



The relationship between self-leadership and shared leadership on team performance

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Abstract

Team performance is a building block for success in schools, organisations and the economy. It is positively impacted by self-leadership and shared leadership. Self-leadership impacts teams and their performance. Shared leadership is a team of knowledge workers who interactively impact team performance. Both self-leadership and shared leadership positively affect outcomes.

The research aim was to determine whether a relationship existed between team performance, self-leadership and shared leadership. A greater understanding of self-leadership and shared leadership, and the impact they have on team performance, will assist employees to reach predetermined goals.

Quantitative research was used to analyse the two hypotheses by measuring the relationships. Surveys were used to measure the respondents perceptions of team performance, self-leadership and shared leadership within a time frame. Cross-sectional data was collected from 100 employees from private schools in Pretoria. To measure validity and reliability of the measurement scale factor analysis was used, while multiple regression was used to determine whether a significantly predictive relationship existed between the variables.

Empirical evidence suggested that a significantly predictive relationship exists between team performance, self-leadership and shared leadership. This research contributes towards private schooling literature by the determined impact that self-leadership and shared leadership has on team performance.

Keywords

Team performance, self-leadership, shared leadership

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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12 March 2018

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Chapter 1: Introduction to the research problem

1.1 Introduction

Private education is a system which positively impacts further education, employees, organisations, as well as the economy on both a micro and macro level. Therefore, good student results are critical. Private schooling, in South Africa offers this level of education (de Villiers, 2018), however, the education system does require ongoing development to remain relevant in a dynamic and rapidly changing environment (Liao & Long, 2016). Teams have become the building blocks of organisational success, and team performance is just one component that has the potential to improve education effectiveness (Bouwman, Runhaar, Wesselink & Mulder, 2017). The elements of self-leadership and shared leadership have the potential to positively impact teams, team performance, organisations and service. Together they can foster psychological engagement in the service process, continuous improvement and sustainability (Manz, Skaggs, Pearce & Wassenaar, 2015). This study will determine whether a relationship exists between team performance and self-leadership; and team performance and shared leadership.

Team performance has the potential to produce superior results from teams who are the building blocks in effective organisations (Bouwman et al., 2017). Team performance is enhanced by innovation where team members collaboratively share ideas and knowledge (Boies, Fiset & Gill, 2015; Bouwman et al., 2017; Wijnia, Kunst, van Woerkom & Poell, 2016). Efficiencies and information processing, as dimensions of team performance, also have the potential to optimise team performance (Bouwman et al., 2017; Van Woerkom & Croon, 2009). Developing team performance has the potential to dramatically change organisations.

Self-leadership has the potential to impact team performance through self-influence and self-motivation, which enhances ongoing personal development (Politis, 2015). Ho and Nesbit (2013) found that self-leadership through behavioural focus strategy, natural reward strategy and constructive thought patterning strategy impacted team performance in clinical, athletic and educational settings, as well as employment contexts (Hauschildt & Konradt, 2012; Houghton, Dawley & DiLiello, 2012; Mahembe,

Engelbrecht & De Kock, 2013; Manz, 2015; Stewart, Courtright & Manz, 2011) and this has the potential of taking team performance to a higher road (Manz, 2015).

Shared leadership enhances team performance through multiple expert leaders, rather than relying on a traditional leader who is expected to know everything (Barnett & Weidenfeller, 2016; Chiu, Owens & Tesluk, 2016; D’Innocenzo, Mathieu & Kukenberger, 2016; Grille & Kauffeld, 2015). Barnett and Weidenfeller (2016) suggest that shared leadership enhances the valuable outcomes of team performance through effectiveness, innovation and learning in more complex environments. Nicolaidis et al. (2014) found that team confidence and interdependence mediators augment shared leadership and the impact on team performance.

To create high performance teams, it is essential for organisations to gain knowledge and understanding of self-leadership and shared leadership, and their relationship to team performance, as this will give them competitive advantage. The very core of leadership is changing in today’s rapidly changing, globalised environment from traditional leadership to empowering highly educated and motivated workers to self-leadership and shared leadership (Houghton et al., 2012; Pearce & Manz, 2005) to transform team performance within the organisation. The aim of this research is to investigate these relationships in the area of private schooling in Pretoria, South Africa.

1.2 Research motivation

Education has been identified as a key concern in South Africa (Department of Education, 1995). Even though private schools are producing good results, they need to remain cutting edge (de Villiers, 2018). Educated scholars feed into organisations which impact society and the economy; and for this to be optimal, education needs to remain dynamic. Team performance is one of the components that can produce a positive outcome on education and keep it dynamic. Both self-leadership and shared leadership impact team performance, which results in dynamic education.

Teams have become the building blocks of organisational effectiveness, which can be optimised by team performance (Bouwman et al., 2017). Team performance assists in gaining and sustaining a competitive advantage (Liao & Long, 2016). Individuals offer cumulative expertise, resources and different perspectives on challenging decisions and problem solving (Bouwman et al., 2017), which positively impacts team performance.

