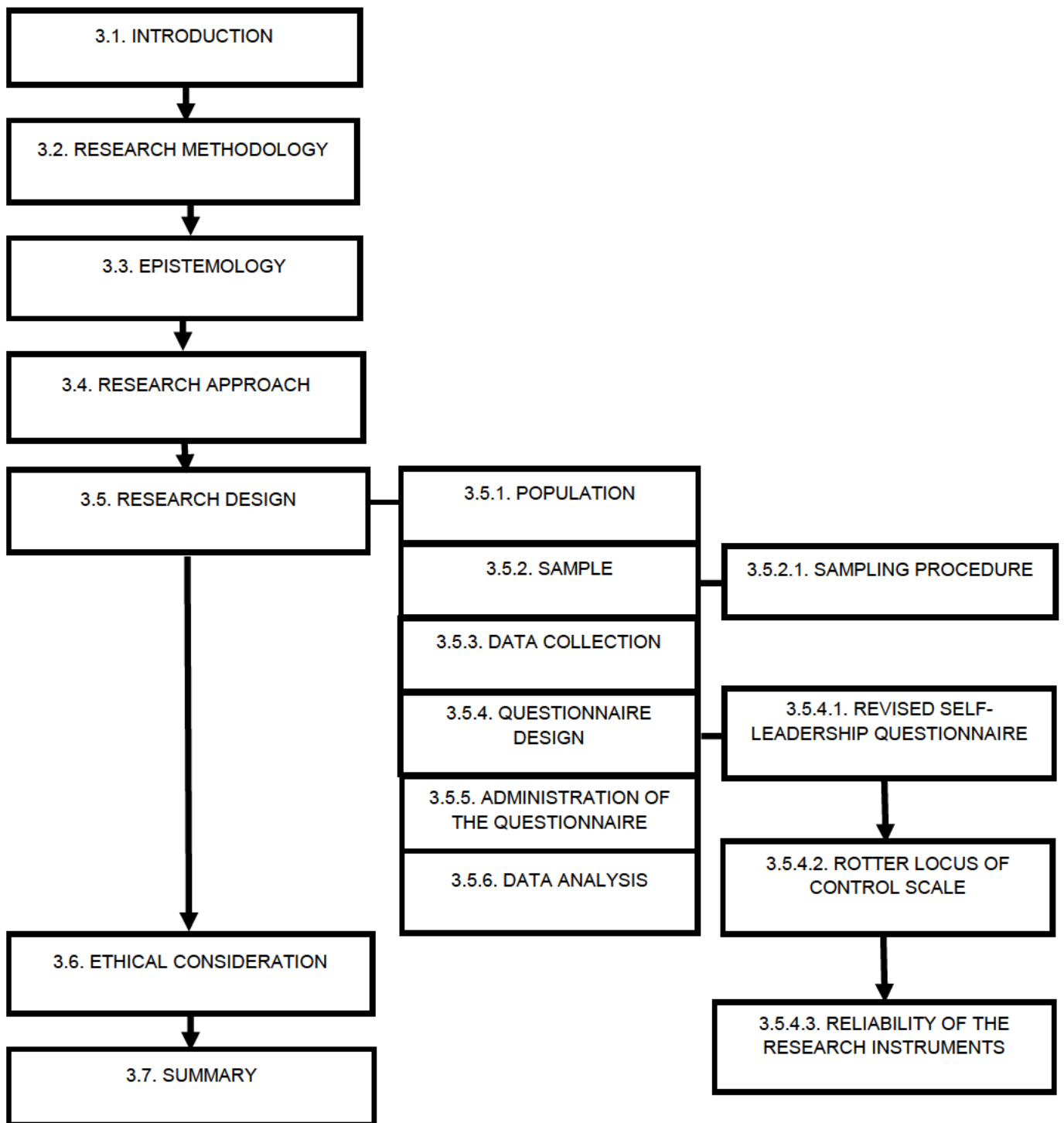
Figure 1: The relationship between self-leadership, locus of control and job performance

As Figure 1 suggests, the relationship between self-leadership, locus of control and performance is of a compound nature. It is a combination of both concepts. While both concepts may have equal strength with regard to their influence on job performance, their individual constitutive components may not necessarily have equal weight. For instance, behavior focused strategies and constructive thoughts patterns seem to have more dominance on job performance than natural reward strategies, while internal locus of control seem to be more powerful for improved job performance than external locus of control. This study argues that rewards are foundational to energising an individual to initiate task execution at the basic level to justify receipt of remuneration, rewards, are nevertheless, not necessary for the sustenance of an optimal success motivation behavior and rather, behavior focused strategies and constructive thoughts patterns do. Collectively conceived, behavior focused strategies and constructive thoughts and internal locus of control seem to shape job performance more than reward strategies and external locus of control, which can be removed with little effect on the job outcomes. That said, these sub-concepts' level and subject operation within the organisation also shape their impact. Our assumption is that internal locus of control can impact more on job performance at the operational levels (engineers) and both internal and external locus of control can be dominant at middle (i.e. middle managers) and senior management (i.e. Eskom Board and top management) levels given their higher interaction with the external environment than the lower levels.

## **2.20. SUMMARY OF THE CHAPTER**

This chapter outlined the different aspects of self-leadership, locus of control and job performance. It defined and explained the dimensions of self-leadership, locus of control and performance outcomes. The conceptual framework developed was based on the three aspects of self-leadership: Behavior oriented strategies, Natural reward strategies (focusing the thought on natural rewards) and Constructive thought pattern strategies, as well as two aspects of locus of control: internal locus of control and external locus of control. Their impact on job performance was also discussed. The next chapter, outlines the research methodology used in this study.

## CHAPTER THREE: METHODOLOGY





### **3.1. INTRODUCTION**

The previous chapter reviewed the literature on self-leadership, locus of control and job performance. This chapter, however, focuses on the research methodology employed in this study. It outlines the research design, the target population, sampling procedure, data collection and data analysis.

### **3.2. RESEARCH METHODOLOGY**

Research in social sciences is underpinned by a set of belief systems which contain critical philosophical assumptions about the ways people view the world. The research process is guided by three major dimensions which are ontology, epistemology and research methodology. Ontological assumptions in research entail an indication of the researcher's preference by specifying what are considered truths about knowledge, information, and the world (Wangombe 2013:943). In general terms, ontology questions what the nature of reality is or one's view of the social world. Thus, it entails an enquiry into beliefs about, the nature of what exists, including whether anything can be said to exist at all. There are two possible worldviews, which are objectivistic and subjectivist, and they represent divergent ontological positions. Therefore, the fact that this study adopts a quantitative stance means that it leans on the objective perspective of the world (Dawson 2009:14).

### **3.3 EPISTEMOLOGY**

Epistemology is the branch of philosophy concerned with whether knowledge construction is possible, and if so, how it can be gained and what its limits are (Wangombe 2013:943). Scotland (2012:9) asserts that epistemological assumptions are concerned with how knowledge can be created, acquired and communicated and, in other words, what it means to know. Thus, it entails the view of how one acquires knowledge and the relationship between the researcher and the researched. Positivist epistemology is employed in this research to examine the impact of self-leadership and locus of control on the performance of engineering workforce stationed at the power distribution utility, Eskom, in Bloemfontein. Positivism holds that the investigator and the investigated are independent and thus, the researcher can study a phenomenon without influencing it or being influenced by it (Denzin & Lincoln 2005: 27). The positivists' objective to

discover absolute knowledge about an objective reality suggests that a positivist epistemology is appropriate for this study, for this study seeks to generate valid knowledge by establishing a logical relationship between self-leadership, locus of control and job performance.

### **3.4. RESEARCH APPROACH**

Research approaches can be classified under the categories quantitative research and qualitative research. A quantitative research strategy is systematic and objective in its ways of using numerical data from a selected subgroup of a population in an attempt to generalise the findings to the universe being studied (Walliman, 2001:7). Similarly, Conrad and Serlin (2011:149) describe quantitative research as deductive in that the inferences from tests of statistical hypotheses lead to general inferences about the characteristics of a population. Qualitative research, however, is characterised by a narrative analysis of information collected in the study (Goodwin, 2002:521). Shaughnessy and Zechmeister (2006:44) argue that qualitative research produces verbal summaries of research findings without any statistical summaries or analysis.

Shaughnessy and Zechmeister (2006:44) argue that the difference between quantitative and qualitative research approaches is that data obtained in qualitative research is commonly obtained through the use of interviews and observations and can be used to describe individuals, groups and social movement. In addition, Leedy (2001:67) argues that quantitative research design allows the researcher to answer questions about the relationships between measured variables – with the purpose of explaining, predicting and controlling certain phenomena. Based on the above definitions, a quantitative approach is considered appropriate given that the desire of the researcher is to explain the relationship between self-leadership, locus of control and job performance.

### **3.5. RESEARCH DESIGN**

A research design can be defined as a framework or blue print for conducting a business research project in an efficient manner. It details the procedures necessary for collection, measurement and analysis of data, which helps the researcher to structure or solve business research problems (Sreejesh, Mohapatra, & Anusree, 2014:25). A survey approach was adopted in this study to explore the Eskom engineers' perceptions on the importance of being a self-leader and having

internal locus of control to the success of their business. This study solicits the responses of a large group comprising engineers, technologists and technicians at Eskom, Bloemfontein, hence, a survey approach was deemed appropriate for the study as it is an efficient and systematic method of collecting data from a broad spectrum of individuals and educational settings.

A survey design is appropriate for this study due to its descriptive nature. A descriptive study is one in which data is collected without changing the environment (i.e., nothing is manipulated), and it is sometimes referred to as a “correlation” or “observational” study (Bryman & Bell, 2007:34). Descriptive studies are usually ideal for collecting information that demonstrates relationships and describe the world as it exists (Singh & Nath 2010:250). Since this study attempts to test the relationship between variables identified in the conceptual framework (see Section 1.5 of Chapter 1), a survey is ideal for exploring these relationships. A survey approach is certainly appropriate since the study sought to explain relationship between self-leadership, locus of control and performance of the employees of Eskom’s Bloemfontein power distribution utility.

### 3.5.1. POPULATION

A study population is the total number of people, groups or organisations that can be included in a study (Naicker 2008:44). It represents the collection of all units of analysis (Welman, Kruger & Mitchell, 2005:52). The population of this study was 134 full-time engineering workforce (N=134) from the departments where the study was carried out. This comprised the total number of engineers, technologists and technicians in the employ of Eskom, Bloemfontein at the time of this current investigation.

### 3.5.2. SAMPLE

A ‘sample’ is a subset of the population that forms part of the investigation, and in quantitative research, the research results obtained from the sample must be generalised to the entire population (Mouton, 2002:166, Kumar, 2011:193). It is, therefore, crucial that a sample is representative of the entire population – failure of which the results obtained will not reflect the population and can, therefore, not be regarded as trustworthy (Welman *et al.*, 2005:55). Generalisability is thus an important consideration in quantitative research – as meaning can be

attached to the population beyond the limited setting in which the research took place (Salkind, 2006:91). In addition, sampling involves decisions about which people to observe or interview, settings, events and social processes (Naicker, 2008:44). As mentioned earlier, the population of the study was 134 graduate engineers, technologist and technician, and given the small size of the population of engineers, technologists and technicians at Eskom, Bloemfontein, census involving all members of this workforce, was considered. Out of the 134 full-time graduate engineers, technologists and technicians, 107 successfully completed the survey questionnaire (n=107), thus representing 80% of the total population.

### 3.5.2.1. Sampling procedure

In view of the small population considered, a census was adopted. A census is considered appropriate when the entire population is very small or it is reasonable to include the entire population. The census sought to include everybody in a population rather than a fraction (Grim *et al.*, 2010). Of the 134 engineering workforce, there were 30 full-time graduate engineers, ii) 34 technologists; and iii) 70 technicians. And of the 107 employees who successfully completed the questionnaire, there were 29 graduate engineers, 28 technologists and 50 technicians.

### 3.5.3. DATA COLLECTION

Data is “information obtained during the course of an investigation or study” (Mbambo, 2005:40) for the purpose of analysis and in order to produce credible results. A letter requesting permission to conduct the study at Eskom was written by the main supervisor and the researcher and addressed to Eskom Bloemfontein (Networking Engineering Manager). An appointed was secured between the researcher and the manager to explain the main aim and purpose of her study at Eskom. In October 2015 the researcher received a letter of consent to conduct the study at Eskom and an ethics clearance that gave confirmation of intellectual property rights for masters research for the purpose of establishing what constitutes normative practice in data monetisation was forwarded to the researcher to conduct her research at Eskom with the period of five months (November 2015- March 2016). The researcher immediately made an appointment to meet with all engineering workforce at Eskom Bloemfontein to distribute the research questionnaire with the assistance of the site’s engineering manager. Questionnaires were collected weekly from the manager for three weeks.

A self-administered structured questionnaire was used to collect data for this study. Since engineering workforce at Eskom Bloemfontein are the one who know the high voltage side of their business the questionnaires were thus administered to them. Questions were asked based on the Likert scale and they were asked in such a way as to cover aspects of the research problem and research questions. Questionnaires were handed to the participants by the researcher personally. By handing questionnaires to the participants, the researcher was able to interpret questions to participants who did not understand some of the issues at stake. Nachmias and Nachmias (2000:103) define a questionnaire as “a list of questions that must be formulated, constructed and sequenced to produce the most constructive data in the most effective manner”. The non-disclosure agreements – compromising participants’ confidentiality and deceiving people who take part in the research process was not violated. The rights of the participants were considered and protected, their privacy was respected, hence, they had an option of disclosing or not disclosing their identification. The purpose of the study was explained to participants and interactions with participants were conducted in the workplace. It should also be underscored that the participants’ consent to take part in the research study was sought ahead of time. Lastly, the researcher tried not to be biased by not drawing incorrect conclusions as well as using an appropriate methodology. Respondents were also informed that the information sought was solely for research purposes only.

### 3.5.4 QUESTIONNAIRE DESIGN

The question consisted of three parts. These were: The cover page that detailed the rationale for the study, Section A-which comprised demographic data, Section B, which comprised self-leadership and Section C which emphasised locus of control concepts and job performance. With regards to self-leadership, questions were drawn from the Revised Self-leadership Questionnaire (RSLQ) (Houghton *et al.*, 2012). Questions in this part of the questionnaire were split between those relating to *Behavior focused questions* focusing on self-goal setting, self-reward, self-punishment, self-observation and self-cueing; and *Constructive thought questions* focusing on visualising successful performance, self-talk and evaluating beliefs and assumptions. Natural rewards questions focused on natural rewards. On the concept of locus of control, questions were drawn from the Rotter's Locus of Control Scale (1966). These questions were divided into two dimensions: Internal locus of control and external locus of control and relational questions: focused on the relationship between internal locus of control and job performance.

#### 3.5.4.1. Revised Self-Leadership Questionnaire

Anderson and Prussia (1997) developed the first Self-Leadership Questionnaire (SLQ) that consisted of 50 items. However, reliability and validity became severe problems with this version of the SLQ (Houghton, Dawley, & DiLiello, 2012). Houghton and Neck (2002) revised the SLQ by deleting and rewriting insignificant questions. They developed the Revised Self-Leadership Question (RSLQ) that consists of nine factors: behaviour-focused strategy, natural reward strategy, constructive thought pattern strategy, self-goal setting, self-reward, self-punishment, self-observation, self-cueing, and focusing thoughts on natural rewards, which were adopted in my study. Houghton and Neck (Year) found that , “Based on the results of both the exploratory and confirmatory factor analysis, the RSLQ is a fairly reliable and valid measurement instrument that effectively reflects self-leadership theory in the assessment of self-leadership skills, behaviours, cognitions” (p. 685). The development of these instruments helped develop the scale used in the current study, as it was updated by literature to accommodate the context of the study. The facets were measured on a five-point Likert-type scale that ranged from 1 (Strongly disagree) to 5 (Strongly agree). Employees were requested to indicate the extent to which they agree or disagree with the statements regarding themselves.

#### 3.5.4.2. Rotter's Locus of Control Scale

A variety of scales have been used in research on locus of control, but Rotter’s scale remains the predominant one (Ng, Sorensen, & Eby, 2006). Rotter’s scale consists of 23 pairs of questions that test the degree of internality or externality of the respondent’s locus of control. It has been used in research on coping with stress (Dijkstraa, Beersma, & Evers, 2011; Khan, Saleem, & Shahid, 2012), conflict management and problem-solving approaches (Dijkstraa, Beersma, & Evers, 2011), attitudes to health (Wu *et al.*, 2004; Jacobs-Lawson, Waddell, & Webb, 2011), learning dispositions and performance (Özen Kutanis, Mesci, & Övdür, 2011), knowledge practices (Karkouliaian & Mahseredjian, 2012) and ethical behaviour (Suryaningrum, Hastuti, & Suhartini, 2013).

The Rotter's Locus of Control Scale questionnaire (Rotter, 1966) was used in this study. The questionnaire measures two constructs, which are internal locus of control and external locus of

control. These constructs were measured on a five-point Likert scale consisting of Strongly disagree (1), Disagree (2), Neutral (3), Agree (4) and Strongly agree (5).

### 3.5.4.3. Reliability of the research instruments

Self-leadership variables were constructed from the questionnaire and these are self-leadership (overall); and its components, which are *behavior focused variables*, *natural rewards*, and *constructive thought variables*. The components of *behavior focused strategies* are self-goal setting, self-reward, self-observation, self-cueing and self-punishment, and the components of *constructive thought strategies* are self-talk and evaluating beliefs and assumptions.

Given that the development of these variables involved summing up responses of the relevant questions, a reliability test had to be done to test whether or not the variables are reliable. A Cronbach's alpha coefficient was used to test if the constructed were reliable. This Cronbach's alpha coefficient determines the reliability of the scale used as well as test whether or not the items used for a variable actually measure that particular construct. The results are presented in Table 3.1.

**Table 3.1: Reliability test for self-leadership**

Variables	Cronbach's Alpha	Number of items
<b>SELF-LEADERSHIP</b>		
<b>Behaviour focused (components)</b>		
Self-goal setting	0.740	5
Self-reward	0.881	3
Self-observation	0.856	4
Self-cueing	0.882	3
Self-punishment	0.805	6
Behaviour focused (overall)	0.744	21
<b>Natural rewards</b>		
Natural rewards	0.695	4
<b>Constructive thought (components)</b>		
Self-talk	0.884	2
Evaluating beliefs and assumptions	0.748	3
Constructive thought (overall)	0.798	5
Self-leadership (overall)	0.810	30



All the components of self-leadership have a Cronbach’s alpha coefficient that is above 0.6 which means that these variables are reliable and can be used for further statistical analysis.

The averages and percentages of self-leadership and its components were calculated and the results are presented in Table 3.4. The means and standard deviations of self-leadership on each of the items are presented with the frequencies in Table 3.2.

**Table 3.2: Mean percentages of self-leadership**

<b>Variables</b>	<b>Mean</b>	<b>Mean %</b>
<b>SELF-LEADERSHIP</b>		
<b>Behaviour focused (components)</b>		
Self-goal setting	21.24	84.97
Self-reward	10.58	70.53
Self-observation	16.75	83.74
Self-cueing	11.42	76.14
Self-punishment	20.09	66.98
<b>Behaviour focused (overall)</b>	<b>80.08</b>	<b>76.27</b>
<b>Natural rewards</b>		
Natural rewards	16.56	82.80
<b>Constructive thought (components)</b>		
Self-talk	7.62	76.17
Evaluating beliefs and assumptions	11.65	77.69
<b>Constructive thought (overall)</b>	<b>19.27</b>	<b>77.08</b>
<b>Self-leadership (overall)</b>	<b>115.92</b>	<b>77.28</b>

The mean percentage of overall self-leadership is 77.28% which is high and above 50%. This means that a majority of these engineers identify highly with self-leadership, that is, they regard themselves as self-leaders. Self-leaders tend to identify with taking greater responsibility for their own job tasks and career development (Sturges, Conway, & Liefoghe, 2010:118). Engineers with high levels of self-direction and self-influence could respond more effectively to the dynamic changes of organisation structures and environments (Brown & Fields, 2011:277).

With reference to the components of self-leadership, the mean percentages are all above 70%, which indicates that these are important factors for the respondents. This value implies that a majority of these respondents are behavior focused, they focus on natural rewards and also engage in constructive thinking. Self-goal setting has the highest mean percentage of 84.97%,



followed closely by self-observation with a mean percentage of 83.74% on the ranking of components of behavior focused leadership.

The third highest component is self-cueing with a mean percentage of 76.14% and then self-reward with a mean percentage of 70.53%. Lastly, self-punishment has the lowest mean percentage of 66.98%. This indicates that a majority of the respondents are self-goal setters, then self-observers, self-cuers, self-rewarders and lastly self-punishers. This finding resonates with Ho and Nesbit's (2014:393) view that these strategies operate within the framework of Bandura's (1986) social learning theory, which argues that a person's behaviour is influenced by both external environmental factors and their self-regulation processes. Based on the premise of social learning theory, Manz and Sims (1980) delineated various self-management strategies such as self-goal setting, self-observation, self-reward, self-punishment, and self-cueing (Manz, 1986; Neck & Manz, 2010) that are used by individuals to manage their goal-striving behaviours.

The components of constructive thought, evaluation of beliefs and assumptions have a higher mean percentage (77.69%) than self-talk (76.17%). This means that the majority of the respondents are more evaluators of beliefs and assumptions than self-talkers. The evaluation of self-beliefs is critical to help one recognise one's dysfunctional thinking and destructive beliefs as well as in learning to challenge these beliefs and replace them with more constructive thoughts (Ho & Nesbit, 2014:394). A number of scholars also argue that individuals who utilise constructive-thought self-leadership strategies to eliminate dysfunctional, negative thoughts are more likely to experience job satisfaction (Neck & Manz, 1996, Houghton & Jinkerson, 2007).