Developing team performance can impact teachers' performance in the classroom, which ultimately impacts the scholar. Private schools as a potential partner with public schools could collaborate and ultimately pass on gained knowledge.

Both self-leadership and shared leadership impact team performance positively, which affects teachers' output through personal choices and collaboration (Stewart et al., 2011).

Behavioural focus strategies, natural reward strategies and constructive thought pattern strategies are key dimensions of self-leadership which impact team performance (Hauschildt & Konradt, 2012; Ho & Nesbit, 2013; Houghton et al., 2012; Mahembe et al., 2013; Manz et al., 2015; Politis, 2015; Stewart et al., 2011). Teachers can choose to embrace these strategies for individual, and ultimately team gain, as developed self-leadership positively impacts the entire team, thereby resulting in increased team performance (Stewart et al., 2011).

Shared leadership is distinctive in that it transpires from traditional leaders who are willing to hand leadership authority on to team members, and then follow their peers (Chiu et al., 2016; DeRue, 2011). Even though shared leadership is a better forecaster of team performance than traditional leadership (D'Innocenzo et al., 2016), shared leadership is not intending to replace traditional leadership (Pearce & Sims, 2002) but rather to work in tandem (Pearce, Wassenaar & Manz, 2014). Pearce et al. (2014) found that high levels of task complexity require stronger traditional leadership. Pearce and Manz (2014) found that trust forms the foundation of shared leadership with individuals having required knowledge and skills (Chiu et al., 2016). Teachers can apply this tandem approach of leadership to further develop skill, and gain knowledge from one another.

1.3 Research purpose

Today, teams are becoming the norm in organisations to advance competitive advantage in an extremely competitive business dynamic (Liao & Long, 2016). It would be worthwhile for any organisation to have a greater understanding of the relationship between team performance and self-leadership; as well as team performance and shared leadership and the impact it can have on the organisation. Teaching teams would benefit from this understanding.

Empirical research on the self-leadership dimensions like behavioural focus strategies, natural reward strategies and constructive thought pattern strategies show a noteworthy relationship to team performance (Hauschildt & Konradt, 2012; Ho & Nesbit, 2013; Houghton et al., 2012; Mahembe et al., 2013; Manz, 2015; Politis, 2015; Stewart et al., 2011). It is therefore important that organisations understand the benefit of this relationship to enhance organisational impact.

An improved understanding of shared leadership, and its traction and ability to enhance team performance (D’Innocenzo et al., 2016), can make a positive impact on organisations. Individuals must have the required information, expertise and capabilities to develop shared leadership (Chiu et al., 2016), so that teams can develop trust, innovation, team confidence and team tenure. The value-add that shared leadership gives team performance has the potential to positively affect organisational success. Even though the relationship between shared leadership and team performance has been well researched, Chiu et al. (2016) found that there are still large amounts of unexplained variance.

Team performance is based on human resource theory (Bouwman et al., 2017), which suggests that innovation, efficiency and information processing are the dimensions of team performance. Self-leadership and shared leadership are based in leadership theories. Self-leadership has emerged as an expansion of self-management theory, self-control theory and self-regulating theory (Houghton & Neck, 2002; Neck & Houghton, 2006). The concept of shared leadership arises from traditional leadership (Ensley, Hmieleski & Pearce, 2006) where leadership authority is passed on within the team, and team members willingly follow their peers (Chiu et al., 2016; D’Innocenzo et al., 2016) and work in tandem with one another.

1.4 Research aims and objectives

This research project aims to explore the relationship between self-leadership and shared leadership on team performance. The relationship between team performance, which is the dependent variable, and self-leadership and shared leadership, which are the independent variables, will be investigated in order to identify the significance of these relationships.

The main objectives for the research are as follows:

1. To determine the relationship between self-leadership and team performance.
2. To determine the relationship between shared leadership and team performance.

1.5 Research scope

The research scope will fall within the confines of private schools in Pretoria, South Africa. Quantitative data on self-leadership, shared leadership and team performance will be collected from four divisions within the school: teaching staff, administration staff, management staff and executive staff. Research data is founded on the perception of the respondents and their understanding of all the questions presented. The data will be collected from the prepared online survey.

1.6 Structure of research report

The research report is structured in the following format. Chapter one provides the motivation, purpose and objective of this research. Chapter two is the literature review, which intends to provide a consideration of the dependent (team performance) and independent variables (self-leadership and shared leadership) being tested. Various theoretical views will be considered. Chapter three is the formulation of the hypotheses based on the literature review. Chapter four describes the research methodology used to research the proposed problem. Chapter five is the recorded statistical analysis. Chapter six is the discussion of the results compared to current literature. Chapter seven is the conclusion which highlights the principle findings, implications for management, limitations of the research, and includes recommendations for future research.

Chapter 2: Literature review

2.1 Introduction

The literature review will provide an analytical explanation of recent, peer-reviewed journal articles related to the research concept raised. From this analytical explanation, the theoretical framework will be formulated, and the research questions determined. The constructs of self-leadership and shared leadership in relation to team performance are observed in terms of definition, importance, dimension and relationship.