Locus of control variables were constructed in order to determine whether or not locus of control has an influence on job performance. The locus of control variables (or constructs) that were created from the questionnaire are internal locus of control, external locus of control and overall locus of control. Given that the creation of the locus of control variables involves summing up responses of the relevant questions, a reliability test had to be done to test whether or not the variables were reliable. A Cronbach's alpha coefficient was used to test if the variables constructed are reliable. The Cronbach's alpha coefficient is used to test whether or not the items used for a variable actually measure that particular variable/construct. The results are presented in Table 3.3.

**Table 3.3: Reliability test (Locus of control)**

Variables	Cronbach's Alpha	Number of items
<b>LOCUS OF CONTROL (LoC)</b>		
<b>Internal LoC</b>	0.706	15
<b>External LoC*</b>	0.434	7
<b>Locus of control (overall)</b>	0.688	22

Note: \* - dropped from further analysis because of a low Cronbach's alpha

Although reliability guidelines vary from researcher to researcher, a Cronbach's alpha value above 0.6 is generally considered to indicate a reliable variable. The internal locus of control and overall locus of control variables have a Cronbach's alpha coefficient that is above 0.6. This implies that these variables are reliable and can be used for further statistical analysis. However, external locus of control has a Cronbach's alpha coefficient, that is, below 0.6. This means that the variable is an unreliable measure of external locus of control. Therefore, this variable was dropped from the analysis that follows because of a low Cronbach's alpha.

The averages and percentages of the internal locus of control and overall locus of control variables were calculated and the results are presented in Table 4.4 below. The means and standard deviations of each of the items are presented with their frequencies in Tables 3.4.

**Table 3.4: Descriptive statistics**

Variables	Mean	Mean %
<b>Internal Locus of control</b>	58.41	77.88
<b>Locus of control (overall)</b>	76.02	69.11

The mean percentages of internal locus of control and overall locus of control are 77.88% and 69.11%, respectively. These measures are all high and above 50%. This means that a majority of these engineers identify highly with the locus of control. The positive identification with locus of control has a potential to impact on job performance and job satisfaction of employees in an organisation. Mali's (2013) study on locus of control and its impact on employees' performance reveals that workers' consciousness about locus of control on their job and the job environment impacts positively on their job performance. This study also reported that advisors should go beyond the work-related areas and help their employees to improve and understand how their perceptions of self and their environment may shape their performance at work.

### 3.5.5. ADMINISTRATION OF THE QUESTIONNAIRE

The questionnaire was administered among engineers by the researcher. The data collection process began with the researcher seeking permission from Eskom management to conduct the study. After permission had been granted, the researcher met with the engineering management team to discuss the research objectives, its expected benefits, and to introduce them to the draft copy of the questionnaire.

Appointments were also made with respondents in order to leave the questionnaires with the respondent and these were later collected on an agreed day. The data collection process took place over a period of one month and two weeks because the respondents complained of not having time to complete questionnaires due to workload even though appointments were made well in advance. A hundred and thirty four (134) questionnaires were distributed to the respondents and only a hundred and seven (107) were returned, which gave an 80% return rate.

### 3.5.6. DATA ANALYSIS

A quantitative approach was used to analyse data for this research. Babbie and Mouton (2005:646) define quantitative analysis as the numerical representation and manipulation of observations for the purpose of describing and explaining the phenomena that the observations reflect. Statistical techniques were used to enable generalisations of the research findings. These included descriptive statistics and inferential statistics. Descriptive statistics were used to summarise the responses to the survey questions. These include frequencies, measures of central tendency (the mean, median and mode) and measures of variation (range and standard deviation). According to Goodwin (2002:516), descriptive statistics provide a summary of the main features of a set of data collected from a sample of participants (see specific details of the descriptive statistics in the next chapter). Inferential statistics such as Spearman's rho correlation coefficient and Regression equations were also used to test the relationship between self-leadership, internal locus of control and job performance. According to Gray (2007:335), inferential statistics enable a researcher to make appropriate inferences from descriptions, in order to decide whether the descriptions can also be applied to the population from which the sample is drawn. Mann-Whitney U tests and Kruskal-Wallis tests were used to determine statistical significance of different variables. A Cronbach's alpha coefficient was used to test if the variables constructed are reliable. For further analysis of these variables, a test to determine

whether or not the variables are normally distributed was done. These techniques are regarded as appropriate because the data is ordinal in nature.

### **3.6. ETHICAL CONSIDERATIONS OF THE STUDY**

There are numerous ethical issues that researchers encounter during the various stages of a research project. De Vos, Strydom, Fouche and Delport (2011:114) define research ethics as a set of moral principles subsequently and broadly accepted – which offer rules and behavioral expectations about the correct conduct towards experimental subjects and respondents.

Conducting a research is considered as an ethical enterprise (Stuwig & Stead, 2001:66). It is imperative that moral behaviors be considered upon conducting a research. Since the data acquired for research purpose from different sources is of utmost importance, humans should be respected and the information gathered be treated with equal dignity. Aspects considered in this research study are: (1) Objectivity – careful planning of the study during the design stage, proper referencing of quoted sources, avoiding low- priority probing of sensitive issues and not revealing any confidential information regarding participative cases; (2) The non-disclosure agreements – compromising participants' confidentiality and deceiving people who take part in the research process were not violated; (3) The rights of the participants, which were considered and protected, and privacy respected, hence they had an option of disclosing or not disclosing their identification; (4) The purpose of the study, which was explained to participants; (5) Interactions with participants were conducted in the workplace – participants' consent to take part in the research study was sought ahead of time, and lastly (6) the researcher tried not to be biased by not drawing incorrect conclusions as well as using appropriate methodology. The respondents were also informed that the information sought was solely for research purposes.

### **3.7 SUMMARY**

This chapter discussed the research methodology of the study. The study adopted a quantitative research design and a questionnaire was used to collect data from the respondents. Inferential statistics such as Pearson correlations were used to determine relationships between the variables in the study. The next chapter presents the analysis, results and discussion on the findings of the study.

## **CHAPTER FOUR: PRESENTATION, INTERPRETATION AND DISCUSSION ON FINDINGS**

### **4.1. INTRODUCTION**

The previous chapter presented the methodological foundation of this study, which translated the theoretical articulation of the combined effects of self-leadership (SL) and locus of control (LC) on job performance (JP) into their practical inquiry in the engineering and technical context of a publicly owned utility, Eskom in Bloemfontein. In this chapter, therefore, the detailed research findings on relationships between these concepts (i.e. SL, LC, and JP) and their respective interpretation is presented and interrogated further. The purpose of this chapter is twofold: Firstly, to present the research results of the data analysis, and secondly, to discuss these results drawing on mainstream literature treating these distinct concepts.

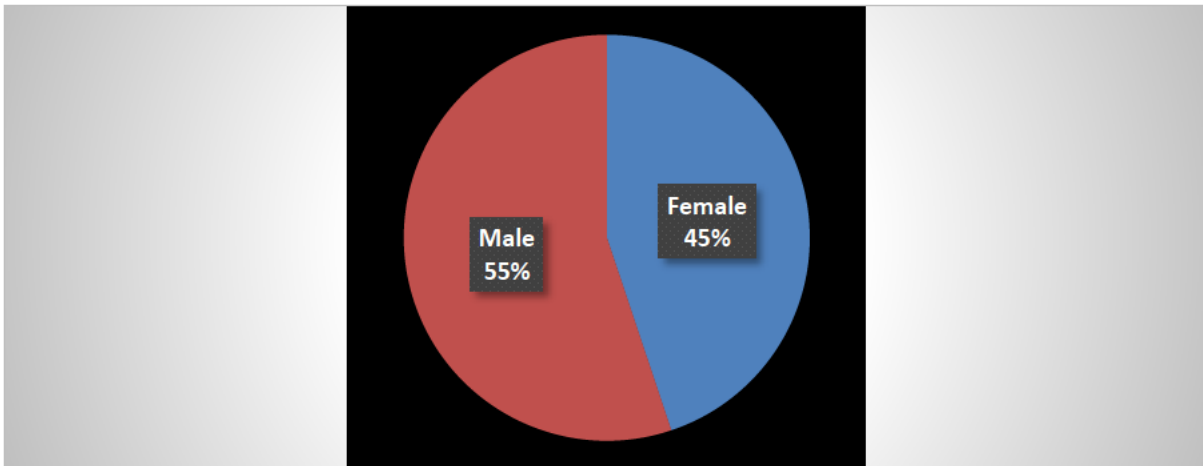
### **4.2. RESPONSE RATE**

Out of the 134 questionnaires distributed by the researcher to the technologists, technicians and engineers at Eskom, Bloemfontein, 107 of them were correctly filled in and returned the questionnaires, thus representing a response rate of 79.8%. According to Bryman and Bell (2011:236), a response rate below 50% is not acceptable, hence the response rate of this study (80%) is considered adequate for data analysis. Considering that our 134 sample was drawn out of a target population of 107, the response rate (based on the targeted sample) can be considered duly legitimate for making generalisations about the entire population at Eskom, Bloemfontein. Mindful of Bavdaz, Drnovsek and Dolinar's (2009:190) claim that achieving a higher response rate maybe be easier when surveying large business population, the 79.8% response rate for this study is, hence, deemed acceptable.

### **4.3. DEMOGRAPHICS**

This section provides an overview of the demographic profile of the sample. The demographics information is constructed along the gender, age group, and educational levels of the respondents. Information regarding the ethnicity, job occupation, hierarchy, marital status, and years of experience of respondents was also gathered in this section.

## Respondents' gender

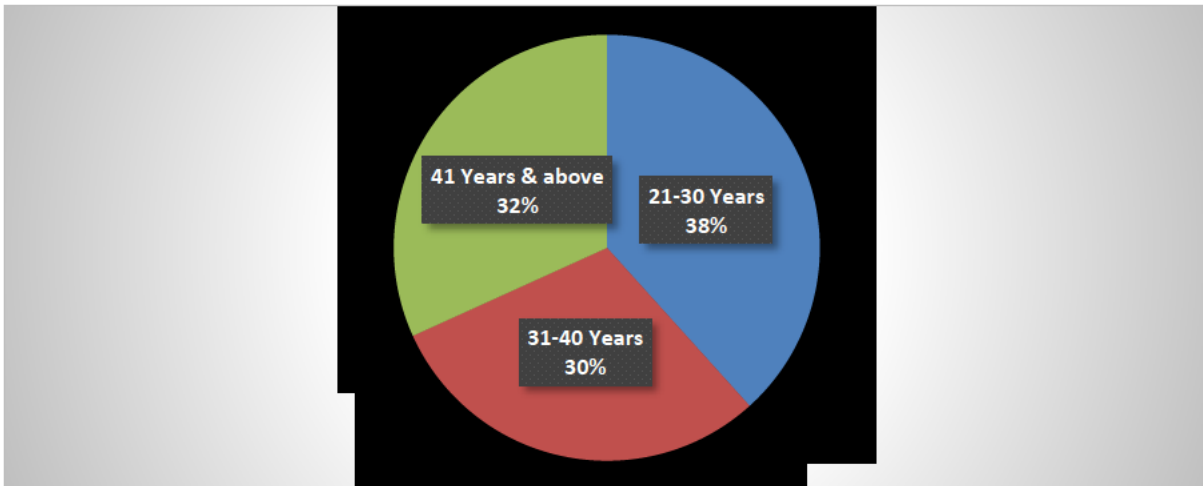


**Figure 4.1: Gender of respondents**

Figure 4.1 illustrates that a majority (55%) of the respondents were male, whilst 45% were female. The moderate dominance of males over females could be attributed to the higher levels of exposure and participation of males in Science, Technology, Engineering and Mathematics (STEM) subjects at high school and university compared to their female counterparts. Since the courses enrolled and successfully accomplished in secondary and post-secondary education normally define the career paths of students, it would be expected that more males' orientation towards STEM subjects, positions them better and increases their chances of landing in the engineering professions than females. A study conducted by Science & Engineering Indicators (2014) on major developments in international and USA science and engineering (S&E) revealed that engineering remains a male-dominated field as indicated by a gender gap of 87% in favor of males. The same report notes that the fact that the gender gap among engineers in international and USA sectors is somewhat widening and buttressing further the view that engineering remains a male dominated industry. This view is also supported by Beede (2011) who laments the under-representation of women in math, science and engineering fields. These choices of subjects have clear implications for the career paths that women take in their post-secondary or post university life. Therefore, the career choice to become a technician or an engineer may be a direct consequence of the scientific literacy and technical knowledge acquired from his/her participation in STEM disciplines (Ong, Wright, Espinosa & Orfield, 2011; Ceylan & Ozdilek, 2015)



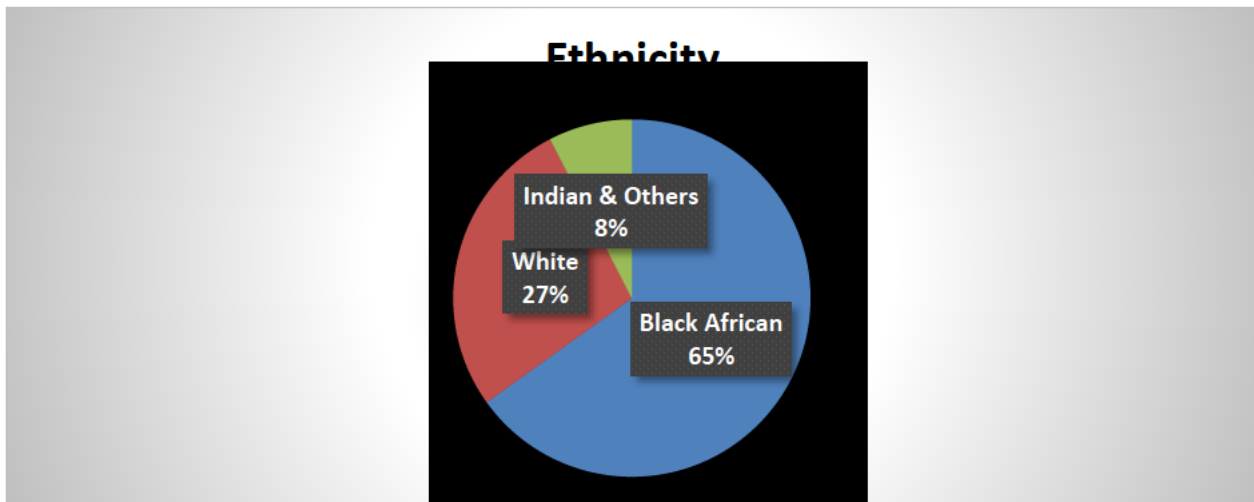
## Respondents' age



**Figure 4.2: Age of respondents**

Based on Figure 4.2, there is a moderate balance in the three age groups of Eskom's engineering work force, which comprises technicians, technologists and engineers. About 38% of this engineering work force is a youthful population aged between 21-30 years, and this group is closely followed by the 41 and above age group, which comprises 32%. The 31-40 group has the lowest percentage (30%). It can be inferred from these demographics that, while there is a balanced representation of various age groups in the engineering workforce at Eskom, Bloemfontein, all the respondents belonged to the economically active population. The collective dominance of the economically active population in the engineering profession is reflective of the expansive population structure of South Africa, which is dominated by a moderately youthful groups. This view is supported by the South Africa Country Report for the 2014 Ministerial Conference on Youth Employment which states that South Africa is a youthful country where almost 67% of the population is made up of young people and a third of the working age population is made up of youth. Statistics South Africa's (2015) Mid-year population estimates report that while the population of the younger than 15 years comprises 30.2% of the national population, collapsing the ages to get a collective picture reveals that the 15-44 years age groups constitutes the majority of the population (over 30 million of the 54.9 million total population). Other studies also affirm that most people who are employed in the South African labor market are mostly the economically active groups (Malo, 2015:72, Mosweunyane, 2013:67).

## Respondents' ethnic background



**Figure 4.3: Ethnicity of respondents**

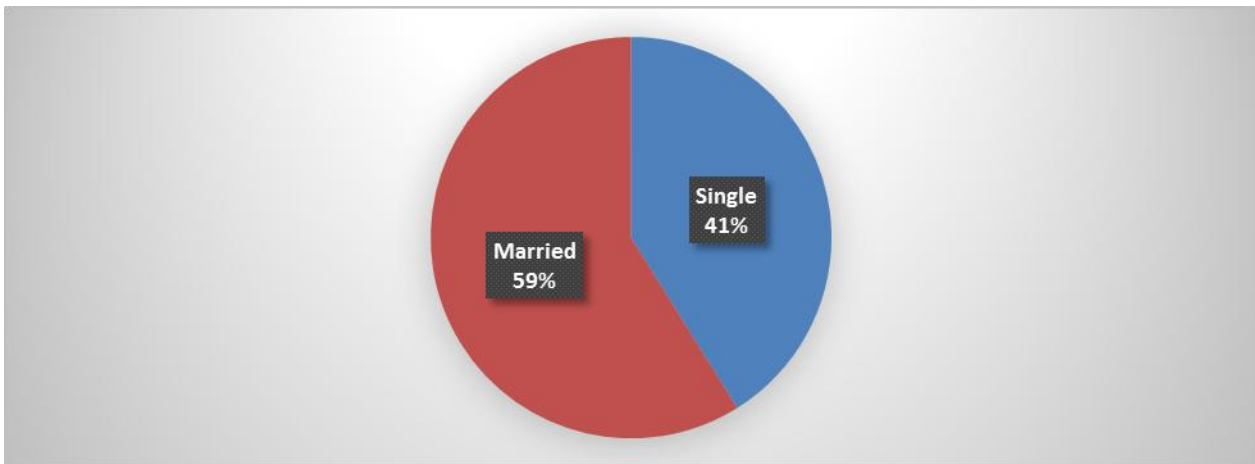
Figure 4.3 demonstrates that 65% of the respondents were black Africans, 27% were white, and 8% were Indians and other minority groups<sup>1</sup>. A synopsis of these results shows that Eskom had more black African technicians, technologists and engineers than any other race at the time of the study. Apart from the Black Africans who constitute the majority of the Eskom engineering workforce consistent with the South African national demographic profile (where black Africans constitute 80.5%), the demographic composition of Eskom engineering workforce is generally inconsistent with the national demographic profile, which locates the colored population at 8,8%; whites 8.3% and, Indians & Asians (see South African National Census 2011).

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<sup>1</sup> We understand that although these racial categories are heavily contested, they remain the historically legitimate racial identity markers in South Africa. Our employment of these racial categories does not in any way signify our acceptance of these racial categories as appropriate to the population/sample described but rather constitutes our acknowledgement that there are no alternative, known ways of racial classification used in the country.



## Marital status of respondents



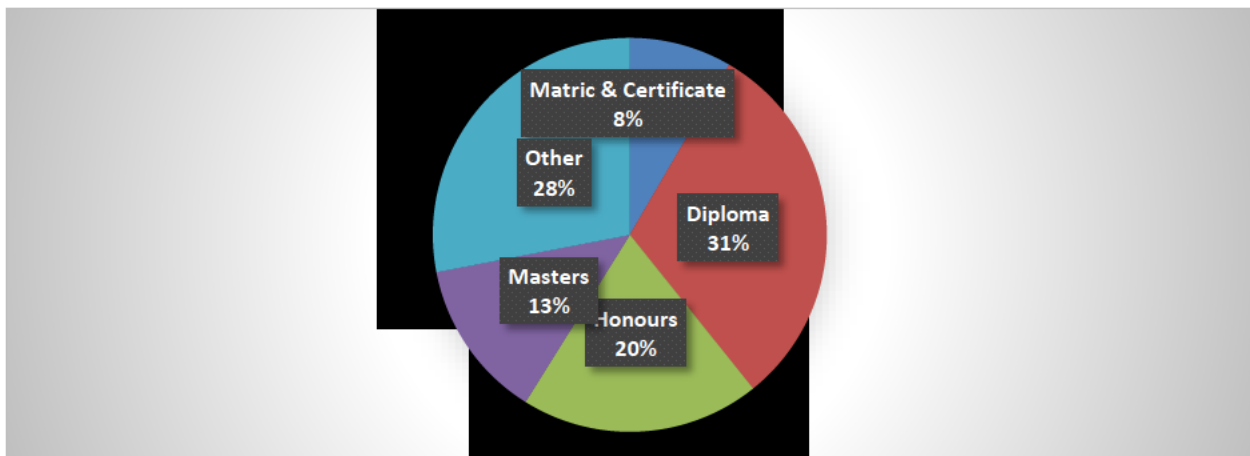
**Figure 4.4: Marital status.** \*- combined Never married, Divorced/separated and widowed and named it Single. This is for more plausible comparability for marital status groups

Figure 4.4 indicates that 41% of the respondents were never married, divorced/separated or widowed and 59% were married. There are two possible explanations for the moderately high rates of single engineers. Firstly, an inference from the demographic representation of technicians, technologist and engineers at Eskom, Bloemfontein, demonstrates that the engineering divisions in this company are dominated by the lower occupations (i.e. technicians, technologists) (see Table 4.6). Hence, it can be assumed that a sizable number of participants were appointed early in their careers, when they were young and unmarried. The Population Council (2010) argues that young women tend to marry at younger ages than men. The median age at marriage among males aged 18 and above is 25, compared to 19 among their female counterparts. Twenty-five percent (25%) of currently married female youth aged 25–29 are married before the age of 18, compared to only 2 percent of male youth. Early marriage is particularly prevalent among rural girls and girls with low educational attainment.

If the percentage of 41% for singles is dominated by divorced/separated, it could be consistent with the considerably high divorce rate in South Africa, where 1 in every couples are reportedly divorcing and 1 in every married couples are separating. Marriage and divorce statistics (2012) show that 4 432 (20.1%) of the 2012 divorce cases were from marriages that were solemnised by religious rites and 16 629 (75.6%) by 'civil' rites. In comparison, the marriages that are eventually dissolved are mostly solemnised by civil rites, which also follows from the fact that most marriages are solemnised by 'civil' rites. A similar pattern was also found among all population groups, although the magnitude differs. Over 90% of divorces for the black African

(91.2%) and the colored (91.9%) population groups were solemnised by 'civil' rites, compared to 87.2% for Indians/Asians and 50.5% for the white population groups. Perhaps the intellectual investment and mental effort required of the technology and engineering jobs complicate their incumbents' work life balance, exerting severe strain and tensions in marriages leading to separations and ultimately to divorce. Oosthuizen (2014) argues that severe strain and tensions in marriages lead to separations and divorce as well other issues such as empowerment, role confusion, financial independence, fewer stigmas, change in society and culture and no children. The moderate dominance of the married participants could suggest that while divorce rates are generally high, there is also a sizable number of resilient marriage unions of technicians, technologists and engineers, which have persisted for a long time. Psychology Statistics (2012:1) reveal that the occupations with the lowest divorce rates (of less than 10%) mostly seem to be engineers.

#### Educational level of respondents

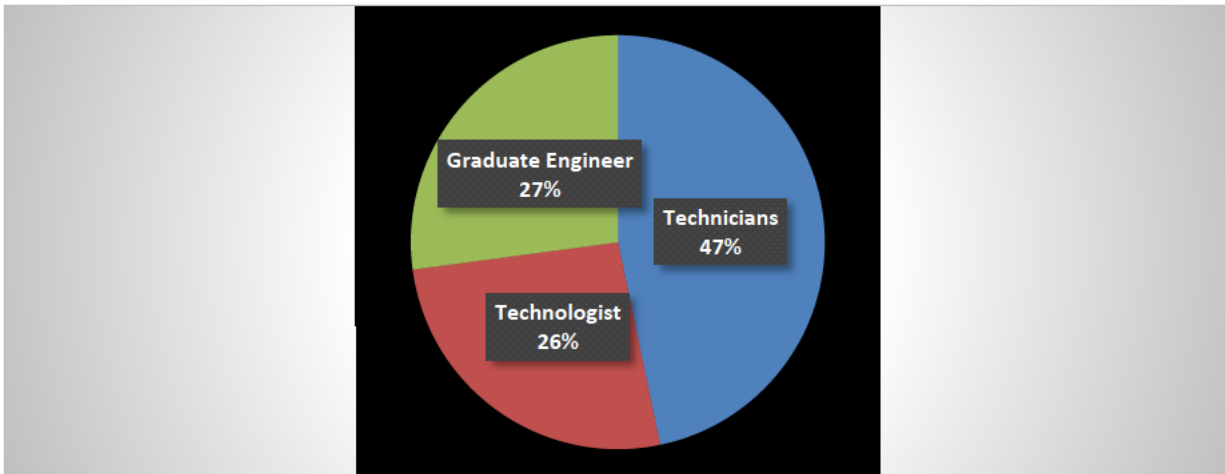


**Figure 4.5: Educational level of respondents**

Figure 4.5 illustrate a variety of qualifications across the sample. A sizable number (31%) of the respondents had diplomas, 28% have other qualifications, while 20% have honors degrees and a further 13% have master's degrees. This finding coheres with the recruitment and appointment regulations for lower jobs at Eskom, where although having a higher qualification is considered desirable, the successful performance of many lower technical occupations may not necessarily require postgraduate qualifications. The statistics reveal that the majority (79%) of employees in the engineering divisions at Eskom, Bloemfontein, do not have postgraduate and in particular Master's degrees. These are inconsistent with those reported in the National Engineering Skills survey, a cross organisational study conducted by the Engineering Council of South Africa for the

2013-2014 period. The survey established that the majority of respondents (61.1%) had a university degree in Engineering as a first qualification. Since their survey was conducted across organisations and not necessarily at Eskom, Bloemfontein, the picture on engineering degrees might be reflective of other organisations and does not resonate with that the engineering divisions at Eskom, Bloemfontein.

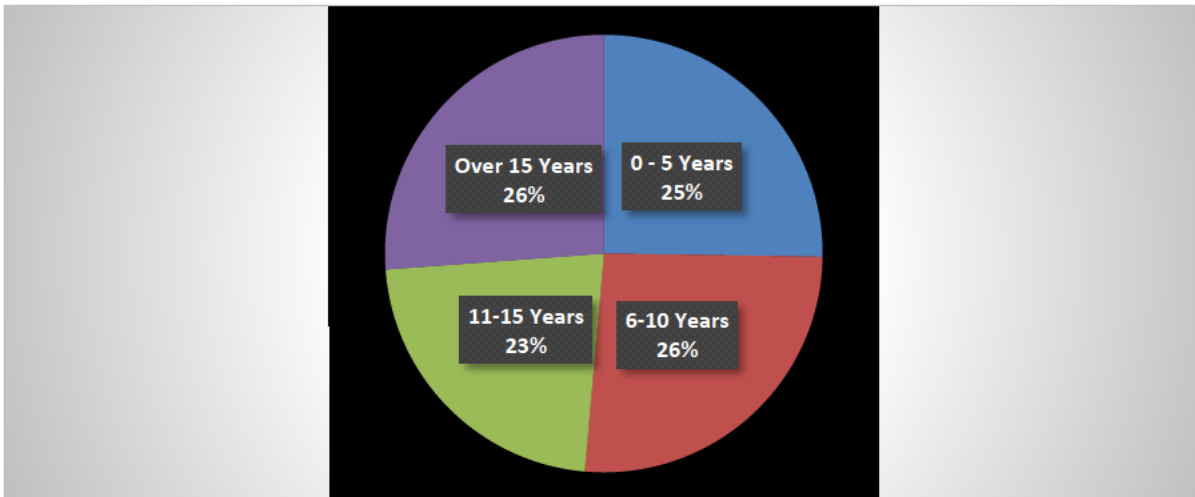
#### Engineering hierarchy of respondents



**Figure 4.6: Engineering hierarchy of respondents**

Figure 4.6 illustrates that 47% of the respondents are technicians, with 27% being graduate engineers and small percentage of 26% are technologists. Since becoming an engineer requires a university engineering degree, while appointment as a technician or technologist requires a lower qualification, it is clear that lower educational attainments (certificates and diplomas) are less intellectually demanding than a degree in engineering. Writer (2015:1) highlights that higher academic qualifications are more difficult to obtain than lower ones due to the considerable academic work and time invested to accomplish them, and the high academic requirements that students must first meet in order to be admitted.

## Respondent's year of experience on the job



**Figure 4.7: Year of experience on the job**

Figure 4.7, shows that some 26% of the respondents had been employed by Eskom for over 15 years, 26% for 6-10 years , 25% for 0-5 years and 23% for 11-15 years. The results reflect that there is a balance in the engineering divisions in terms of years of experience of working at Eskom, Bloemfontein. This could mean that the technicians, technologists, and engineers at Eskom employed in different engineering occupation categories /levels remain with Eskom for long durations, judging from those with many experience years of experience in the organisation such as 10 years and beyond. The United State Department of Labor argues that a number of factors that can affect median tenure of workers, include changes in the age profile among workers, as well as changes in the number of hires and separations. In January 2014, median employee tenure (the point at which half of all workers had more tenure and half had less tenure) for men was 4.7 years, thus remaining unchanged from January 2012. For women, median tenure in January 2014 was 4.5 years and still unchanged from January 2012. 30 percent of wage and salary workers among men had 10 years or more of tenure with their current employer, compared with 28 percent for women.

## 4.4. RELIABILITY AND VALIDITY VARIABLE'S AVERAGES

### 4.4.1. LOCUS OF CONTROL CONSTRUCT VALIDITY

Locus of control variables were constructed in order to determine whether or not locus of control has an influence on job performance. The locus of control variables (or constructs) that were created from the questionnaire are internal locus of control, external locus of control and overall locus of control. Given that the creation of the locus of control variables involves summing up responses of the relevant questions, a reliability test had to be done to test whether or not the variables are reliable. A Cronbach's alpha coefficient was used to test if the variables constructed are reliable. The Cronbach's alpha coefficient is used to test whether or not the items used for a variable actually measure that particular variable/construct. The results are presented in Table 4.1.

**Table 4.1: Reliability test (Locus of Control)**

Variables	Cronbach's Alpha	Number of items
<b>LOCUS OF CONTROL (LoC)</b>		
<b>Internal LoC</b>	0.706	15
<b>External LoC*</b>	0.434	7
<b>Locus of control (overall)</b>	0.688	22

Note: \* - dropped from further analysis because of a low Cronbach's alpha

A Cronbach's alpha value above 0.6 indicates a reliable variable (although these guidelines differ from researcher to researcher). The internal locus of control and overall locus of control variables have a Cronbach's alpha coefficient that is above 0.6. This implies that these variables are reliable and can be used for further statistical analysis. However, external locus of control has a Cronbach's alpha coefficient, that is, below 0.6. This means that the variable is an unreliable measure of external locus of control. Therefore, this variable was dropped from the analysis that follows because of a low Cronbach's alpha.

The averages and percentages of the internal locus of control and overall locus of control variables were calculated and the results are presented in Table 4.4 below. The means and standard deviations of each of the items are presented with the frequencies in Tables 4.2.

**Table 4.2: Descriptive Statistics**

<b>Variables</b>	<b>Mean</b>	<b>Mean %</b>
<b>Internal Locus of control</b>	58.41	77.88
<b>Locus of control (overall)</b>	76.02	69.11

The mean percentages of internal locus of control and overall locus of control are 77.88% and 69.11% respectively. These measures are all high and above 50%. This means that a majority of these engineers identify highly with the locus of control. The positive identification with locus of control has potential to impact on the job performance and job satisfaction of any organisation’s employees. A study conducted by Mali (2013) on locus of control and its impact on employees’ performance revealed that workers’ consciousness about locus of control on their job and the job environment impact positively on their job performance. This study also argues that advisors should go beyond the work-related areas and help their employees to improve and understand how their perceptions of self and their environment may shape their performance at work. Work-related and personal mentoring of employees serves as a tool to a healthy attitude towards work, habits, orientation to others, company and competitors. Employees with these characteristics perform better than those without these traits.

#### 4.4.2. SELF-LEADERSHIP CONSTRUCTS VALIDITY

Self-leadership variables were then constructed from the questionnaire and these are self-leadership (overall); and its components are *behavior focused variables*, *natural rewards*, *constructive thought* variables. The components of behavior focused on are self-goal setting, self-reward, self-observation, self-cueing and self-punishment, and the components of constructive thought are self-talk and evaluating beliefs and assumptions.

Given that the creation of these variables involved summing up responses of the relevant questions, a reliability test had to be done to test whether or not the variables are reliable. A Cronbach’s alpha coefficient was used to test if the variables constructed are reliable. This Cronbach’s alpha coefficient determines the reliability of the scale used and test whether or not the items used for a variable actually measure that particular construct. The results are presented in Table 4.3.



**Table 4.3: Reliability test for self-leadership**

Variables	Cronbach's Alpha	Number of items
<b>SELF-LEADERSHIP</b>		
<b>Behaviour focused (components)</b>		
Self-goal setting	0.740	5
Self-reward	0.881	3
Self-observation	0.856	4
Self-cueing	0.882	3
Self-punishment	0.805	6
Behaviour focused (overall)	0.744	21
<b>Natural rewards</b>		
Natural rewards	0.695	4
<b>Constructive thought (components)</b>		
Self-talk	0.884	2
Evaluating beliefs and assumptions	0.748	3
Constructive thought (overall)	0.798	5
Self-leadership (overall)	0.810	30

A Cronbach's alpha value above 0.6 indicates a reliable variable (although these guidelines do differ from researcher to researcher). All the components of self-leadership have a Cronbach's alpha coefficient that is above 0.6, which means that these variables are reliable and can be used for further statistical analysis.

The averages and percentages of self-leadership and its components were calculated and the results are presented in Table 4.4. The means and standard deviations of each of the items are presented with their frequencies in Table 4.4.

**Table 4.4: Mean percentages of self-leadership**

Variables	Mean	Mean %
<b>SELF-LEADERSHIP</b>		
<b>Behaviour focused (components)</b>		
Self-goal setting	21.24	84.97
Self-reward	10.58	70.53
Self-observation	16.75	83.74
Self-cueing	11.42	76.14
Self-punishment	20.09	66.98
Behaviour focused (overall)	80.08	76.27
<b>Natural rewards</b>		
Natural rewards	16.56	82.80

**Constructive thought (components)**

<b>Self-talk</b>	7.62	76.17
<b>Evaluating beliefs and assumptions</b>	11.65	77.69
<b>Constructive thought (overall)</b>	19.27	77.08
<b>Self-leadership (overall)</b>	115.92	77.28

The mean percentage of overall self-leadership is 77.28%, which is high and above 50%. This means that a majority of these engineers identify highly with self-leadership and regard themselves as self-leaders. Self-leaders tend to identify taking greater responsibility for their own job tasks with career development (Sturges, Conway, & Liefoghe, 2010:118). Engineers with high levels of capacity and skills in self-direction and self-influence could respond more effectively to the dynamic changes of organisation structures and environments (Brown & Fields, 2011:277).

The mean percentages related to the components of self-leadership are all above 70%, which indicates that these are important factors for the respondents. This value implies that a majority of these respondents are behavior focused, they place emphasis on natural rewards and also engage in constructive thinking. Self-goal setting has the highest mean percentage of 84.97% on the ranking of the components of behavior focused leadership, followed closely by self-observation with a mean percentage of 83.74%.

The third highest component is self-cueing with a mean percentage of 76.14% and then self-reward with a mean percentage of 70.53%. Lastly, self-punishment has the lowest mean percentage of 66.98%. This is an indication that a majority of the respondents are self-goal setters, then self-observers, self-cuers, self-rewarders and lastly self-punishers. This finding resonates with Ho and Nesbit's (2014:393) view that these strategies operate within the framework of Bandura's (1986) social learning theory, which argues that a person's behavior is influenced by both external environmental factors and individual self-regulation processes. Based on the premise of social learning theory, Manz and Sims (1980) delineated various self-management strategies such as self-goal setting, self-observation, self-reward, self-punishment, and self-cueing (Manz, 1986; Neck & Manz, 2010) that are used by individuals to manage their goal-striving behaviors.

An evaluation of beliefs and assumptions in the components of constructive thought shows a higher mean percentage (77.69%) than self-talk (76.17%). This means that the majority of the respondents are more evaluators of beliefs and assumptions than self-talkers. The evaluation of



self-belief is critical in assisting one to recognise their dysfunctional thinking and destructive beliefs as well as to learn to challenge these beliefs and replace them with more constructive thoughts (Ho & Nesbit, 2014:394). A number of scholars have also argued that individuals who utilise constructive-thought self-leadership strategies to eliminate dysfunctional, negative thoughts are more likely to experience job satisfaction (Houghton & Jinkerson, 2007; Neck & Manz, 1996).

#### 4.5. NORMALITY TESTS

A test to determine whether or not the variables are normally distributed was done in order to analyse further these variables. This is because the types of tests to be used depend on the distribution of the variables. If variables are normally distributed, then parametric tests are used, whereas if the variables are not normally distributed then non-parametric tests are used. Parametric tests include T-tests and ANOVA, which are tests for significant group differences as well as Pearson correlation coefficients for testing the relationships between variables. Non-parametric tests include the Mann-Whitney U test and the Kruskal-Wallis test for significant group differences as well as Spearman’s rho correlation coefficient for significant relationships between variables. The Kolmogorov-Smirnov (KS) test, which determines whether or not the constructed variables are normally distributed, was used to test normality. The results are presented in Table 4.5.

**Table 4.5: Normality Tests**

<b>Variables</b>	<b>KS Statistic</b>	<b>P-value</b>
<b>SELF-LEADERSHIP</b>		
<b>Behaviour focused (components)</b>		
<b>Self-goal setting</b>	0.254	0.000
<b>Self-reward</b>	0.119	0.001
<b>Self-observation</b>	0.190	0.000
<b>Self-cueing</b>	0.150	0.000
<b>Self-punishment</b>	0.100	0.011
<b>Behaviour focused (overall)</b>	0.131	0.000
<b>Natural rewards</b>		
<b>Natural rewards</b>	0.100	0.011
<b>Constructive thought (components)</b>		
<b>Self-talk</b>	0.248	0.000
<b>Evaluating beliefs and assumptions</b>	0.138	0.000

<b>Constructive thought (overall)</b>	0.144	0.000
<b>Self-leadership (overall)</b>	0.113	0.002
<b>LOCUS OF CONTROL</b>		
<b>Locus of control (components)</b>		
<b>Internal LoC</b>	0.078	0.103
<b>Locus of control (overall)</b>	0.083	0.066
<b>JOB PERFORMANCE</b>		
<b>Visualising successful performance</b>	0.172	0.000

KS = Kolmogorov-Smirnov

In order to conclude from the KS test, this study looks at the p-value provided by the test. This p-value is compared with a significance level of 0.1. If the p-value is less than 0.1, we conclude that the variable is not normally distributed and if the p-value is greater than 0.1, we conclude that the variable is normally distributed. From the results above, all the variables have p-values that are below 0.1, except for internal locus of control. This indicates that these variables are not normally distributed. Therefore, only the internal locus of control is normally distributed. If variables are not normally distributed, it means that they have a skewed distribution and, therefore, non-parametric tests are to be used.

#### 4.5.1. LOCUS OF CONTROL

A test for significant group differences was then used. This sought to establish whether or not locus of control differs with the different demographic groups such as gender, marital status, age, ethnicity, education, hierarchy and years of experience. Two tests, the Mann-Whitney U test and the Kruskal-Wallis test, were used. These tests are used to establish if the group means of interval variables differ from one another. Hence, for this study, the analysis sought to determine whether or not locus of control is the same across all groups of gender, all groups of marital status, all age groups, all ethnic groups, all education levels, all hierarchies as well as all groups of experience.

Furthermore, the Mann-Whitney U test is used when comparison of the differences is between two groups and will be used for gender and marital status; whereas the Kruskal-Wallis test is used when comparison is among 3 or more groups and will be used for age, ethnicity, education, hierarchy and years of experience. The null hypotheses of the Mann-Whitney U test are:

- There is no significant difference in locus of control between the males and females.

- There is no significant difference in locus of control between the single and married respondents.

Whereas the alternative hypotheses, which are the research hypotheses, are as follows:

- There is a significant difference in locus of control between males and females.
- There is a significant difference in locus of control between the single and married respondents.

For conclusions, we look at the p-value and compare it with a significance level of 0.1. If the p-value is less than 0.1 we conclude that there are significant differences between males and females and/or between single and married respondents. The results of the Mann-Whitney U test for locus of control are presented in Table 4.6.

**Table 4.6: Mann-Whitney U Tests**

Variables	Gender	Marital status
<b>LOCUS OF CONTROL</b>		
<b>Internal LoC</b>	0.311	0.292
<b>Locus of control (overall)</b>	0.299	0.194

The p-values for gender are greater than 0.1, meaning that the measures of these locus of control are the same for males and females. Similarly, the p-values for marital status are greater than 0.1, meaning that the measures of locus of control are the same for single and married respondents.

The null hypotheses of the Kruskal-Wallis test are as follows:

- There are no significant differences in locus of control among the different age groups.
- There are no significant differences in locus of control among the different ethnic groups.
- There are no significant differences in locus of control among the different education groups.
- There are no significant differences in locus of control among the different hierarchy groups.
- There are no significant differences in locus of control among the different tenure groups (years of experience).

Whereas the alternative hypotheses, which are the research hypotheses, are as follows:

- There are significant differences in locus of control among the different age groups.
- There are significant differences in locus of control among the different ethnic groups.
- There are significant differences in locus of control among the different education groups.
- There are significant differences in locus of control among the different hierarchy groups.
- There are significant differences in locus of control among the different tenure groups.

For the conclusions, we look at the p-value and compare it with a significance level of 0.1. If the p-value is less than 0.1 it means that the research hypothesis is correct and we, therefore, conclude that there are significant differences. The results of the Kruskal-Wallis test are presented in Table 4.7.

**Table 4.7: Kruskal-Wallis Tests**

Variables	Age	Ethnicity	Education	Hierarchy	Years of experience
<b>LOCUS OF CONTROL</b>					
<b>Internal LoC</b>	0.464	0.190	0.657	0.886	0.961
<b>Locus of control (overall)</b>	0.619	0.552	0.189	0.555	0.594

An evaluation of internal locus of control here, shows that all the p-values for the age variable are greater than 0.1, meaning that the locus of control measures are the same across all age groups. For ethnic groups, all the p-values are greater than 0.1, meaning that the measures of locus of control are the same across all ethnic groups. Similarly, the differences among the education levels, the p-values are greater than 0.1, which indicates that locus of control does not differ with the education levels. Lastly, the p-values for engineers' hierarchy and years of experience are greater than 0.1, meaning that the locus of control does not differ along the engineer's hierarchy nor by the number of years of experience.

The findings in Asiedu-Appiah and Addai (2014:53) are slightly different from those reported in the current study. A correlation analysis employed in their study reveals that although employees' age, sex, length of service and marital status had slight variation with locus of control, these variations are not significant to model a relationship since the significance level of the correlation coefficients were higher than 0.05. However, educational qualification and religion had both stronger correlation coefficients as well as higher significance level with locus of control. This

implies that a person's educational qualification and religion are more likely to determine or influence the way he/she perceives the things that happen around.

#### 4.5.2. SELF-LEADERSHIP

A test for significant group differences was used to establish whether or not self-leadership and its components differ with the different demographic groups. Two tests were used and these are the Mann-Whitney U test and the Kruskal-Wallis test. Hence, for this study, the analysis sought to determine whether or not self-leadership and the components of self-leadership are the same across all groups of gender, marital status, age groups, ethnic groups, all education levels, all hierarchies as well as all groups of experience.

Furthermore, the Mann-Whitney U test which is used when comparison of the differences is between two groups, was used for gender and marital status; whereas the Kruskal-Wallis test which is used when comparison is among 3 or more groups, was used for age, ethnic background, education, hierarchy and years of experience. The null hypotheses of the Mann-Whitney U test are:

- (i) There is no significant difference in self-leadership between the male and female respondents.
- (ii) There is no significant difference in self-leadership between the single and married respondents.

The alternative hypotheses, which are also the research hypotheses, are as follows:

- (i) There is a significant difference in self-leadership between the male and female respondents.
- (ii) There is a significant difference in self-leadership between the single and married respondents.

For conclusions, the p-value is examined and compared with a significance level of 0.1. If the p-value is less than 0.1, it is concluded that there are significant differences between male and

female respondents. The results of the Mann-Whitney U test for self-leadership are presented in Table 4.8.

**Table 4.8: Mann-Whitney U Tests for Self-Leadership**

Variables	Gender	Marital status
<b>SELF-LEADERSHIP</b>		
<b>Behaviour focused (components)</b>		
Self-goal setting	0.762	0.044*
Self-reward	0.035*	0.002*
Self-observation	0.618	0.055*
Self-cueing	0.288	0.530
Self-punishment	0.384	0.668
Behaviour focused (overall)	0.150	0.579
Natural rewards	0.942	0.259
<b>Constructive thought (components)</b>		
Self-talk	0.959	0.948
Evaluating beliefs and assumptions	0.997	0.089*
Constructive thought (overall)	0.803	0.282
Self-leadership (overall)	0.270	0.560

As far as the gender of respondents is concerned, the p-value of self-reward was 0.035, which is less than 0.1. This means that the self-reward score differed between male and female respondents. The mean percentages of these 2 groups indicate that females (75%) had a higher self-reward measure than males (66.89%). All other variables have p-values that are greater than 0.1 meaning that the measures of these concepts were the same for males and females. Moreover, for marital status, the p-values for self-goal setting, self-reward, self-observation as well as evaluating beliefs and assumptions are 0.044, 0.002, 0.055 and 0.089 respectively. These are less than 0.1, which means that the measures of these concepts differed between the single (never married/divorced/separated) respondents and the married respondents. All other variables had p-values that are greater than 0.1, meaning that the measures of these concepts were the same for single and married respondents.

The null hypotheses of the Kruskal-Wallis test are as follows:

- There are no significant differences in self-leadership among the age groups.
- There are no significant differences in self-leadership among the ethnic groups.
- There are no significant differences in self-leadership among the education groups.
- There are no significant differences in self-leadership among the hierarchy groups.

- There are no significant differences in self-leadership among groups based on their tenure (years of experience).

Whereas the alternative hypotheses, which are also the research hypotheses, are as follows:

- There are significant differences in self-leadership among the age groups.
- There are significant differences in self-leadership among the ethnic groups.
- There are significant differences in self-leadership among the education groups.
- There are significant differences in self-leadership among the hierarchy groups.
- There are significant differences in self-leadership among groups based on their tenure.

For conclusions, the p-value are examined and compared with a significance level of 0.1. If the p-value is less than 0.1, it means that the research hypothesis is correct and, therefore, it is concluded that there are significant differences. The results of the Kruskal-Wallis test are presented in Table 4.9 below.

**Table 4.9: Kruskal-Wallis Tests**

Variables	Age	Ethnicity	Education	Hierarchy	Years of experience
<b>SELF-LEADERSHIP</b>					
<b>Behaviour focused (components)</b>					
Self-goal setting	0.047*	0.432	0.208	0.966	0.103
Self-reward	0.535	0.009*	0.201	0.768	0.020*
Self-observation	0.014*	0.413	0.435	0.505	0.071*
Self-cueing	0.142	0.877	0.030*	0.802	0.183
Self-punishment	0.037*	0.094*	0.256	0.123	0.257
<b>Behaviour focused (overall)</b>	0.233	0.202	0.137	0.403	0.385
<b>Natural rewards</b>					
Natural rewards	0.418	0.514	0.248	0.145	0.752
<b>Constructive thought (components)</b>					
Self-talk	0.658	0.066*	0.126	0.949	0.439
Evaluating beliefs and assumptions	0.658	0.525	0.491	0.600	0.390
<b>Constructive thought (overall)</b>	0.574	0.167	0.184	0.864	0.538
<b>Self-leadership (overall)</b>	0.630	0.100	0.171	0.469	0.466

Note: \* - Reject the null hypothesis

With regard to age, the p-values for self-goal setting, self-observation and self-punishment are 0.047, 0.014 and 0.037, respectively, and less than 0.1. This means that self-goal setting, self-

observation and self-punishment scores differ among the age groups. For self-goal setting, the significant difference is between the respondents aged 21 – 30 years (80.1%) and those aged 41 years and above (91.76%) which indicates that the older group engages more in self-goal setting than the younger age group. This indicates that the older an employee is, the more mature they are likely to be become and the implications are that they will set realistic goal setting for themselves and for their career trajectory. This view is supported by Kotur and Anbazhagan (2014) whose study on the Influence of age and gender on Leadership Style revealed that as individuals grow older, they knowingly or unknowingly acquire more knowledge and naturally tend to be more flexible (Kotur & Anbazhagan, 2014:35).

There is a significant difference on self-observation between the respondents aged 21 – 30 years (80.24%) and those aged 31 – 40 years (87.03%). This indicates that older group engage more in self-observation than the younger age group. Since employees in their twenties are normally considered to be in the formative years of their careers, they may not have sufficiently developed solid self-observation skills than their older counterparts. This contrasts with Kotur and Anbazhagan's (2014:31) argument that experience, including self-observation, is often considered as a function of age and therefore, older people are given priority for leadership positions in different organisations.

Lastly, with regard to self-punishment, there was a significant difference between respondents aged 21 – 30 years (69.27%) and those aged 31 – 40 years (61.25%). This indicates that those aged 21 – 30 years engage more in self-punishment than those aged between 31 and 40 years. The engagement in self-punishment by those aged between 21-30 years can be attributed to the young adults/young employees' uncertainty about the appropriate coping mechanisms for dealing with limited success/ failure and how to reach goals they aspire for. Houghton *et al.*, (2012:218) argue that employees must be involved in self-correcting feedback which involves a constructive self-examination of failures and unproductive behaviours in order to reshape these behaviours in more positive directions. However, excessive self-punishment, including harsh and unrealistic self-criticisms leads to feelings of guilt and inadequacy and is often counterproductive, hence, it should be avoided (Manz & Sims, 2001; Neck & Houghton, 2006)

There is also a significant difference between the respondents aged 31 – 40 years (61.25%) and those aged 41 years and above (69.61%) with regard to self-punishment. This indicates that the older group engages more in self-punishment than the younger age group. It can be assumed



that older people engage in self-punishment out of self-pity and regret the opportunities lost during the days of their careers. In fact, literature suggest that self-punishment produces positive effects on performance and other desirable outcomes (with the exception of self-punishment) for a variety of types of individuals including trainees, college students, and employees (Anderson, & Manz, 1998; Neck & Houghton, 2006; Prussia, Stewart *et al.*, 2011).

All other variables have p-values that are greater than 0.1, meaning that the measures of these concepts are the same across all age groups. For ethnic groups, the p-values for self-reward, self-punishment and self-talk are 0.009, 0.094 and 0.066 respectively and are less than 0.1. This means that self-reward, self-talk and self-punishment scores differ among the different ethnic groups. For self-reward, the significant difference is between the white respondents (60.46%) and the black African respondents (74.58%) which indicates that the blacks engage more in self-reward than the whites. Since self-reward involves a situation where an individual “spoils” / rewards themselves after achieving something desirable, and blacks Africans continue to be the most underprivileged racial group in the post independent South Africa because of the apartheid legacy and its racial classification, it is logical to expect individuals from this racial group to reward themselves when the opportunity presents itself. GEM Executive Report for South Africa 2006 (Maas & Herrington, 2006) suggests that these challenge can be traced back to the historical context of apartheid whereby opportunities for marginalised groups to own and manage their businesses were restricted by law, i.e. they were simply not allowed to operate or access business management leadership opportunities and were denied high leadership positions in most sectors of the economy. These blocked opportunities for expression of self-reward.

There is also a significant difference between the white respondents (60.46%) and the Indian and other groups (78.33%), which indicates that the Indian and other groups of employees engage more in self-reward than the whites. Although the Indians were generally more privileged compared to their black African counterparts during the apartheid era, they were also considered to be less privileged compared to whites during the same period. As such, the tendency to spoil themselves for good performance, when an opportunity arise, may stem from being an under privileged race as a consequence of the apartheid legacy. Etherington *et al.*, (2010) argue that during apartheid, Indians were subjugated by the white regime, but were still considered superior to coloured and black people.

For self-punishment, the significant difference is between the white respondents (69.89%) and the Indian and others group (60.83%). This indicates that whites engage more in self-punishment than the Indian and others groups. Since whites generally remain a privileged race, even in the post independent era and remain in senior positions compared to any other race in South Africa, the achievement motivation can be considered to have traditionally crystallised in them compared to other races, thus leading to less tolerance for failure or sub-optimal performance. If this interpretation is logical it would be expected of them to have self-destructive behaviours in situations where they encounter failure, which they may encounter as self-defeat.

Lastly, with regard to self-talk, the significant difference is between the whites (73.79%), Indian and others group (92.5%), which indicates that the Indian and others group engage more in self-talk than the whites. It can be assumed that Indians' involvement in self-talk can be attributed to an improvement in individual performance. Houghton *et al.*, (2012) argue that research across numerous disciplines, such as sports psychology, clinical psychology, education, and communication, provides support for the role of positive self-talk, and constructive mental imagery as effective means for improving individual performance (e. g., Neck & Manz, 1992). All other variables have p-values that are greater than 0.1, thus suggesting that the measures of these concepts are the same across all ethnic groups.

With regard to education, the p-value for self-cueing is 0.03, which is less than 0.1. This means that self-cueing scores differ among the education levels. The significant difference is between the respondents who have a diploma (71.92%) and those with a master's (87.62%), which indicates that the respondents with masters engage more in self-cueing than the respondents with a diploma. The higher levels of self-cueing among those with higher educational attainments also suggest that they ensure the best performance at time management through the use of a simple to-do note list (Alves *et al.*, 2006: 341)

All other variables have p-values that are greater than 0.1, thus indicating that the measures of these concepts are the same across all education levels. For engineers' hierarchy, all p-values are greater than 0.1. This means that the measures of self-leadership and its components and locus of control are the same across all hierarchies in the company. It can be inferred that there are no significant statistically differences, on the grounds of self-leadership and locus of control, between different hierarchies of engineers. The inference from this that, once the capacity to

engage in self-cuing is developed at lower levels of the hierarchy, there is no strong progression development of it across different hierarchies (Norris, 2008:54)

A comparison of; Liska, 1984:61; the years of experience, shows that the p-values for self-reward, self-observation and influence of locus of control on job performance are 0.02, 0.071 and 0.049, respectively, and less than 0.1. This means that self-reward, self-observation and influence of locus of control on job performance differ among the levels of experience. For self-reward, the significant difference is between the respondents with experience of 0 – 5 years (76.3%) and those with experience of over 15 years (63.33%), which indicates that a group with less experience engages more in self-rewarding than one with more experience. There is also a significant difference between the respondents with experience of 11 – 15 years (75.56%) and those with experience of over 15 years (63.33%), thus indicating that a group with less experience engages more in self-rewarding than one with more experience. These findings are consistent across different years of experience, which suggests that the tendency to engage in self-reward seems to wane off slowly with an increase in experience. It seems employees become marginally less interested in self-reward as they acquire more work experience, thus partially supporting Maslow's needs hierarchy's postulation that a satisfied need (in this case, a need to achieve) is not a motivator (motivation being desire to engage in self-rewarding behaviour). Kaur (2013:1062), argues that self-rewarding behaviour play an important role in increasing employee job satisfaction and this indeed results in an improvement of organisational performance.

For self-observation, the significant difference is between the respondents with experience of 0 – 5 years (79.44%) and those with experience of 11 - 15 years (86.46%), which indicates that the group with more experience engages more in self-observation than the group with less experience. It would be assumed that an increase in experience produces some positive influence on the capacity to improve organisational performance. Similarly, Elloy (2008) suggests that self-leadership behaviours, such as self-observation could positively influence employees' innovation performance.

## 4.6. PRESENTATION, INTERPRETATION AND DISCUSSION ON FINDINGS AND RESPONSE TO RESEARCH QUESTIONS

This section presents results of statistical analysis and discusses the research questions investigated in this study. Descriptive statistics such as tables, percentages and bar graphs were used to discuss the results, while the Mann-Whitney U tests and Kruskal-Wallis tests were employed to determine the statistical significance of different variables. The strength of the relationship between variables was measured using Spearman’s rho correlation coefficient and regression equations. A Cronbach’s alpha coefficient was also used to test if the variables constructed were reliable. For further analysis of these variables, a test to determine whether or not the variables are normally distributed was done.

### 4.6.1. MAIN COMPONENTS OF INTERNAL AND EXTERNAL LOCUS OF CONTROL OF ESKOM ENGINEERING WORKFORCE

This section establishes whether respondents had internal locus of control or external locus of control in an attempt to address the research question on the main components of internal and external locus of control of Eskom engineers.

#### 4.6.1.1. Internal locus of control

**Table 4.10: Internal Locus of Control**

Internal locus of control		Frequency distribution						Descriptive		Latent factor
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Agree/Strongly agree	Mean	Standard deviation	
Can certainly determine what will happen in my work environment.	n	2	9	41	32	23	51.40 %	3.61	0.98	0.328
	%	1.87%	8.41%	38.32 %	29.91%	21.50 %				
Have a big role in shaping events which influence my work life.	n	0	1	8	56	42	91.59 %	4.30	0.65	0.317
	%	0.00%	0.93%	7.48%	52.34%	39.25 %				
	n	1	0	1	45	59		4.52	0.62	0.675

<b>Have the power to determine the attitude I want to display at work.</b>	%	0.94%	0.00%	0.94%	42.45%	55.66%	98.11%			
<b>Work life is determined by own action.</b>	n	1	1	5	47	53	93.46%	4.40	0.71	0.668
	%	0.93%	0.93%	4.67%	43.93%	49.53%				
<b>Strong connection between work based actions and consequences.</b>	n	1	3	15	50	38	82.24%	4.13	0.83	0.513
	%	0.93%	2.80%	14.02%	46.73%	35.51%				
<b>People who perform their job well deserve to be rewarded.</b>	n	13	17	21	30	26	52.34%	3.36	1.33	0.411
	%	12.15%	15.89%	19.63%	28.04%	24.30%				
<b>Conceive supervisors in high regards.</b>	n	9	25	29	30	14	41.12%	3.14	1.17	0.372
	%	8.41%	23.36%	27.10%	28.04%	13.08%				
<b>Value participative management style.</b>	n	1	0	12	49	45	87.85%	4.28	0.74	0.618
	%	0.93%	0.00%	11.21%	45.79%	42.06%				
<b>Have autonomy and control of work activities.</b>	n	2	4	16	53	31	79.25%	4.01	0.88	0.535
	%	1.89%	3.77%	15.09%	50.00%	29.25%				
<b>More likely to experience work stress.</b>	n	14	28	31	23	11	31.78%	2.90	1.19	0.199
	%	13.08%	26.17%	28.97%	21.50%	10.28%				
<b>Generally satisfied with my job.</b>	n	3	4	21	43	36	73.83%	3.98	0.97	0.351
	%	2.80%	3.74%	19.63%	40.19%	33.64%				
<b>Works hard to develop knowledge, skills and abilities.</b>	n	2	2	6	45	52	90.65%	4.34	0.82	0.675
	%	1.87%	1.87%	5.61%	42.06%	48.60%				
<b>Believes positive affirmation from previous experiences results from attitude.</b>	n	4	6	35	40	22	57.94%	3.65	0.99	0.270
	%	3.74%	5.61%	32.71%	37.38%	20.56%				
<b>Have lower levels of job stress if performance is better.</b>	n	4	14	21	39	28	63.21%	3.69	1.12	0.188
	%	3.77%	13.21%	19.81%	36.79%	26.42%				
<b>Emphasizes striving for achievement.</b>	n	1	3	10	51	42	86.92%	4.21	0.80	0.408
	%	0.93%	2.80%	9.35%	47.66%	39.25%				

### *Power to determine the attitude*

Table 4.10 reveals that 98.11% of the respondents had the power to determine the attitude they want to display at work. This findings mirror Gülveren's (2008) findings in the investigation of the relationship between Internal-External Locus of Control trait anger, anger expression styles and intelligence in grade 12 high school students, where individuals who possessed internal locus of control considered themselves to have the power to determine the attitude they want to display,

demonstrated a positive ego concept, and believed that they could direct their lives whatever way they desired. With reference to self-efficacy, Rambe and Modise (2016) claim that employees are compelled to display positive attitudes to their work if they desire self-development and a better performance for organisational change. Similarly, White and Bryson's (2013) research on positive employee attitudes support the view that employees were in full control of the attitudes they chose to display in the work environment. White and Bryson's (2013) argue further that one of the means by which firms achieve higher performance is by influencing employees' attitudes to their jobs and to the firm through configurations of practice that are supportive of intrinsic motivation.

#### *Work life determined by own actions*

About 93.46% of respondents agree that their work life is determined by their own actions at work. Similarly, 91.59% reported that they played a big role in shaping the events which influence their work life. This positive orientation towards work life concurs with Thomas et al.'s (2006) study on Locus of Control at work which observes that individuals who have the internal locus of control, think that they have a big role in affecting the events which influence their work lives. These findings however contradict Kathryn *et al.* (2014) evidence on work orientations, which emphasised the value of work conditions and associates, heuristic-creative, achievement-prestige, and independence-variety in influencing work orientation rather individual decision making.

#### *Working hard to develop knowledge, skills and abilities*

A majority (90.65%) of personnel in the engineering divisions claimed that they worked hard to develop their knowledge, skills and abilities. Since self-development through education and on-the-job training are considered critical to successful job performance, which may positively impact on such personnel's upward mobility in the organisations through promotion, and salary increments, it is logical to expect higher employee investment in the acquisition of deeper work-related knowledge and competencies. This view resonates with Westergren's (2011) study on opening up innovation through IT-enabled value adding services within the manufacturing industry, which demonstrates that employees seek to develop their knowledge base to ensure successful job performance through innovative competence that is based on the abilities of an individual and the culture in which innovative competencies are developed.

### *Striving for achievement, work-based actions and consequences*

About 86.92% of the respondents emphasised striving for achievement and 82.24% usually see a strong connection between their work-based actions and consequences of those actions in the work environment. The high internal locus of control seeking to achieve personal achievement supports Aldefer's ERG theory in the study of Jane's (2012) need for an achievement concept, where employees are considered to increase their morale and productivity. The positive affirmation on conceiving connections between consequences of those actions in the work environment backs Thomas *et al.* (2006:107) view that employees who possess high internal locus of control believe that they are the masters of their destiny, and are often confident, alert, and active in attempting to control their external environments. Moreover, they tend to see a strong connection between their actions and the consequences of those actions (Thomas *et al.* 2006). Similarly, the perceived positive association between individual actions and work outcomes resonate well with Aldefer's ERG theory, which suggest that people can be motivated by needs from more than one level at the same time and that there is not necessarily a strict progression from one level to the next. It also acknowledges that the importance of needs varies for each person and as circumstances change, for some people might put a higher value on growth than relationships at certain stages of their lives.

### *Valuing participative management style*

Furthermore, 87.85% of the personnel surveyed valued a participative management style. This finding corroborates other revelations from extant literature, showing that employees had positive affirmations of their management styles of making decisions, solving problems and discharges various functions of goal setting, formulation, implementation of strategy, corporate image building, dealing with key stakeholders and other basic management activities (Nwadukwe & Court. 2012).

A study conducted by Steenkamp (2010) on the contribution of a supportive worker-centered management approach to occupational health and safety in Eskom, revealed that employees had positive orientations towards their general managers. Apart from employee's perceptions towards supervisors and concerns about experiencing work stress, which had negative responses, which are 41.12% and 31.78%, respectively, the engineering personnel at Eskom in Bloemfontein generally exhibited a high level of internal locus of control judging from their positive work-oriented experiences and their capacity to control situations on the job itself and the general work



environment. This strong positive orientation towards work itself and the general work environment gels well with Asiedu-Appiah and Addai's (2014:53) findings on employees of the Kumasi Centre for Collaborative Research (KCCR) in which 85.72% of respondents were reported to possess internal locus of control.

Overall, the positive work orientation insinuate a strong internal work ethics among technicians, technologists and engineers in the engineering divisions at Eskom, Bloemfontein, which if properly harnessed can positively impact on job performance. This inherent power to determine the task and job environment outcomes seems to eclipse responses to statements such as “people who perform their job well deserve to be rewarded” and “ I can certainly determine what will happen in my work environment” which generated marginal affirmations (i.e. 52.34% and 51.40% respectively). The marginal affirmation of the first statement seems to attest to the absence of limited adherence to an equitable compensation structure at Eskom, Bloemfontein. A McKinsey Quarterly study found that seventy percent of organisations say that they use or plan on using a motivation program (Dewhurst *et al.* 2009). Many managers still believe that money is everything. Research shows that non-financial rewards or recognition serve as a better motivator than money for most people (Burton, 2012). The later statement is quite relevant since it is inconceivable to have full control over one’s work-related destiny unless if one were perhaps, self-employed. Thomas *et al.* (2006) note that people who possess a high internal locus of control have full control over their work-related destiny.

#### 4.6.1.2. External locus of control

**Table 4.11: External locus of control**

External locus of control		Frequency distribution						Descriptive		Latent factor
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Agree/Strongly agree	Mean	Standard deviation	Factor loading
<b>External environment influences my actions at work.</b>	n	7	24	33	27	16	40.19%	3.20	1.14	0.512
	%	6.54%	22.43%	30.84%	25.23%	14.95%				
<b>Depends on peers to get job done more.</b>	n	52	25	15	6	8	13.21%	1.99	1.25	0.475
	%	49.06%	23.58%	14.15%	5.66%	7.55%				
	n	3	9	22	43	30	68.22%	3.82	1.03	0.131



<b>Work climate tends to control my actions at work.</b>	%	2.80%	8.41%	20.56%	40.19%	28.04%				
<b>Depends on supervisor for direction and guidance.</b>	n	43	36	14	7	7	13.08%	2.06	1.18	0.646
	%	40.19%	33.64%	13.08%	6.54%	6.54%				
<b>Attitude towards work is shaped by financial incentives.</b>	n	17	28	33	20	9	27.10%	2.78	1.18	0.445
	%	15.89%	26.17%	30.84%	18.69%	8.41%				
<b>Struggles to work independently without peers.</b>	n	57	36	11	1	1	1.89%	1.74	1.44	0.441
	%	53.27%	33.96%	10.38%	0.94%	0.94%				
<b>Attributes success at work to external forces.</b>	n	35	41	22	7	2	8.41%	2.07	0.98	0.614
	%	32.71%	38.32%	20.56%	6.54%	1.87%				

### *Work rules and procedures controlling actions at work*

As shown in Table 4.11, a majority (68.22%) of the respondents agrees that the general work climate (e.g. work rules, procedures) tends to control their actions at work. Given that the different work environments at Eskom, Bloemfontein, which include the high voltage, operational resources management; network system configuration administration and plant maintenance; basic system maintenance and risk reduction; and fault finding and repair work, are all governed by clear operational guidelines, rules and stipulations such as the codes of practice relating to the operation, use and maintenance of transmission and distribution power systems, it is natural that engineers would be obliged to these regulations in their work environments. For instance, the high voltage all pylons that are erected in residential areas have a height restriction of 25 meters or 80 feet tall, and yet if there are tall trees that are present, then the towers' heights of 30 to 40 meters or 100 or 120 feet are recommended by Clark (2014) in his study of planning and building successful installation.

### *External environment and financial incentives*

About 40.19% agreed that they conceived the external environment to influence and control their actions at work, while 27.1% agreed that their attitude towards work is shaped more by financial incentives. This moderately high external locus of control suggests that some of Eskom employees lacked the capacity and capability to determine their work-related and work environment-related outcomes. These findings mirror Rana *et al.* (2011) findings, in their study of the effects of locus of control on learning performance that, individuals who have high external locus of control display unsteady performance. However, the fact that these employees were in

the minority is consistent with findings on the high internal locus of control reported in the previous section (see Table 4.1: Internal Locus of Control).

*Depending on peers and supervisor*

13.21% of the respondents depend on their peers to get the job done more than they do themselves and 13.08% depend on their supervisor for direction and guidance than they depend on themselves. This implies that the engineering division employees at Eskom have a high external locus of control, judging from their limited personal capacity and capability to determine their work-related and work-environment based outcomes. These results are inconsistent with Asiedu-Appiah and Addai’s (2014:53) findings on the causal relationship between employees’ locus of control and contextual performance, which reported that only 14.28% of respondents displayed high external locus of control. The inference from these findings is that not all engineering division employees at Eskom, Bloemfontein possess high internal locus of control, as some are less focused on success, while others lack self-confidence and ingenuity, and are less careful, alert and dominant.

**4.6.2. THE CONSTITUTIVE DIMENSIONS/ COMPONENTS OF SELF-LEADERSHIP OF ESKOM ENGINEERING WORKFORCE**

This section explores self-leadership and its components. The self-leadership construct has a *Behavior focused* component, which comprises – self-goal setting, self-rewards, self-observation, self-cues, and self-punishment as its sub-components. The other component is *Natural rewards*, which has natural rewards as its sub component. The last component examined was *Constructive Thought*, which covers self-talk, evaluating beliefs and assumptions as its sub-components. The results are presented in Table 4.12.

4.6.2.1. Behavior Focused Strategy

**Table 4.12: Self-goal setting**

Self-goal setting	Frequency distribution	Descriptive	Latent factor
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		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Agree/Strongly agree	Mean	Standard deviation	Factor loading
<b>I establish specific goals for my own performance.</b>	n	1	1	7	55	43	91.59%	4.29	0.71	0.822
	%	0.93%	0.93%	6.54%	51.40%	40.19%				
<b>Guided/informed by goals in accomplishment of work.</b>	n	1	0	12	54	40	87.85%	4.23	0.72	0.857
	%	0.93%	0.00%	11.21%	50.47%	37.38%				
<b>Work toward specific goals set for my work.</b>	n	1	3	8	48	47	88.79%	4.28	0.80	0.685
	%	0.93%	2.80%	7.48%	44.86%	43.93%				
<b>I think about the goals I intend to achieve.</b>	n	2	3	20	48	34	76.64%	4.48	4.91	0.332
	%	1.87%	2.80%	18.69%	44.86%	31.78%				
<b>Write specific goals for my own performance.</b>	n	3	1	25	46	32	72.90%	3.96	0.91	0.761
	%	2.80%	0.93%	23.36%	42.99%	29.91%				

### *Using self-goal setting skills to perform better*

Table 4.12 reflects how respondents use their self-goal setting skills to perform better at work. For example, the Table shows that 91.59% of the respondents agree/strongly agree that they establish specific goals for their own performances. This finding resonates with Sahin’s (2011) view that organisations must develop a psychological climate that encourages self-leadership by articulating a set of values that tap into employees’ intrinsic motivation, and encourage them to reach their own potential by developing own goals and expectations. According to Houghton *et al.*, (2012:218) self-goal setting encourages individuals to develop and adopt specific goals and related reward contingencies in order to energise and direct necessary performance-related behaviors.

### *Working towards specific goals*

About 88.79% of the respondents agree/strongly agreed that they work toward specific goals that they have set for themselves during work, while 87.85% of the respondents were consciously informed by goals in the accomplishment of their work. The goal-setting and goal realising behavior inherent among engineering division’s employees is consonant with Lunenburg’s (2011) findings on the study of Goal-Setting Theory of Motivation, which is that goal orientation is a critical aspect of higher job performance. By the same token, DuBrin (2012) buttresses our finding by acknowledging that the setting of task-based and work-related goals serves as a bedrock for enhancing motivation and performance. Research indicates that specific goals help bring about

other desirable organisational goals, such as reducing absenteeism, tardiness, and turnover (Locke & Latham, 2002).

*Thinking and writing specific goals for future performance*

The results show that 76.64% of the respondents constantly think about the goals that they intend to achieve in the future during work and 72.9% of the respondents write specific goals for their own performance. The continuous cogitation and documentation of work-related goals demonstrate that Eskom engineers monitor their individual development in the tasks and the work environment by setting goals, constantly reminding themselves of what is required to succeed, fostering feelings of self-determination, taking ownership over tasks and reinforcing desirable behavior. A growing body of goal setting research suggests that accepting specific, challenging, and realistic performance goals can significantly impact task-related performance (e. g., Manz & Sims, 1980; Locke & Latham, 2002; Greenberg, 2011; Newstrom, 2011).

Mahembe et al. (2013:3) argues that self-goal setting enables focused action that is required to achieve behaviour change. Lunenburg (2011), on a similar note, states that goals setting affects behaviour (job performance) through other mechanisms, such as direct attention and action. Based on hundreds of studies, the major finding of goal setting is that individuals who are provided with specific, difficult but attainable goals perform better than those given easy, nonspecific, or no goals at all. At the same time, however, the individuals must have sufficient ability, accept the goals, and receive feedback related to performance (Latham, 2003). The learning goal orientation is particularly relevant in today’s work environment, which requires employees to be proactive, problem solving, creative and open to new ideas, and to adapt to new and changing situations (Luthans, 2011).

**Table 4.13: Self-reward**

Self-reward		Frequency distribution						Descriptive		Latent factor
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Agree/Strongly agree	Mean	Standard deviation	Factor loading
n		3	14	34	35	21	52.34%	3.53	1.04	0.917

<b>I treat myself to something well after a good performance.</b>	%	2.80%	13.08%	31.78%	32.71%	19.63%				
<b>I reward myself with a special treat for doing something well.</b>	n	4	20	30	32	21	49.53%	3.43	1.12	0.923
	%	3.74%	18.69%	28.04%	29.91%	19.63%				
<b>I reward myself with something I like when I complete task successfully.</b>	n	3	14	27	40	23	58.88%	3.62	1.05	0.856
	%	2.80%	13.08%	25.23%	37.38%	21.50%				

*Self-reward after good performance*

Table 4.13 regarding self-reward shows that 58.88% of the respondents reward themselves with something when they complete tasks successfully. Similarly, 52.34% of the respondents agree that they treat themselves to something well after a good performance and 49.53% of the respondents reward themselves with a special treat for doing something well. This self-rewarding behavior finds support in Mahembe *et al.* (2013) claim that if the set goals are achieved, self-rewards may be realised by an individual employee through mentally congratulating oneself for an important accomplishment, or bestowing physical reward such as a ‘prize’ for completing a difficult project successfully. Other literature argues that although engineers enjoy the work that they do, it is possible that they are not being remunerated and rewarded adequately. Due to the skills shortages that exist in these occupational categories, it is postulated that employees working in these categories are increasingly doing more work, yet that they are not necessarily being remunerated or rewarded for the extra work that they are doing (Van der Walt *et al.*, 2016).

Robbins (2005) asserts that employees prefer jobs that afford them the opportunity to apply their skills and abilities, offer them variety and freedom, and provide constant feedback on their performance. Furthermore, employees that find their work interesting are likely to be more satisfied and motivated than employees that do not enjoy their jobs. For this reason, it is important that public entities ensure that engineers are rewarded and remunerated adequately, and that good relations exist between these employees and their supervisors and co-workers, to prevent these employees from being “poached” by international public and private companies, thereby exacerbating the current skills shortages in these occupational categories (Van der Walt *et al.*, 2016).

Even though the percentages are slightly in the middle, it is evident that 50% of engineers at Eskom display self-development through extrinsic tangible or abstract reinforcement of goal attainment and by developing reward systems to establish feelings of self-determination,

competence and encouraging positive, desirable behaviors, while implicitly suppressing negative behaviors (Rega, 2011-2012). This statement is supported by Aghababaei *et al.* (2013: 194) who argue that self-rewards may be simple or intangible such as mentally congratulating oneself for an important accomplishment, or more concrete like a special vacation at the completion of a difficult project. Inferring from Houghton *et al.* (2012:218), individuals should link self-set rewards to goal attainment, because rewards set by an individual along with self-set goals, can aid significantly in energising the effort necessary to accomplish the goals (Mahoney & Arnkoff, 1978; 1979; Manz & Sims, 1980; Manz & Neck, 2004)

**Table 4.14: Self-observation**

Self-observation		Frequency distribution					Descriptive		Latent factor	
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Agree/Strongly agree	Mean	Standard deviation	Factor loading
I keep track of how well I am doing at work.	n	1	3	18	53	32	79.44%	4.05	0.82	0.867
	%	0.93%	2.80%	16.82%	49.53%	29.91%				
I am aware of how well I am doing as I perform a task.	n	1	0	14	54	38	85.98%	4.20	0.73	0.882
	%	0.93%	0.00%	13.08%	50.47%	35.51%				
I pay attention to how well I am doing in work.	n	1	0	11	55	40	88.79%	4.24	0.71	0.880
	%	0.93%	0.00%	10.28%	51.40%	37.38%				
I keep track of my progress on projects.	n	1	4	7	49	46	88.79%	4.26	0.82	0.726
	%	0.93%	3.74%	6.54%	45.79%	42.99%				

*Keeping track of how you doing at work*

Table 4.14 presents the frequencies of self-observation, itself a sub-component of self-leadership. The result on this concept demonstrate that 88.79% of respondents pay attention to how well they are doing at work, with 88.79% of the respondents keeping track of their progress on projects, while 85.98% of the respondents agree that they are aware of how well they are doing as they perform tasks, and 79.44% of the respondents keep track of how well they are doing at work. This means that Eskom engineers monitor the quality of their work execution and track/document their milestones, just as they are conscious about their personal development on the task. Self-observation centers on the observation of our own behaviors to obtain information about them, it involves self-controlling the individual to increase one’s self-awareness concerning the questions

on which situations, how often, when, how and why (internal and external effects) they perform certain tasks (Alves *et al.*, 2006:338) and it supports self-goal setting, which involves identifying targets for our efforts, among other strategies

**Table 4.15: Self-cueing**

Self-cueing		Frequency distribution						Descriptive		Latent factor
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Agree/Strongly agree	Mean	Standard deviation	Factor loading
Uses written notes to remind myself of what I need to accomplish.	n	3	9	23	38	34	67.29%	3.85	1.05	0.902
	%	2.80%	8.41%	21.50%	35.51%	31.78%				
Uses concrete reminders to help focus.	n	4	10	27	38	28	61.68%	3.71	1.07	0.932
	%	3.74%	9.35%	25.23%	35.51%	26.17%				
Diarises all future work related activities.	n	4	8	15	47	32	73.83%	3.90	1.04	0.864
	%	3.74%	7.48%	14.02%	43.93%	29.91%				

*Diarising written notes for reminder*

As illustrated in the self-cueing statements in Table 4.15, 74.53% of the respondents diarize all their future work-related activities, with 67.29% of the respondents using written notes to remind themselves of what they need to accomplish, whilst 61.68% use concrete reminders to help them focus on things they need to accomplish. Our inference from these findings is that technicians, technologists and engineers at Eskom, Bloemfontein monitor their personal engagement and development on particular tasks through the documentation and rehearsal or practice of desired behaviors before actual performance, thus avoiding costly miscues. These findings buttress observations in earlier studies that self-cueing (the rehearsal, practice or external signaling) includes certain things to be remembered or made with the use of physical objects to avoid costly miscues (Houghton & Neck, 2002: 673; Alves *et.al*, 2006: 341; Neck & Houghton, 2006:270). Environmental cues, such as to-do lists, Post it notes, or inspirational wall hangings, can serve as an effective means of keeping attention and effort focused on the task at hand (Houghton & Neck, 2006; Neck & Manz, 2010). Therefore, individuals can optimise their performance while



managing time efficiently through the application of the above noted strategies for augmenting one's memory.

**Table 4.16: Self-punishment**

Self-punishment		Frequency distribution						Descriptive		Latent factor
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Agree/Strongly agree	Mean	Standard deviation	
Tends to beat myself up when I perform poorly.	n	11	16	38	30	12	39.25%	3.15	1.13	0.691
	%	10.28%	14.95%	35.51%	28.04%	11.21%				
Tends to be tough on myself in my thinking.	n	6	13	32	39	17	52.34%	3.45	1.07	0.742
	%	5.61%	12.15%	29.91%	36.45%	15.89%				
Tends to have self-pity when I don't perform well.	n	14	29	26	26	12	35.51%	2.93	1.22	0.747
	%	13.08%	27.10%	24.30%	24.30%	11.21%				
Often express self-assessment when I underperform on a task.	n	10	25	28	30	14	41.12%	3.12	1.19	0.736
	%	9.35%	23.36%	26.17%	28.04%	13.08%				
Feels guilty when I perform a task poorly.	n	6	7	14	47	33	74.77%	3.88	1.10	0.591
	%	5.61%	6.54%	13.08%	43.93%	30.84%				
Openly express displeasure with myself when I have not done well.	n	3	15	28	41	20	57.01%	3.56	1.04	0.766
	%	2.80%	14.02%	26.17%	38.32%	18.69%				

*Feeling guilty and expressing displeasure when performing a task poorly*

Table 4.16, considers self-punishment. It shows that 74.77% of the respondents feel guilty when they perform a task poorly and 57.01% openly express displeasure with themselves when they have not done well, while 52.34% of the respondents tend to be tough on themselves in their thinking. These negative feelings demonstrate that Eskom technicians, technologists and engineers monitor their own development and performance. They do so by applying self-correcting interventions that involve introspection and negative feelings towards their underperformance. These negative feelings associated with underperformance resonate with Houghton *et al.* (2012:218) observation that excessive self-punishment, including harsh and unrealistic self-criticisms for sub-optimal performance, which also lead to feelings of guilt and inadequacy, is



often counterproductive and should be avoided (Neck & Houghton, 2006; Manz & Sims, 2001). Self-punishment (self-correcting feedback) and self-reinforcement (self-criticism) are essentially opposite sides of the same coin; both involve self-applied consequences (positive for self-reinforcement and negative for self-punishment) for individual behaviors on the job (Manz, 2015:135).

However, when those who have neutral opinions, those without feelings of displeasure or who are not tough with themselves for their underperformance were considered, a sizable number of the engineering division employees seemed to condone under performance. For instance, 42.99% had no feelings of displeasure about their underperformance, while 47.66% were not tough with themselves. Under performer tags are considered taboo, and most of the employees hesitate to accept the fact that they have fallen into this category. An appraisal system is not always very authentic and employees do not get what they truly deserve, however, not coping with performance review is the critical mistake employees do and it prevents them from being prepared for the future and learning the rules of the game, for the sooner this happens, the better. The journey of accepting a bad performance review and learning ways to improve is growth experience, which builds the foundation for a rewarding future career (Dutta, 2014).

#### *Self-assessment when underperforming on a task*

The findings also demonstrate that 41.12% of the engineering division staff at Eskom, Bloemfontein agrees that they often express self-assessment when they underperform on a task. Such self-assessment can be conceived as positive introspection that can contribute to the successful accomplishment of a task. This can however be contrasted with the remaining 58.88% who did not practice such introspection. On a positive note, positive assessment may direct one's behaviors to desired ways (Hardy, 2007:55) in the event that one cannot achieve the specified goals. Many people frequently use this strategy in their daily lives, even though this strategy can decrease a person's motivation and creativity (Houghton & Neck, 2002:672). Thus, using a self-punishment strategy frequently should be avoided (D'Intino *et al*, 2007:105). In general this self-assessment strategy produce positive effects on performance and other desirable outcomes (with the exception of self-punishment) for a variety of types of individuals such as trainees, college students, and employees (Neck & Houghton, 2006:270; Prussia, Anderson, & Manz, 1998:523; Stewart *et al.*, 2011:185).

4.6.2.2. Natural Rewards

**Table 4.17: Focusing on natural rewards**

Self-punishment		Frequency distribution						Descriptive		Latent factor
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Agree/Strongly agree	Mean	Standard deviation	Factor loading
Focus thinking on the pleasant rather than unpleasant.	n	2	5	26	42	32	69.2 %	3.91	0.95	0.754
	%	1.87%	4.67%	24.30%	39.25%	29.91%				
Surround myself with objects and people that bring out desirable behaviour.	n	1	4	11	52	39	85.1 %	4.16	0.83	0.807
	%	0.93%	3.74%	10.28%	48.60%	36.45%				
I try to work hard in a way that I enjoy.	n	0	0	8	48	51	92.5 %	4.40	0.63	0.696
	%	0.00%	0.00%	7.48%	44.86%	47.66%				
I seek out activities in my work that I enjoy doing.	n	2	4	17	43	41	78.5 %	4.09	0.93	0.628
	%	1.87%	3.74%	15.89%	40.19%	38.32%				

*Personal development and growth*

Table 4.17 shows that 92.55% of the respondents agree that they try to work hard in ways that they enjoy, 85.05% surround themselves with objects and people that bring out desirable behavior, 78.5% seek out activities that they enjoy doing in their work, while 69.16% of the respondents focus their thinking on pleasant rather than unpleasant. These results indicate that Eskom Engineers seem to have a positive orientation towards the work itself, work activities, the work environment and their own thought processes. These engineering employees seek personal development and growth by creating situations that render positive energy, ground their thoughts in building intrinsic incentives and build more pleasant and enjoyable features into the task itself. These positive affirmations and acknowledgement of the work itself, tasks and the work environment is consistent with natural reward strategies. As literature suggests, natural reward strategies allow individuals to find enjoyment in a given task or activity, leading to increased feelings of competence, self-control, and a sense of purpose (Houghton *et al.*, 2012:218). Our inference from our findings are that the Eskom staff act as self-leaders who strive to redesign their

tasks, and/or how they think about them, in ways that contribute to their feelings of more self-control, competence, and/or purposefulness.

In relation to establishing feelings of purpose, adopting the aforementioned strategies is likely to be more effective by making goals and naturally motivating tasks consistent with the individual employees' personal well-being and values. For example, literature suggests that a more positive relationship to tasks that are otherwise not naturally rewarding, such as nurses' bathing of patients, can be fostered by an intentional focus on a valued aspect of the work that provides meaningful purpose, such as striving to increase patient comfort (Manz, 2015:135). In general, natural reward strategies seek to increase of feelings of competence and self-determination through an awareness and focus on enjoyable task features, which eventually increase performance of task-related behaviors (Manz & Sims, 2001; Manz & Neck, 2004; Neck & Houghton, 2006).

#### 4.6.2.3. Constructive Thought

**Table 4.18: Self-talk**

Self-talk		Frequency distribution					Descriptive		Latent factor	
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Agree/Strongly agree	Mean	Standard deviation	Loading
I sometimes talk to myself to help deal with difficult problems.	n	4	7	22	43	31	69.16%	3.84	1.04	0.947
	%	3.74%	6.54%	20.56%	40.19%	28.97%				
I talk to myself to deal with difficult situations.	n	6	7	22	42	30	67.29%	3.78	1.10	0.947
	%	5.61%	6.54%	20.56%	39.25%	28.04%				

#### *Mental reaction to negative thoughts when dealing with difficult problems*

As indicated in Table 4.18, a large proportion (69.16%) agree that they find themselves talking out loud or in their head when dealing with difficult problems, which they would be facing and 67.29% find themselves talking out loud or in their heads, to work through difficult situations or tasks. This shows that engineers at Eskom assess their work execution through inadvertent covert behavioral patterns and mentally reactions to negative thoughts by fostering and encouraging

optimistic self-dialogues, and engendering autonomy and subjective wellbeing (Rega, 2011-2012). These thought processes cohere with the view that self-talk (self-dialogue) by individuals occurs in their mind on a level that cannot be observed (Manz, 1992; Neck & Houghton, 2006:270) although the verbalisation of thoughts seems more overt than mere psychological processes.

Despite the fact that people who talk to themselves may not be considered mentally stable and hence unwelcomed in many cultures, it is known that most of the people talk to themselves quite often. Our findings on self-talk mirror other findings in literature where individuals talk to themselves positively and insinuatingly, depending on their beliefs and experiences created in their psychological world (Godwin, Neck & Houghton, 1999:153), which help to encourage them to achieve their goals. According to Aghababaei *et al.* (2013: 195) self-talk is defined as what people covertly tell themselves (Neck & Manz, 1996) and involves mental self-evaluations and reactions, which may be linked to job performance. Nevertheless, by carefully analysing self-talk patterns, negative or pessimistic self-talk can be suppressed or eliminated and replaced with more optimistic self- dialogues (Seligman, 1991).

### *Evaluating assumptions*

Table 4.19 illustrate that 79.44% of respondents mentally evaluate the accuracy of their own beliefs, with 68.22% of the respondents articulating and evaluating their own assumptions and 67.29% thinking about their own beliefs and assumptions. It means engineers at Eskom monitor task-related or work environment based philosophies and assumptions, and assuming that such self-evaluations trigger rational action, these cogitative processes result in self-autonomy and psychological wellbeing. These findings on self-reflection and self-meditation are supported by Rega (2012) whose study on how to improve self-leadership performance shows that continuous mental engagement and practice leads to patterns of habitual thinking, which increases development of mental performance, positive affect or decreased negative affect (nervousness), increase job satisfaction, self-efficacy, creativity and innovation and psychological empowerment. All the three aforementioned mental qualities constitute constructive thought processes which are closely associated with the optimal work performance of engineers. Aghababaei *et al.* (2013: 195) argues that constructive thought pattern strategies are designed to facilitate the formation of constructive thought patterns and habitual ways of thinking that can impact positively on performance (Manz & Neck, 2004). Our inference from this study is that, constructive thought pattern strategies may include identifying and replacing dysfunctional beliefs and assumptions.

**Table 4.19: Evaluating beliefs and assumptions**

Evaluating beliefs and assumptions		Frequency distribution					Descriptive		Latent factor	
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Agree/Strongly agree	Mean	Standard deviation	Factor loading
Think about my own beliefs and assumptions.	n	2	6	27	43	29	67.29%	3.85	0.95	0.852
	%	1.87%	5.61%	25.23%	40.19%	27.10%				
I mentally evaluate the accuracy of my own beliefs.	n	2	1	19	53	32	79.44%	4.05	0.83	0.917
	%	1.87%	0.93%	17.76%	49.53%	29.91%				
I articulate and evaluate my own assumptions.	n	7	5	22	46	27	68.22%	3.76	1.09	0.705
	%	6.54%	4.67%	20.56%	42.99%	25.23%				

#### 4.6.3. THE INFLUENCE OF LOCUS OF CONTROL ON JOB PERFORMANCE OF ESKOM ENGINEERS

This section evaluates locus of control of Eskom engineers on job performance in their working environment. Results regarding this are presented in Table 20.

**Table 4.20: Influence of locus of control on job performance**

Influence of locus of control on job performance		Frequency distribution					Descriptive		Latent factor	
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Agree/Strongly agree	Mean	Standard deviation	Factor loading
Takes note of information that can be used to create positive outcome.	n	0	1	5	58	43	94.39%	4.34	0.61	0.656
	%	0.00%	0.93%	4.67%	54.21%	40.19%				
Self-confidence assists me to accomplish tasks on my own.	n	0	1	3	52	50	96.23%	4.42	0.60	0.727
	%	0.00%	0.94%	2.83%	49.06%	47.17%				
Self-confidence assists me to accomplish tasks with less supervision.	n	0	0	5	53	49	95.33%	4.41	0.58	0.755
	%	0.00%	0.00%	4.67%	49.53%	45.79%				

<b>Making effort improves capabilities of employees.</b>	n	0	1	4	57	44	95.28%	4.36	0.60	0.602
	%	0.00%	0.94%	3.77%	53.77%	41.51%				
<b>Being inquisitive helps to accomplish tasks successfully.</b>	n	1	1	7	51	47	91.59%	4.33	0.72	0.674
	%	0.93%	0.93%	6.54%	47.66%	43.93%				
<b>Engaging in activities that help my work situation has made job completion rewarding.</b>	n	2	0	8	59	38	90.65%	4.22	0.74	0.648
	%	1.87%	0.00%	7.48%	55.14%	35.51%				
<b>Performing well at work leads to positive outcomes.</b>	n	13	16	27	20	31	47.66%	3.37	1.36	0.226
	%	12.15%	14.95%	25.23%	18.69%	28.97%				
<b>Have a great deal of influence on the achievements of my department.</b>	n	0	1	19	50	37	81.31%	4.15	0.74	0.429
	%	0.00%	0.93%	17.76%	46.73%	34.58%				
<b>I volunteer to carry out task activities that are not part of my job.</b>	n	2	3	14	53	35	82.24%	4.08	0.86	0.330
	%	1.87%	2.80%	13.08%	49.53%	32.71%				
<b>Cooperating with others in the organisation helps to get tasks done successfully.</b>	n	0	0	4	37	66	96.26%	4.58	0.57	0.596
	%	0.00%	0.00%	3.74%	34.58%	61.68%				

### Self-confidence when performing tasks

Table 4.20 presents the influence of locus of control on job performance. 96.23% of the respondents agree that having self-confidence when performing tasks assisted in the accomplishment of tasks on their own, while 95.33% agree that having self-confidence helped them accomplish tasks with less supervision. This edge to have a positive impression in the eyes of the organisation finds support from Stapleton *et al.* (2015:2), in his study on boosting morale and improving performance in the nursing sector, who claims that organisational success and an employee's ability to thrive are influenced by a self-leader's ability to ignite outstanding performance. However, Filippin *et al.* (2011:2) define self-confidence as the beliefs over one's unknown level of cognitive ability. He claims that self-confidence affects utility indirectly through the choice of task, which determines how much human capital the agent gets, and that there is no direct influence as in case the where the agent enjoys thinking that his ability is high.

### *Cooperation in the organisation*

About 96.26% agree that cooperating with others in the organisation assists in getting tasks accomplished successfully. This high and positive response to teamwork shows that teams can expand the outputs of individuals through collaboration. Employees who are working in teams become the standard for the organisation (Alie, Beam & Carey, 1998). It is the mean of improving man-power utilisation and potentially raising performance of individual. Support from upper level management often spurs an employee to work confidently in a team and that way increase the productivity of the organisation (Manzoor *et al.*, 2011:111).

### *Making an effort*

Furthermore, 95.28% agree that making an effort improves the capabilities of employees on the job. This shows that any initiatives of improvement, which are taken by management, cannot be fruitful without a willful involvement and engagement of employees. Markos *et al.* (2010:89) argues that from the last quarter of the twentieth century onwards, concepts such as employee commitment and Organisational Citizenship Behavior (OCB) started to appear on the ground and to argue that efficiency and productivity lie within the employees' ability and commitment. Thus a manager's eye is now on how to keep employees engaged in their job and employers now realise that by focusing on employee engagement, they can create a more efficient and productive workforce.

### *Taking note for positive future outcomes*

About 94.39% of the respondents agree that they take note of information that can be used to create positive outcomes in the future. Note-taking is a useful external memory device in today's world. Schoen (2012) in his study of effects of method and context of note-taking on memory reports that note-taking is a cognitively demanding process that requires the skills of listening, cognitive processing, and recording content in text form (Maydosz & Raver, 2010; Peverely, Ramaswamy, Brown, Sumowski, Alidoost, Garner, 2007). In addition, it uses both working memory and executive functions (Katayama & Robinson, 2000) that are important to transcription fluency.



### *Activities improvement*

The majority of the respondents (90.65%) agree that engaging in activities that will improve their work situation has made job completion more rewarding. This shows that innovation is positively influenced when employees expected rewards. This is supported by Pandelica (2014:10) who claims that employees exhibiting high-levels of Internal locus of control perform tasks not because they necessarily feel obligated, as suggested by OST (Eisenberger *et al.*, 1986), but rather because they find the completion of a task self-rewarding (Stewart *et al.*, 2011).

### *Being inquisitive to accomplish task successfully*

Moreover, 91.59% of the respondents agree that being inquisitive and trying to figure out why things turned out the way they did helps them accomplish tasks successfully. This result shows that locus of control of Eskom engineers positively influences their job performance. Several studies support the notion that individuals with internal locus of control exert greater effort on the job and are subsequently better performers than individuals with external locus of control (Asgari & Vakiri, 2012:2556; Muhonen & Torkelson, 2004:21; Thomas *et al.* 2006:107). The measure of performance within these studies is therefore, a key concern.

For instance, it has been found out that locus of control is related to various important work outcomes including job satisfaction and job performance (Thomas *et al.*, 2006:107). The exercise of internal or external of locus of control could be a consequence of the leadership dynamics and the amount and nature of free reign Eskom engineers are given during performance of their work. Thus, the belief in and exercise of external locus of control could be tied to an authoritarian leadership style which complicates engineers at the middle and operational levels' abilities to take charge of their work environment, allowing them to connect the effort spent on tasks to their job performance but rather to external circumstances. However, if engineers enjoy a great deal of autonomy on their job, they will be more inclined to conceive the direct consonance of their individual effort and their job performance (Rambe & Modise, 2016). Researchers have also found that individuals with an internal work locus of control, generally have greater control of the work environment, perform better due to their control of outcomes, and have lower levels of job stress (Chen & Silverthorne, 2008:572). Furthermore, other authors have reported a strong relationship between perceived work control and certain job-related factors such as job satisfaction and emotional distress (Wang *et al.*, 2010:761). Our intuition, therefore, is that the more locus of



control Eskom engineers have on their work, the higher the chances of their satisfaction on the job and the more they would attribute their success to individual and collective effort.

A correlation test was also performed to test the influence of locus of control on job performance. Since the locus of control variables are not normally distributed, the Spearman’s rho correlation coefficient was used. These correlation tests determined whether or not there is a relationship between locus of control and each of the performance statements. On one hand, if there is a positive relationship between the 2 variables, the correlation coefficient will be positive and it will range between 0 and 1. The closer the value is to 1 the stronger the relationship between the 2 values. On the other hand, if there is a negative relationship, the correlation coefficient will be negative and it will range between -1 and 0. The closer the value is to -1 the stronger the negative relationship between the 2 values. For interpretations and conclusions on whether the two variables are correlated, the p-value is used. The p-value is compared to a significance level of 0.1. If the p-value is less than 0.1 we conclude that a significant relationship exists between the variables, whereas if it is greater than 0.1, then there is no significant relationship between the variables. It is important to highlight that all correlation coefficients are interdependency measures that do not express a causal relationship between two variables. A discussion of each of the relationships between locus of control and job performance (visualising performance) statements is given below (Table 4.21).

**Table 4.21: Correlation coefficients between performance and locus of control**

Variables		I use my imagination to picture myself performing well on important tasks.	I visualise myself successfully performing a task before I do it.	Sometimes I picture in my mind a successful performance before I actually do a task.	I purposefully visualise myself overcoming the challenges I face.	I often mentally rehearse the way I plan to deal with a challenge before I actually face the challenge.
<b>Locus of control</b>						
<b>Internal locus of control</b>	Coefficient	0.423	0.474	0.473	0.363	0.369
	P-value	0.000	0.000	0.000	0.000	0.000
<b>Locus of control</b>	Coefficient	0.298	0.397	0.363	0.278	0.288
	P-value	0.002	0.000	0.000	0.004	0.003

The above results show that internal locus of control is positively related with the visualising performance statements and the correlation coefficients range from 0.363 to 0.474. All 5 correlations coefficients are statistically significant, thus indicating that there are significant relationships between locus of control and each of the visualising job performance statements. Previous studies investigating the relationship between locus of control and job performance showed a modest but significant relationship between locus of control and job performance (Asgari & Vakiri, 2012:2556; Muhonen & Torkelson, 2004:21; Thomas *et al.*, 2006:107). Each of the study relationships are discussed below.

Relationship between internal locus of control and Statement 1 - Use my imagination to picture myself performing well on important tasks.

The correlation coefficient is 0.423 and the p-value is 0.000. This indicates that there is a positive significant relationship between internal locus of control and an individual's use of their imagination to picture themselves performing well on important tasks. This means that a high internal locus of control is associated with a high/positive use of imagination to picture themselves performing well. These results cohere with those of Ekman and Hoff (2011:28) where they found support for an association between imagination to picture yourself performing well on important tasks and locus of control. The t-test analysis shows that employees low in imagination tend to regard life outcomes as dependent upon external factors, whereas employees high in imagination tend to regard personal control as the most prominent factor for life outcomes. A fair speculation would be that children that have high imagination earlier in life to a greater extent developed internal locus of control. They have come to the conclusion that the events and happenings in their life are much dependent upon their own actions and behavior (Rotter, 1966).

Relationship between internal locus of control and Statement 2 - I visualise myself successfully performing a task before I do it.

The correlation coefficient is 0.474 and the p-value is 0.000. This indicates that there is a positive significant relationship between internal locus of control and an individual's visualisation of themselves successfully performing a task before doing it. This means that a high internal locus of control is associated with a greater visualisation of successful performance. This finding is rejected by Ziemkiewicz *et al.* (2012) in their study of how visualisation layout relates to locus of

control and other personality factors, in which they demonstrate that there is indeed a correlation between the two, as participants with an internal locus of control perform more poorly with visualisations that employ a containment metaphor, while those with an external locus of control perform well with such visualisations. These results provide evidence for the externalisation theory of visualisation.

Relationship between internal locus of control and Statement 3 - Sometimes I picture in my mind a successful performance before I actually do a task.

The correlation coefficient is 0.473 and the p-value is 0.000. This indicates that there is a positive significant relationship between internal locus of control and an individual picturing a successful performance in their mind before they actually do the task. This means that a high internal locus of control is associated with a bigger picturing of a successful performance in mind. Thomas *et al.* (2006:107), in their study of the relationship of locus of control and several organisational variables including performance, reject the point of picturing of a successful performance in mind but claim that locus of control is correlated with performance, with internals.

Relationship between internal locus of control and the statement I purposefully visualise myself overcoming the challenges I face.

The correlation coefficient is 0.363 and the p-value is 0.000. This indicates that there is a positive and significant relationship between internal locus of control and purposeful visualisation of the overcoming of challenges faced by an individual. This means that a high internal locus of control is associated with a high/positive purposeful visualisation on overcoming challenges.

Relationship between internal locus of control and the statement I often mentally rehearse the way I plan to deal with a challenge before I actually face the challenge.

The correlation coefficient is 0.369 and the p-value is 0.000. This indicates that there is a positive and significant relationship between internal locus of control and an individual's mental rehearsal of the way they plan to deal with a challenge before they actually face the challenge. This means

that a high internal locus of control is associated with a greater mental rehearsal of the way the individual deals with a challenge. This finding adheres with Shojaee and French's (2014) study on the relationship between mental health components and locus of control in youth, where the statistical analysis of data revealed that there was a positive and linear association between the internal locus of control and all six well-being components, which include purpose in life, personal growth, environmental mastery, autonomy, self- acceptance and positive relationship with others. Findings from the current research demonstrated that individuals who have an internal tendency in their locus of control had higher levels of mental rehearsal than individuals with external locus of control.

#### 4.6.4. IN WHAT WAY DOES SELF-LEADERSHIP OF ESKOM ENGINEERING WORKFORCE IMPACT ON THEIR JOB PERFORMANCE?

This section evaluates the impact of self-leadership on job performance. This is done in order to answer the fourth research question which seeks to investigate the way in which self-leadership impact on the Eskom engineers' job performance. The results are presented in Table 4.22.

**Table 4.22: Visualising successful performance**

Visualising successful performance		Frequency distribution						Descriptive		Latent factor
		Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree	Agree/Strongly agree	Mean	Standard deviation	Factor loading
Use imagination to picture myself performing well on important tasks.	n	0	3	17	52	35	81.3%	4.11	0.77	0.645
	%	0.0%	2.8%	15.9%	48.6%	32.7%				
Visualise myself successfully performing a task.	n	0	1	13	54	39	86.9%	4.22	0.69	0.854
	%	0.0%	0.9%	12.2%	50.5%	36.5%				
I picture a successful performance in my mind.	n	0	2	14	52	39	85.1%	4.20	0.73	0.852
	%	0.0%	1.9%	13.1%	48.6%	36.5%				
Visualise myself overcoming challenges.	n	1	6	19	48	33	75.7%	3.99	0.90	0.833
	%	0.9%	5.6%	17.8%	44.9%	30.9%				
	n	2	5	8	54	38	86.0%	4.13	0.88	

<b>Mentally rehearse the way I plan to deal with challenges.</b>	%	1.9%	4.7%	7.5%	50.5%	35.5%				0.64 3
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*Visualising and mentally rehearse performance*

As shown in Table 4.22, an overwhelming majority (86.92%) visualise themselves successfully performing a task, with 85.98% mentally rehearsing the way they plan to deal with challenges before they actually face the challenges, 85.05% picturing a successful performance in their minds, 81.31% of the respondents using imagination to picture themselves performing well and 75.7% agreeing that they purposefully visualise themselves overcoming the challenges they face. This indicates that Eskom engineers monitor their execution of tasks or activities by envisioning and visualising outcomes prior to the actual performance through the use of mental imagery and symbols (or imaginary practice, covert rehearsal, symbolic rehearsal, and mental practice). This is consistent with Rega’s (2012) study on to improve self-leadership performance where he reported that continuing practice leads to patterns of habitual thinking which increase development of mental performance, heightens positive affect and decrease negative affect (nervousness), and increases job satisfaction, self-efficacy, creativity and innovation and psychological empowerment.

The first step to testing the impact of self-leadership on job performance is to do a correlation test between self-leadership and job performance. Since all variables are not normally distributed, the Spearman’s rho correlation coefficient was used. These correlation tests determine whether or not there is a relationship between self-leadership and job performance and also between the components of self-leadership and performance. On one hand, if there is a positive relationship between the 2 variables, the correlation coefficient will be positive and it will range between 0 and 1. The closer the value is to 1 the stronger the relationship between the 2 values. On the other hand, if there is a negative relationship the correlation coefficient will be negative and it will range between -1 and 0. The closer the value is to -1 the stronger the negative relationship between the 2 values.

The correlation results are presented in Table 4.23 and a discussion of the correlation between self-leadership components and each of the visualising performance statements is given below.

**Table 4.23: Correlation coefficients of self-leadership and job performance**

Variables		I use my imagination to picture myself performing well on important tasks.	I visualise myself successfully performing a task before I do it.	Sometimes I picture a successful performance in my mind a before I actually do the task.	I purposefully visualise myself overcoming the challenges I face.	I often mentally rehearse the way I plan to deal with a challenge before I actually face the challenge.
<b>Self-goal setting</b>	Correlation	0.272	0.371	0.322	0.287	0.370
	P-value	0.005	0.000	0.001	0.003	0.000
<b>Self-reward</b>	Correlation	0.328	0.430	0.426	0.310	0.325
	P-value	0.001	0.000	0.000	0.001	0.001
<b>Self-observation</b>	Correlation	0.291	0.329	0.339	0.299	0.356
	P-value	0.002	0.001	0.000	0.002	0.000
<b>Self-cueing</b>	Correlation	0.234	0.267	0.242	0.112	0.283
	P-value	0.015	0.005	0.012	0.251	0.003
<b>Self-punishment</b>	Correlation	0.187	0.068	0.134	0.083	0.145
	P-value	0.054	0.487	0.170	0.394	0.135
<b>Behaviour focused</b>	Correlation	0.358	0.416	0.448	0.298	0.442
	P-value	0.000	0.000	0.000	0.002	0.000
<b>Natural rewards</b>	Correlation	0.106	0.130	0.258	0.144	0.155
	P-value	0.279	0.182	0.007	0.139	0.110
<b>Self-talk</b>	Correlation	0.108	0.174	0.151	0.235	0.476
	P-value	0.268	0.074	0.121	0.015	0.000
<b>Evaluating beliefs and assumptions</b>	Correlation	0.041	0.182	0.183	0.270	0.345
	P-value	0.674	0.061	0.060	0.005	0.000
<b>Constructive thought</b>	Correlation	0.090	0.203	0.184	0.310	0.434
	P-value	0.355	0.036	0.058	0.001	0.000
<b>Self-leadership</b>	Correlation	0.337	0.391	0.445	0.341	0.481
	P-value	0.000	0.000	0.000	0.000	0.000

Relationship between self-leadership (and each of its components) and using imagination to picture myself performing well on important tasks.

The correlation coefficients of self-goal setting, self-reward, self-observation, self-cueing, self-punishment, behaviour focused and overall self-leadership are 0.272, 0.328, 0.291, 0.234, 0.187, 0.358 and 0.337, respectively, and their p-values are below the significance level of 0.1. This

indicates that there is a positive significant relationship between self-goal setting and use of imagination to picture performance on important tasks, between self-reward and use of imagination to picture performance on important tasks, between self-observation and use of imagination to picture performance on important tasks, between self-cueing and use of imagination to picture performance on important tasks, between self-punishment and use of imagination to picture performance on important tasks, between behaviour focused self-leadership and use of imagination to picture performance on important tasks as well as between overall self-leadership and use of imagination to picture performance on important tasks.

This means that a high self-leadership is associated with a greater use of imagination to picture oneself performing well. This is supported by Houghton *et al.*, (2012) in their argument that Individuals who visualise and mentally rehearse the successful performance of a task in advance are more likely to experience a successful performance of the actual task than those who visualise failure or other negative outcomes (Finke, 1989). Empirical research findings tend to support this assertion. For example, a meta-analysis of 35 empirical studies reported a significant positive effect for mental imagery on individual performance (Driskell, Copper, & Moran, 1994). Similarly, high/positive self-goal setting, self-reward, self-observation, self-cueing, self-punishment as well as behaviour focused self-leadership are associated with a greater use of imagination to picture performance on important tasks. This is supported by Mahembe *et al.* (2013) in their research of a confirmatory factor analytic study of a self-leadership measure in South Africa as they claim that self-leadership's behaviour-focused strategies are helpful for managing necessary but potentially unpleasant behaviours, such as studying for a professional certification exam or finishing a major work project, that are nonetheless instrumental for long-term goal attainments (Houghton & Neck, 2006; Neck & Manz, 2010).

Relationship between self-leadership (and its components) and the statement I visualise myself successfully performing a task before I do it.

The correlation coefficients of self-goal setting, self-reward, self-observation, self-cueing, behaviour focused, self-talk, evaluating beliefs and assumptions, constructive thought and overall self-leadership are 0.371, 0.43, 0.329, 0.267, 0.416, 0.174, 0.182, 0.203 and 0.391, respectively, and their p-values are below the significance level of 0.1. This indicates that there are positive significant relationships between self-goal setting, self-reward, self-observation, self-cueing,



behaviour focused, self-talk, evaluating beliefs and assumptions, constructive thought as well as between overall self-leadership and an individual's visualising themselves successfully performing a task before they do it. This also means that a high self-leadership is associated with greater use of visualising themselves successfully performing a task before they do it. This is supported by Houghton et al. (2012) where they accentuate that Individuals who visualise and mentally rehearse the successful performance of a task in advance are more likely to experience successful performance of the actual task than those who visualise failure or other negative outcomes (Finke, 1989). Similarly, high self-goal setting, self-reward, self-observation, self-cueing, behaviour focused, self-talk, evaluating beliefs and assumptions as well as constructive thought are associated with greater use of visualising oneself successfully performing a task before they do it.

Relationship between self-leadership (and its components) and Statement 3 - Sometimes I picture a successful performance in my mind before I actually do a task.

The correlation coefficients of self-goal setting, self-reward, self-observation, self-cueing, behaviour focused, natural rewards, evaluating beliefs and assumptions, constructive thought and overall self-leadership are 0.322, 0.426, 0.339, 0.242, 0.448, 0.258, 0.183, 0.184 and 0.445, respectively, and their p-values are below the significance level of 0.1. This indicates that there are positive significant relationships between self-goal setting, self-reward, self-observation, self-cueing, behaviour focused self-leadership, natural rewards, evaluating beliefs and assumptions, constructive thought as well as between overall self-leadership and an individual picturing in their mind a successful performance before they actually do a task. This means that a high self-leadership is associated with picturing a successful performance in one's mind before actually doing the task. Similarly, high self-goal setting, self-reward, self-observation, self-cueing, behaviour focused, natural rewards, evaluating beliefs and assumptions as well as constructive thought are associated with a greater mental picturing of a successful performance before actually doing the task.

Relationship between self-leadership (and its components) and Statement 4 - I purposefully visualise myself overcoming the challenges I face.

The correlation coefficients of self-goal setting, self-reward, self-observation, behaviour focused, self-talk, evaluating beliefs and assumptions, constructive thought and overall self-leadership are 0.287, 0.310, 0.299, 0.298, 0.235, 0.270, 0.310 and 0.341, respectively, and their p-values are



below the significance level of 0.1. This indicates that there are positive relationships between self-goal setting and a purposeful visualisation by an individual on overcoming challenges faced, between self-reward and a purposeful visualisation by an individual on overcoming challenges faced, between self-observation and a purposeful visualisation by an individual on overcoming challenges faced as well as between behaviour focused self-leadership and a purposeful visualisation by an individual on overcoming challenges faced.

Furthermore, there are positive relationships between self-talk and a purposeful visualisation by an individual on overcoming challenges faced, between evaluating beliefs and assumptions and a purposeful visualisation by an individual on overcoming challenges faced, between constructive thought and a purposeful visualisation by an individual on overcoming challenges faced as well as between overall self-leadership and a purposeful visualisation by an individual on overcoming challenges faced. This means that a high self-leadership is associated with a positive purposeful visualisation on overcoming challenges. This finding coheres with Semerci's (2010) study on the relationships between self-leadership and critical thinking that shows that individuals who are self-leaders will always seek to find and overcome challenges in an effort to increase feelings of competence and self-determination. Similarly, high self-goal setting, self-rewarding, self-observation, behaviour focused, self-talking, evaluating beliefs and assumptions as well as constructive thoughts are associated with a greater purposeful visualisation on overcoming challenges.

Relationship between self-leadership (and its components) and Statement 5 - I often mentally rehearse the way I plan to deal with a challenge before I actually face the challenge.

The correlation coefficients of self-goal setting, self-reward, self-observation, self-cueing, behaviour focused, self-talk, evaluating beliefs and assumptions, constructive thought and overall self-leadership are 0.370, 0.325, 0.356, 0.283, 0.442, 0.476, 0.345, 0.434 and 0.481, respectively, and their p-values are below the significance level of 0.1. This indicates that there are positive relationships between self-goal setting, self-reward, self-observation as well as self-cueing and an individual's mental rehearsal of the way they plan to deal with a challenge before they actually face the challenge. Furthermore, there are positive relationships between behaviour focused self-

leadership, self-talk, evaluating beliefs and assumptions, constructive thoughts as well as overall self-leadership and an individual's mental rehearsal of the way they plan to deal with a challenge before they actually face the challenge. This means that a high self-leadership is associated with a greater mental rehearsal of the way the individual deals with a challenge. Similarly, high self-goal setting, self-reward, self-observation, self-cueing, behaviour focused, self-talk, evaluating beliefs and assumptions as well as constructive thought are associated with a greater mental rehearsal of the way the individual deals with a challenge.

#### 4.6.5. COMBINED EFFECTS OF SELF-LEADERSHIP AND LOCUS OF CONTROL ON JOB PERFORMANCE.

Having established the information above, the next step was determining the relationship between self-leadership, locus of control and job performance. After determining that there are significant correlations between self-leadership and job performance as well as between locus of control and job performance, the following regression equations were estimated.

A regression equation with job performance as a dependent variable and locus of control as the independent variable was created. This regression sought to determine the impact that locus of control has on job performance. For this regression, a summated construct for job performance was constructed where the responses for the 5 individual performance statements were combined to make one variable. This was done to establish a dependent variable that is interval in nature and allows one to estimate a simple linear regression equation. The results are reported in the table below (Table 4.24).

**Table 4.24: Regression results (locus of control only)**

Dependent variable: Performance	Unstandardised		t-statistic	p-value
	Coefficients	Std. Error		
Intercept	8.683	2.675	3.246	0.002
Locus of control	0.157	0.035	4.499	0.000
R Square	0.162			

The results above show that locus of control has a positive impact on job performance. The coefficient, 0.157, means that an improvement on locus of control by 1% leads to a 0.157% increase in job performance. R squared is 0.162, which means that about 16.2% of the variation

in job performance is explained by locus of control. This is supported by Asiedu-Appiah and Addai's study (2014:53) whose regression analysis examined the existence of a link between employees' locus of control and contextual performance measures. The analysis revealed a very significant relationship between employees' locus of control and contextual performance. A regression coefficient of 0.407 was obtained at a significance level of 0.00. This implies that the relationship between locus of control and contextual performance, although not very strong, is very significant. The same study also concluded that that employees with higher internal locus of control have higher contextual performance ratings than employees with external locus of control.

A regression equation with job performance as a dependent variable and self-leadership as the independent variable was constructed. This regression sought to determine the impact that the components of self-leadership have on job performance. The results are reported in the table below (Table 4.25).

**Table 4.25: Regression results (self-leadership components)**

Dependent variable: Performance	Unstandardised		Standardised Coefficients	t-statistic	p-value
	Coefficients	Std. Error			
Intercept	9.136	1.782		5.127	0.000
Behaviour focused	0.104	0.023	0.418	4.562	0.000
Constructive thought	0.167	0.074	0.206	2.246	0.027
Adjusted R Square	0.277				

The results above show that behaviour focused self-leadership and constructive thought are the only significant independent variables. They have a positive impact on job performance. Since self-leadership is conceptualised as an intrapersonal process for influencing oneself (Manz, 1986; Manz & Neck, 2004, Sahin, 2011:1788), it is not surprising that previous research has shown that each component of self-leadership contributes to performance (Neck and Houghton, 2006). For example, Neck (1993) found that individuals who received the training of constructive thought pattern strategies experienced enhanced states of positive affect (enthusiasm) and job satisfaction as well as a decreased state of negative affect (nervousness) relative to those not receiving the training. In another study, Sahin, (2011) show that self-leadership strategies had a significant effect on self-efficacy evaluations, which directly affects performance. Finally, according to Konradt *et al.* (2009), self-leadership's impact on individual performance is partially mediated by self-efficacy and instrumentality

The behaviour focused coefficient of 0.104, means that an improvement on behaviour focused self-leadership by 1% will lead to a 0.104% increase in job performance. Moreover, the constructive thought coefficient of 0.167, means that an improvement on constructive thought leadership by 1% will lead to a 0.167% increase in job performance. In other words, the more behaviour focused leadership manifests in the work environment, the better the job performance of employees and the more there is constructive thought in the work environment, the better the job performance. A study by Politis (2006) found out a direct, positive and significant relationship between self-leadership behavioural-focused strategies and job satisfaction. It has usually been suggested that an individual who exhibits self-leadership behaviour is more likely to improve his or her performance and thus, organisational performance, than an individual who does not exhibit self-leadership behaviours (Neck and Houghton, 2006; Neck and Manz, 1996).

The standardised coefficients show the marginal contributions of each variable to job performance and they help determine which of the independent variables is the most important. Behaviour focused leadership has a standardised coefficient of 0.418 and constructive thought has a standardised coefficient of 0.206. This means that behaviour focused leadership has a larger contribution to job performance than constructive thought. The R square value is 0.277, which means that about 27.7% of the variation in job performance is explained by behaviour focused leadership and constructive thought.

A regression equation with job performance as a dependent variable and both locus of control and self-leadership as the independent variables was constructed. The results are reported in the table below (Table 4.26).

**Table 4.26: Regression results (both locus of control and self-leadership)**

Dependent variable: Performance	Unstandardised		Standardised Coefficients	t-statistic	p-value
	Coefficients	Std. Error			
Intercept	4.319	2.600		1.661	0.100
Self-leadership	0.085	0.018	0.429	4.774	0.000
Locus of control	0.086	0.035	0.219	2.432	0.017
Adjusted R Square	0.299				

The results above show that self-leadership and locus of control are significant independent variables even though both they have a positive impact on job performance. The finding on how these concepts are connected to performance resonates with mainstream literature. This is

consistent with the literature review which reports that self-leadership is impossible without locus of control (in Adams *et al.*, 2008:109; McDevitt, Giapponi & Tromley, 2007:219). The self-leadership coefficient of 0.085, means that an improvement on self-leadership by 1% leads to a 0.085% increase in job performance. This findings corroborates evidence from mainstream literature on the significant role of self-leadership in improving organisational performance (Dewettinck & van Ameijde, 2011: 284; Kalyar, 2011:20; Schermuly & Meyer, 2011:252).

Moreover, the locus of control coefficient of 0.086, means that an improvement on locus of control by 1% will leads to a 0.086% increase in job performance. In other words, the more there is self-leadership the better the job performance of employees, and the more there is positive locus of control the better the job performance. Thomas *et al.* (2006:107) report a strong connection between employees' regulation/control of their actions (i.e. locus of control) and the consequences of those actions in the work environment (e.g. successful job performance). The standardised coefficients show the marginal contributions of each variable to job performance and assist in determining which of the independent variables is the most important. Self-leadership has a standardised coefficient of 0.429 and the locus of control has a standardised coefficient of 0.219. This means that self-leadership has a larger contribution to job performance than locus of control. The R square value is 0.299 which means that about 29.9% of the variation in job performance is explained by self-leadership and locus of control.

#### **4.7. SUMMARY OF THE CHAPTER**

The aim of this chapter was to present the results obtained from the data analysis and to discuss them. The results were presented in the form of tables and percentages. Mann-Whitney U tests and Kruskal-Wallis tests were used to determine the statistical significance of different variables. The strength of the relationship between variables were measured using Spearman's rho correlation coefficient and regression equations. A Cronbach's alpha coefficient were used to test if the variables constructed were reliable. For further analysis of these variables, a test to determine whether or not the variables are normally distributed was done. The next chapter presents the conclusion, recommendations for practice and policy, as well recommendations for future research.

## CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

### 5.1. INTRODUCTION

The previous chapter focused on an analysis and presentation of the empirical findings of the study to provide a deeper empirical knowledge on the combined effects of self-leadership and locus of control on job performance of Eskom engineers in Bloemfontein. The argument is that the Eskom engineering workforce does not only have to cooperate with and follow the lead of their superiors but rather should also demonstrate self-leadership by challenging or resisting problematic and inappropriate leadership strategies implemented by their leaders. The same findings demonstrated the difficulty of attaining self-leadership without recourse to internal locus of control and innovation (Adams *et al.*, 2008:109; McDevitt *et al.*, 2007:219). Self-leadership emphasises on one's intrinsic motivation to self-influence what, why, and how to perform work (Stewart *et al.*, 2011:185), thus it uncontestedly influences perceptions about one's capacity to influence their work-related outcomes (i.e. locus of control). For this reason, the study examined the combined effects of self-leadership and locus of control on the job performance of the Eskom engineering workforce. The findings of the previous chapter demonstrated that a combination of self-leadership and internal locus of control is critical to achieving a high job performance for the engineering workforce through increased proficiency, adaptation or proactivity, and improved ability to multi task in the face of competing tasks and work activities. The current chapter outlines the study's conclusion, recommendations, implications for policy and practice and implications for future research.

### 5.2. CONCLUSION BASED ON THE LITERATURE

Following a detailed review and synthesis of literature, self-leadership was defined as the self-influence behaviour that directs an individual towards performance when working on tasks that are either naturally rewarding or unrewarding (Stewart *et al.*, 2011:185). The literature review also revealed that self-leadership has an impact on employee performance (Curral & Marques-Quinteiro, 2009; Stewart, Courtright & Manz, 2011; Hauschildt & Konradt, 2012). This concept is captured in mainstream management literature in three main categories: *behaviour-focused strategies*, *natural reward strategies* and *constructive thought self-leadership strategies*. Closely linked to self-leadership is locus of control, which describes the distinct circumstances that

individuals attribute their success and failures to, especially within the work environment (Thomas *et al.* 2006:107; Wang *et al.*, 2010:761; Forte, 2005:65). Similarly, locus of control was reported as having a direct influence on the improved performance of large organisations (Hauschildt & Konradt, 2012:497; Wang *et al.* 2010:761). This is not surprising since locus of control emphasises the extent to which individuals believe that they have control over their own destiny. While a number of studies demonstrated a significant relationship between the two variables under study and performances, that is, self-leadership and job performance and locus of control and job performance independently, what remained unclear in mainstream literature was the combined influence of these concepts (self-leadership and locus of control) and job performance, hence this current study.

### 5.3. CONCLUSIONS BASED ON RESEARCH QUESTIONS

The current research examined five research questions using quantitative data collection and analysis techniques (i.e. structured questionnaires, descriptive statistics, correlation and regression analysis), the current research examined five research questions. Each question is presented below with a summary of its findings and conclusions.

**Research question 1:** *What are the main components of internal and external locus of control of engineering workforce at Eskom?* In Chapter 4, Table 4.2, 4.10 and 4.11 illustrated that the components of locus of control that affected engineering workforce at Eskom were internal locus of control and external locus of control. The mean percentage for internal locus of control was 77.88%, thus showing that the engineering workforce at Eskom Bloemfontein had a positive perception about their internal locus of control at the time of the study. All the averages for the tested internal locus of control were above 50%, which indicates a positive inclination towards locus of control. The positive identification with locus of control has potential to impact on the job performance and job satisfaction of employees in an organisation (Mali, 2013:149). **Therefore, it is concluded that the engineering workforce in Eskom Bloemfontein has internal locus of control. This suggests that such a workforce is careful, alert, dominant and ingenious.**

In addition, Table 4.11 showed that (40.19%) of the engineering workforce considered the external environment as influencing and controlling their actions at work. This sizable amount of external locus of control suggests that some of the engineering workforce at Eskom Bloemfontein



lacked the capacity and capability to determine their work-related and work environment-related outcomes. Rana *et al.* (2011) argues that individuals who have a high external locus of control display unsteady performance. **Therefore, it was concluded that a sizable number of the engineering workforce at Eskom Bloemfontein are easily influenced by external forces. This may influence the job performance of the engineering workforce if the situation is allowed continuing unabated.**

**Research question 2:** *What are the constitutive dimensions/ components of self-leadership of engineering workforce at Eskom Bloemfontein?* Table 4.4 presents the constitutive components of self-leadership which are behaviour focused strategies, natural rewards strategy and constructive thought strategies exhibited among the engineering workforce at Eskom Bloemfontein. Results in this table highlight that a majority of the engineering workforce at Eskom Bloemfontein identify highly with self-leadership, with the mean percentages all above 70%, which indicates that these are important factors for these respondents. About 82.80% of Eskom's engineers claimed to possess the natural rewards strategy. About 77.08% reported that they had constructive thought strategies, while 76.27% of the engineers identified with behaviour focused strategies. These findings imply that a majority of these respondents are behaviour focused as they considered natural rewards and engaged in constructive thinking. **It can be concluded that the engineering workforce at Eskom Bloemfontein possess the various constitutive dimensions of self-leadership as they are behaviourally focused, geared at natural rewards and engage in constructive thinking.**

**Research question 3:** *What is the influence of locus of control on the job performance of Eskom engineers?* The finding in Table 4.21 indicates that internal locus of control is positively related to the visualising of performance statements. The correlation coefficients range from 0.363 to 0.474 indicates a positive inclination. All 5 correlations coefficients are statistically significant, which means that there are significant relationships between locus of control and each of the visualising job performance statements. **Therefore, it can be concluded that there is a positive statistically significant relationship between locus of control and job performance.**

**Research question 4:** *In what way does self-leadership of the engineering workforce at Eskom Bloemfontein impact their job performance?* The results, as highlighted in Table 4.23 indicate that there is a positive significant relationship between the use of imagination to picture performance on important tasks and the following dimensions of SL (Sub components of behavior focused



strategies: self-goal setting (0.272), self-reward (0.328), self-observation (0.291), self-cueing (0.234), self-punishment (0.187), behavior focused self-leadership (0.358) and overall self-leadership (0.337). Furthermore, there was a positive significant relationship between an individual's visualising themselves successfully performing a task before they do it (i.e. job performance item) with the following self-leadership characteristics: self-goal setting (0.371), self-reward (0.43), self-observation (0.329), self-cueing (0.267), behavior focused (0.416), self-talk (0.174), evaluating beliefs and assumptions (0.182), constructive thought(0.203) and overall self-leadership (0.391).

A significant positive relationship was found between an individual picturing in their mind a successful performance before they actually did a task (another item of job performance) and the following dimensions of SL: self-goal setting (0.322), self-reward (0.426), self-observation (0.339), self-cueing (0.242), behavior focused self-leadership (0.448), natural rewards (0.258), evaluating beliefs and assumptions (0.183), constructive thought (0.184) as well as overall self-leadership (0.445). There was a significant positive relationship between an individual's purposeful visualisation of overcoming challenges (another item of job performance) and self-goal setting (0.287), self-reward (0.310), self-observation (0.299), behavior focused self-leadership (0.298), self-talk (0.235), evaluating beliefs and assumptions (0.270), constructive thought (0.310) as well as overall self-leadership (0.341). An individual's mental rehearsal of the way they plan to deal with a challenge before they actually face the challenge (another item of job performance) had a significant relationship with the characteristics of self-leadership: self-goal setting (0.370), self-reward (0.325), self-observation (0.356), self-cueing (0.283), behaviour focused self-leadership (0.442), self-talk (0.476), evaluating beliefs and assumptions (0.345), constructive thought (0.434) as well as overall self-leadership (0.481). **Therefore, it is concluded that there is a positive statistically significant relationship between self-leadership of the engineering workforce and their job performance.**

**Research question 5:** *What are the combined effects of self-leadership and locus of control on job performance of the engineering workforce at Eskom Bloemfontein?* The research also determined the relationship between self-leadership, locus of control and job performance. Thus, after determining that there are significant correlations between self-leadership and job performance (Table 4.25) as well as between locus of control and job performance (Table 4.24), the following regression equations were estimated (Table 4.24 - 4.26) to answer this question. The findings in the above tables led to the conclusion **that there is a positive relationship**

**between self-leadership, locus of control and job performance**, however the effect of the relationship as shown in the above stated tables is moderately strong.

## 5.4. RECOMMENDATIONS

### 5.4.1. IMPLICATIONS FOR POLICY AND PRACTICE

The implications are informed by the findings presented and discussed in Chapter 4. From section B (Self-leadership Profile) and section C (Locus of Control Profile) of the questionnaire used in the study, one can conclude that the respondents understood the concept of self-leadership and locus of control. The fact that self-leadership and locus of control are regarded as self-influence behavior that directs an individual towards performance when working indicates that managers need to develop a staff development policy that increases awareness of these concepts among employees. This will enable the employees to understand and identify with a strong leadership culture of an organisation – as self-leadership and internal locus of control have an impact on employee performance.

The results evident in Table 4.11 show that a sizable number of the engineering workforce (40.19%) see the external environment as influencing and controlling their actions at work. This moderately high external locus of control suggests that some of the engineering workforce at Eskom Bloemfontein lacked the capacity and capability to determine their work-related and work environment-related outcomes. The moderate dominance of external locus of control can be detrimental to job performance as employees attribute success to change and external circumstances and not their personal effort and task efficacy. Such variations in locus of control among the engineers seems to suggest that engineering education does little toward developing internal locus of control skills and behaviours for working on highly innovative engineering projects. Therefore, developing a work culture that attracts employees with a high locus of control can result in the organisational wide assimilation of locus of control. Human resource recruitment policies at Eskom should therefore, focus on locus of control considerations. High performers with internal locus of control can also be used as role models across departments to ensure a wide rollout of a high locus of control culture.

Success performance in engineering programmes and projects requires change not only in the way in which engineering education prepares students for professional practice, but rather change in the work philosophy and culture of leadership at all levels to ensure all employees' socialisation into leadership repertoires, internalisation of a strong internal locus of control, a strong work ethic and their practical manifestations at all organisational levels. It is, therefore, recommended that Eskom learn from companies such as the Consolidated Infrastructure Group (CIG) by providing senior engineering management and the engineering workforce with opportunities to improve academically, and empowering its' employees through on-going training and development to overcome their challenges of external locus of control.

The results in Chapter 4 on Table 4.4 conclude that the engineering workforce at Eskom Bloemfontein possess the various constitutive dimensions of self-leadership as they are behaviourally focused, geared at natural rewards and engage in constructive thinking. However, the results also show that a strong leadership is needed to promote the vision of Eskom's Constitution. The successful implementation of succession planning and leadership development plan requires strong self-leaders with internal locus of control from government, to Eskom leaders, technicians, technologies and graduate engineers. It is essential to breakout of this cycle, with leaders that are willing and able to take on greater responsibility to address Eskom's challenges. Leaders, especially in government, must also face up to difficult decisions and trade-offs. Strong self-leadership is about making such decisions and effectively persuading society that the best path is being pursued.

Therefore, leaders of engineering-based organisations must rely on innovative engineers who are self-leaders and who possess internal locus of control to create new engineering products and services. The above discussion shows that there's an existing positive correlation relationship between internal locus of control and performance, and self-leadership and job performance of employees. Although the correlation may not be high, it is an eye opener for Eskom and as such the public enterprise should aspire to increase the goodwill of their company. Hence, it is recommended that Eskom governance and administrators should develop policies regarding coaching, mentoring and counselling of employees on the importance of these concepts. Advisors should go beyond the work related areas and help their employees to improve and understand how their perceptions of self and their environment may shape their performance at work. Work related and personal mentoring of employees serves as a tool to a healthy attitude towards work,

habits, orientation to others, company and competitors. Therefore, employees with these characteristics perform better than those without these traits

The importance of the self-leader-locus of control-performance relationship arises from the contribution of followers to the leadership process as followers are integral to the performance of leadership. The recommendation is that Eskom engineers do not only have to cooperate and follow the lead of their superiors but rather should also demonstrate self-leadership by challenging or resisting problematic and inappropriate leadership strategies implemented by their leaders. Since self-leadership emphasises one's intrinsic motivation to self-influence regarding what, why, and how to perform work, it can be conceived as directly feeding into perceptions about one's capacity to influence his/her work-related outcomes and therefore, improve performance of the large organisations.

It is clear, from the aforementioned discussion that, a combination of self-leadership and internal locus of control is critical to achieving a high job performance for engineers through increased proficiency, proactivity and multi-tasking in the face of competing tasks and work activities. It is recommended that behaviour focused strategies and constructive thought patterns need to be aligned with internal locus of control behaviours to give effect to an improved job performance by the engineering workforce at Eskom Bloemfontein. Behaviour focused strategies, which emphasise observation and change of the engineers' own behaviour through primary factor strategies, could emphasise a strong customer orientation through proactive work order handling, prioritisation of customer needs, efficient and effective resource (money, time and energy) allocation, rapid response strategies to field services, fault management, control centre and flexing of work requirements in view of resource constraints. Finally, constructive thought process would cover all the "head work" required in design engineering, alignment of technical drawings to industrial and ISO standards, plant life cycle management and maintenance

## 5.4.2. IMPLICATIONS FOR ELECTRICITY GENERATION AND DISTRIBUTION

### Decentralisation of power generation and distribution

#### 5.4.2.1. Electricity Development Infrastructure

Addressing unstable leadership at Eskom requires major political and policy reforms, particularly a radical shift from centrally designed and regulated large electricity infrastructure projects (that often attract considerable political influence and interference) towards more decentralised, autonomous but locally owned projects founded on renewable energy sources. Findings from employees Economic community of west African states (ECOWAS)' main organ for regional electricity planning, the West African Power Pool (WAPP), reveal that all centralised projects of the WAPP showed little evidence of West African bureaucrats' ownership of the electricity sector whether in terms of decision making, financial investment, or accountability to its citizens could be relevant to Eskom's decentralisation and corporatisation efforts (see Pineau, 2008; Soumonni & Soumoni, 2011)

Increasing capacity building and utilisation of reliable clean energy demands that Eskom draw lessons from the Africa-EU Renewable Energy Cooperation Programme (RECP), an open-ended framework for cooperation between the two continents aimed at increasing the use of renewable energy on the African continent (RECP, 2012). RECP follows a structured, strategic approach to providing energy policy advisory services aimed at building strong institutions, supportive policy and regulatory frameworks for renewable energy investment and a conducive climate with valuable opportunities to attract foreign and local investment in the renewable energy sector (RECP, 2012). Examples of such capacity building initiatives would include developing and installing locally distributed solar photovoltaic (PV) - Compact Fluorescent Lamps (CFL) systems closer to consumers' locality, which would make connecting to a grid unnecessary (Goldberg 1998, Soumonni & Soumoni 2011).

Distributed generation (DG) of renewable electricity (as opposed to centralised generation) that is close to the point of consumption could be a more effective model of generating and transmitting electricity (see Soumonni & Soumoni, 2011). Distributed generation (DG) involves small-scale electrical power generation technology that provides electric power (solar panels, biogas plants or wind turbines, natural gas turbines or diesel generators), adjacent to, or at the load site that is

directly connected to a customer's facility, a distribution system, or both (Borbely & Kreider, 2001). DG systems are credited with the reduction of transmission losses, the alleviation of peak time congestion on the transmission grid, reliability in the event of power outages and lower maintenance requirements (Sovacool, 2008b; Soumonni & Soumoni, 2011).

Eskom could also benefit immensely from emulating the Moroccan example, in which a diversified energy mix was created in 2014 through the inclusion of renewables, especially wind and solar, to reduce its dependence on thermal generation (The Infrastructure Consortium for African Report, 2014).

There is need to promote the introduction of new technologies. Renewable energy, like solar or wind energy, reduces the procurement risks (oil) and the operation and maintenance risks and costs. The drawback of new technologies, however, is the high cost of equipment. A focus on few technologies can help with industry concentration in the future.

A narrow geographical coverage also improves power supply and distribution. Country-wide projects have lower political risks than regional projects, which suggests that the establishment of small to medium sized electrification projects can assist financially constrained institutions such as Eskom to develop strong institutional capacities and local learning necessary to institute regional projects. Regional projects, however, can only be built after individual countries' projects have taken off and been consolidated progressively.

#### 5.4.2.2. Financial constraints

The implementation of private-public partnerships to support the establishment, financing and servicing of mainstream electricity infrastructure is critical to Eskom's economic independence and reduction of political interference. Mittal (2015) argues that increased public private partnerships in funding and management of electricity generation, distribution and servicing provide assurances to private sector project developers and investors that 'extrinsic risks' beyond their control (e.g. political and regulatory stability and macro-economic issues) are eliminated or at least mitigated.

#### 5.4.2.3. Human resource development issues

Combining on the job training, professional development programmes, academic training in engineering with policy-relevant Masters programs is likely to impact positively on the competencies of Eskom management and engineers. Rwelamila and Ssegawa (2014) suggest that the development of any management competencies demands a combination of knowledge (acquired through specialisation in an academic field) and skills and experience (acquired through on the job training).

### 5.5. IMPLICATIONS FOR FUTURE RESEARCH

Based on the findings of this study, the following recommendations for future research are proposed.

Although the findings of this study are generalisable to the entire Eskom Bloemfontein engineering workforce, as a representative sample was drawn upon, they in no way represent the state of affairs (i.e. LC, SL and job performance) of Eskom employees nationwide. In the absence of studies that examined the combined effects self-leadership and locus of control on job performance, the generalisation of this study to the Eskom workforce across South Africa, therefore, is implausible. For this reason, future research should involve a national survey covering Eskom employees nationwide.

The study employed a quantitative research approach to explore the combined influence of self-leadership and locus of control on job performance. While robust correlation and regression analyses have goodness of fit with regard to unravelling of the links between relationships and the predictive effect of independent variables on dependent variables, they have limited explanatory power. For instance, they do not inform the researcher why the relationship between variables are the way they are, hence there is need to complement such analysis with qualitative research and analyses approaches. Future studies, may therefore, employ mixed methods that complement the quantitative approaches adopted in this study with qualitative research approaches, which provide room for probing for further clarity in cases where it might be needed.

This study focuses mainly on the correlation between self-leadership, locus of control and job performance. Although the effects of demographic variables on these variables were considered

in this study, they were nevertheless, not the core focus of this investigation. Future studies could give greater emphasis on the effects of demographics on these variables.

## **5.6. CONCLUDING REMARKS**

This chapter captured and presented the final considerations on the study of the relationship between self-leadership, locus of control and job performance of engineers working at Eskom, Free State's power distribution utility. The chapter recapped the research questions and their respective findings, the policy and practical implications of these findings, and implications for future research and research limitations. The chapter also provided some concluding remarks based on the literature review and the study's empirical findings.



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## ANNEXURE A

### LETTER REQUESTING PERMISSION TO CONDUCT THE STUDY

My name is Dr Patient Rambe and I am the main supervisor for Miss Disebo Modise's (Student number 211060917) Masters in Business Administration study. Miss Modise is currently enrolled as a Masters of Technology (MTech) student on the Business Administration Programme in the Department of Business Support Studies at our main university campus, the Central University of Technology, Free State.

I am kindly seeking your permission for Miss Modise to conduct her study in your esteemed organisation. She is currently exploring the critical role of being a self-leader and having internal locus of control to the success engineers in large corporations such as your organisation, Eskom in Free State. As such, she will need permission to conduct a survey with the Department of Engineering in your esteemed organisation, Eskom.

Her envisaged contribution is to develop strategies of human capacity building in Eskom through promoting various kinds of self-leadership and deepening work-based locus of control for effective work performance. It is hoped, this will improve Engineers' sense of ownership of their work performance and contribute significantly to improved corporate performance of Eskom. In addition, the research report will also contribute significantly to her the development of her final thesis document for her graduation in her studies.

Miss Modise's research has already been approved by our scientific research bodies, namely the Business Research Committee (BRC) and Faculty Research and Innovation Committee (FRIC), suggesting the scientific merit and possible social impact of her research for Eskom, the surrounding community and our university. The main focus of her research is exploring the combined effects of self-leadership and locus of control on job performance of engineers, hence main research question of this survey is: What is the combined impact of self-leadership and locus of control on the job performance of Eskom Engineers?

We guarantee you that the information gathered from this survey will be used solely for the development of a detailed report which will be availed to Eskom Management (if required) and for



the production of Miss Modise's Masters thesis. Under no circumstances will Eskom engineers be personally identified, and their data will be reported in aggregate form to protect their personal identities. In view of this, Engineers' responses will be treated with strictest confidence and they will remain anonymous. This is consistent with our Research Ethics Committee's principles to promote ethics informed research. I sincerely hope that you will do everything in your capacity to assist Miss Modise to gain access to potential participants (i.e. Engineers) in Eskom to accomplish her study successfully.

For any further inquiries, please feel free to contact me on:

Telephone: +27 51 507 4064; Cell: 073 380 1687

Email: [prambe@cut.ac.za](mailto:prambe@cut.ac.za)

Yours faithfully

A handwritten signature in black ink, appearing to read "Patient Rambe".

Patient Rambe, PhD.

Senior Researcher: Faculty of Management Sciences, Central University of Technology

Convenor of Masters and Doctoral Programme in Business Administration



## **ANNEXURE B**

### **PERMISSION LETTER TO CONDUCT THE STUDY**





## ANNEXURE C

### COVER LETTER

My name is Disebo Lotty Modise, a Masters of Technology student in Business Administration at the Central University of Technology (CUT), Free State. I am conducting a survey on the impact of self-leadership and locus of control of engineers on the job performance of their Department. At this stage, I am collecting data on the engineers of Eskom' perceptions of how engineer's self-leadership and their locus of control influence their job performance. This study is supervised by Dr Patient Rambe and Prof Crispen Chipunza who can be contacted on the following contact details

**Dr Patient Rambe** (Main Supervisor): 051 507 4064/ 073 380 1687 or prambe@cut.za

**Prof Crispen Chipunza** (Co-Supervisor):051 507 3218/ 061 138 7325 or cchipunza@cut.ac.za

Now I am conducting my field work on this topic and I would be very grateful if you take your time to complete this questionnaire. Responses to this questionnaire is voluntary and will be treated in the strictest confidential manner. The questionnaire will be filled anonymously and responses will not be attributed to a particular respondent and will be used for the purpose of this research only. The survey will help to establish the self-leadership and locus of control stands of engineers that could positively impact their job performance in the engineering Department. This survey questionnaire should not take you more than 50 minutes to complete. I significantly appreciate your assistance

I will be very thankful if you would complete all the sections of this questionnaires as honest as possible.

Yours faithfully

Disebo Lotty Modise

## SECTION A: DEMOGRAPHIC DATA (Engineers information)

### 1. Gender:

1	2
Female	Male

### 2. Age Group

1	2	3	4	5
Below 21 yrs	21-30 yrs	31-40 yrs	41-50 yrs	51 and above

### 3. Ethnicity

1	2	3	4	5
African	White	Black	Indian	Other

### 4. Marital Status

1	2	3	4
Never married	married	Divorced/ separated	widowed

### 5. Educational Level

1	2	3	4	5	6	7
Matric	Certificate	Diploma	Honours	Masters	PhD	other

### 6. Engineers Hierarchy

1	2	3
Technicians	Technologist	Graduate engineers

### 7. Years of experience on this job

1	2	3	4	5	6
Below 1	2-5 years	6-10 years	11-15 years	16-20 years	Over 20 years

## SECTION B: SELF-LEADERSHIP

Evaluate the following statement by circling the appropriate response based on the scale below.

**Please do not leave any item unanswered.**

SCALES	1	2	3	4	5
Please indicate the extent to which you agree or disagree with the following statements regarding your-self. <b>Please mark the appropriate answer with 'X'</b>	<b>STONGLY DISAGREE</b>	<b>DISAGREE</b>	<b>NEUTRAL</b>	<b>AGREE</b>	<b>STRONGLY AGREE</b>

<b>BEHAVIOR FOCUSED</b>						
<b>Self-goal setting</b>						
8	I establish specific goals for my own performance.	1	2	3	4	5
9	I am consciously guided/ informed by goals in the accomplishment of my work.	1	2	3	4	5
10	I work toward specific goals that I have set for myself during work.	1	2	3	4	5
11	During work I constantly think about the goals that I intend to achieve in the future.	1	2	3	4	5
12	I write specific goals for my own performance.	1	2	3	4	5
<b>Self-reward</b>						
13	When I do an assignment well, I like to treat myself to something or activity I especially enjoy.	1	2	3	4	5
14	When I do something well, I reward myself with a special treat/ event such as a good dinner, movie, shopping trip, etc.	1	2	3	4	5
15	When I have successfully completed a task, I often reward myself with something I like.	1	2	3	4	5
<b>Self-observation</b>						
16	I make a point to keep track of how well I'm doing at work.	1	2	3	4	5
17	I am usually aware of how well I am doing as I perform an activity.	1	2	3	4	5
18	I pay attention to how well I'm doing in my work.	1	2	3	4	5
19	I keep track of my progress on projects I am working on.	1	2	3	4	5
<b>Self-cueing</b>						
20	I use written notes to remind myself of what I need to accomplish.	1	2	3	4	5
21	I use concrete reminders (e.g. Sticky notes and lists) to help me focus on things I need to accomplish.	1	2	3	4	5
22	I diarise all my future work related activities.	1	2	3	4	5
<b>Self-punishment</b>						
23	I tend to "beat myself up" when I have performed poorly.	1	2	3	4	5
24	I tend to be tough on myself in my thinking when I have not done well on a task.	1	2	3	4	5
25	Tend to have self-pity when I do not perform well on a task.	1	2	3	4	5
26	I often express self-resentment when I underperform on a task.	1	2	3	4	5
27	I feel guilt when I perform a task poorly.	1	2	3	4	5



28	I sometimes openly express displeasure with myself when I have not done well.	1	2	3	4	5
<b>NATURAL REWARDS</b>						
<b>Focusing on natural rewards</b>						
29	I focus my thinking on the pleasant rather than the unpleasant aspects of my job activities.	1	2	3	4	5
30	I try to surround myself with objects and people that bring out my desirable behaviours.	1	2	3	4	5
31	When I have a choice, I try to do my work in ways that I enjoy rather than just trying to get it over it.	1	2	3	4	5
32	I seek out activities in my work that I enjoy doing.	1	2	3	4	5
<b>CONSTRUCTIVE THOUGHT</b>						
<b>Visualizing successful performance</b>						
33	I use my imagination to picture myself performing well on important tasks.	1	2	3	4	5
34	I visualize myself successfully performing a task before I do it.	1	2	3	4	5
35	Sometimes I picture in my mind a successful performance before I actually do a task.	1	2	3	4	5
36	I purposefully visualize myself overcoming the challenges I face.	1	2	3	4	5
37	I often mentally rehearse the way I plan to deal with a challenge before I actually face the challenge.	1	2	3	4	5
<b>Self-talk</b>						
38	Sometimes I find I'm talking to myself (out loud or in my head) to help me deal with difficult problems I face.	1	2	3	4	5
39	Sometimes I talk to myself (out loud or in my head) to work through difficult situations or task.	1	2	3	4	5
<b>Evaluating beliefs and assumptions</b>						
40	I think about my own beliefs and assumptions whenever I encounter a difficult situation.	1	2	3	4	5
41	I try to mentally evaluate the accuracy of my own beliefs about situations I am having problems with.	1	2	3	4	5
42	I openly articulate and evaluate my own assumptions when I have a disagreement with someone else.	1	2	3	4	5

## SECTION C: LOCUS OF CONTROL

SCALES	1	2	3	4	5
Please mark the appropriate answer with 'X'	STRONGLY DISAGREE	DISAGREE	NEUTRAL	AGREE	STRONGLY AGREE

INTERNAL AND EXTERNAL LOCUS OF CONTROL						
43	I can certainly determine what will happen in my work environment.	1	2	3	4	5
44	I have a big role in shaping the events which influence my work life.	1	2	3	4	5
45	I have the power to determine the attitude I want to display at work.	1	2	3	4	5
46	My work life is determined by my own actions at work.	1	2	3	4	5
47	I usually see a strong connection between my work based actions and consequences of those actions in the work environment.	1	2	3	4	5
48	I believe that people who perform their jobs well generally get rewarded.	1	2	3	4	5
49	I see the external environment influencing and controlling my actions at work.	1	2	3	4	5
50	I depend on my peers to get the job done more than I do it myself.	1	2	3	4	5
51	I conceive my supervisors in high regard and as initiators of work structure.	1	2	3	4	5
52	I value a participative management style.	1	2	3	4	5
53	I usually feel that I have more work autonomy and control of my work activities.	1	2	3	4	5
54	The general work climate (e.g. work rules, procedures) tends to control my actions at work.	1	2	3	4	5
55	I am more likely to experience work stress.	1	2	3	4	5
56	I depend on my supervisor for direction and guidance than I depend on myself.	1	2	3	4	5
57	I am generally satisfied with my job.	1	2	3	4	5
58	I work hard to develop my knowledge, skills and abilities.	1	2	3	4	5
59	My attitude towards work is shaped more by financial incentives.	1	2	3	4	5
60	I usually believe that the positive affirmation I have from my previous experiences result from my attitudes or external forces.	1	2	3	4	5
61	I struggle to do work independently without peer or supervisor support.	1	2	3	4	5
62	I have lower levels of job stress and I perform better.	1	2	3	4	5
63	I attribute my success at work to external forces such as chance or fate.	1	2	3	4	5
64	I emphasize striving for achievement.	1	2	3	4	5
65	I take note of information that can be used to create positive outcomes in the future.	1	2	3	4	5

66	Having self-confidence when performing tasks has assisted me accomplish tasks on my own.	1	2	3	4	5
67	Having self-confidence has helped me accomplish tasks with less supervision.	1	2	3	4	5
68	Making the effort improves the capabilities of employees on the job.	1	2	3	4	5
69	Being inquisitive and trying to figure out why things turned out the way they did helps me accomplish tasks successfully.	1	2	3	4	5
70	Engaging in activities that will improve my work situation has made job completion more rewarding.	1	2	3	4	5
71	I believe that performing well at work will lead to positive work outcomes such as increased pay or promotion.	1	2	3	4	5
72	I have a great deal of influence on the achievements of my department.	1	2	3	4	5
73	Sometimes I usually volunteer to carry out task activities that are not formally part of my job to improve my work environment.	1	2	3	4	5
74	Cooperating with others in the organisation helps to get tasks accomplished successfully.	1	2	3	4	5

# THANK YOU FOR YOUR TIME