2.2 Team performance

The theoretical exploration of this research was based on team performance. The review was done within the framework of organisations.

Teams have become a popular model and critical part of organisations today. Van Woerkom and Van Engen (2009) suggest that team-based working has increasingly taken the norm (Boies et al., 2015; De Dreu & Weingart, 2003). Teams have become the core of organisational effectiveness over the past twenty years (Bouwman et al., 2017; Van Woerkom & Croon, 2009), and many businesses are embracing teams who are responsible for crucial outputs (McDermott, 1999; Van Woerkom & Van Engen, 2009). Team performance assists in gaining and sustaining a competitive advantage in a swiftly changing and spirited commercial environment (Liao & Long, 2016), and teams look to resolve these challenges (Boies et al., 2015). Teams also have an advantage over individuals in that they offer cumulative expertise, resources, different perspectives, and they challenge decision and problem solving (Bouwman et al., 2017), which positively impacts team performance.

Team performance research has been measured in three specific areas: innovation, efficiencies and information processing (Bouwman et al., 2017).

2.2.1 Team performance dimensions

2.2.1.1 Innovation

Sanders and Linderman (2014) suggest that organisations focused on high team performance need to achieve well in innovation and in efficiency (Bouwman et al., 2017). Bouwman et al. (2017) also found that for team innovation to be achieved, engaging team members need to do undertakings together which encourages creativity, tractability and investigation, which is typical of the shared leadership sub-construct of change leadership orientation (Barnett & Weidenfeller, 2016; Hoch, 2013). Innovation intentionally introduces new ideas, products and procedures which enhance team performance (Anderson & West, 1998; Bouwman et al., 2017), which impacts business effectiveness. Sharing team members' creativity, investigation and other ways of doing things underwrites team innovation, which increases team performance (Bouwman et al., 2017; Van Woerkom & Croon, 2009).

Innovation as a dimension of team performance is nurtured by communication. A large-scale investigation between communication and innovation proved that a link existed (Boies et al., 2015; Monge, Cozzens & Contractor, 1992). Shalley and Gilson (2004) found evidence that communication within the team positively impacted innovation, and they concluded that communication should be encouraged among team members to nurture innovation (Boies et al., 2015), which is supported by the communication factor in shared leadership (Stewart et al., 2011).

In addition, trust is a dimension that impacts innovation and, ultimately, team performance (Barczak, Lassk & Mulki, 2010). Boies et al. (2015) argue that trust in team members may represent the foundation to enable them to feel free to share, explore and contribute to reach desired team performance outcomes; while both Barnett and Weidenfeller (2016) and Drescher, Korsgaard, Welp, Picot and Wigand (2014) found that trust was developed over time through self-leadership (Manz, 2015) and shared leadership (Barnett & Weidenfeller, 2016). Team trust is linked to open communication, team tasks and innovation (Melita Prati, Douglas, Ferris, Ammeter & Buckley, 2003), and influences team performance outcomes (Boies et al., 2015).

Innovation also positively affects problem solving (Boies, 2015). Shared leadership clearly relates to team learning (Barnett & Weidenfeller, 2016) and is likely to impact

greater awareness for the whole team, thereby enabling them to innovatively address and engage in problem solving (Lambert & Peppard, 1993; Van Woerkom & Croon, 2009; Van Woerkom & Van Engen, 2009), which positively impacts team performance.

The second area that team performance was measured was efficiency (Bouwman et al., 2017)

2.2.1.2 Efficiency

Team efficiency as a dimension of team performance requires daily deep-level collaboration so that knowledge gained can be implemented (Bouwman et al., 2017; D'Innocenzo et al., 2016; Vangrieken, Dochy, Raes & Kyndt, 2015). Team efficiencies can also be measured by the team's input-output ratio so that time, effort and meeting schedules are optimal (Bouwman et al., 2017; Van Woerkom & Croon, 2009), which relates and is enhanced by self-leadership goal setting (Ho & Nesbit, 2013; Mahembe et al., 2013; Politis, 2015). Bunderson and Sutcliffe (2003) and Van Woerkom and Croon (2009) used competence measures on team performance and found that team knowledge (Barnett & Weidenfeller, 2016) can enhance team performance, although argue that when overdone it can compromise team performance. These team efficiencies are significant as they can potentially positively impact organisations.

The third area that team performance was measured was information processing (Bouwman et al., 2017)

2.2.1.3 Information processing

Information processing is when team members engage and share information with one another, collaborate their interpretations of the shared information and discuss different aspects to reach agreement, which results in increased team performance (Bouwman et al., 2017; Decuyper, Dochy & Van Den Bossche, 2010; Politis, 2015; Van Woerkom & Croon, 2009; Wijnia et al., 2016).

As team members identify with the team in the value of information processing, there is a greater commitment to achieving set goals (Bouwman et al., 2017; Politis, 2015; Van Der Vegt & Bunderson, 2005). Barnett and Weidenfeller (2016) found that training and goal setting positively influenced team performance. Focussing on learning activities by

team members where knowledge is obtained and processed together results in improved team performance (Edmondson, 1999; Van Woerkom & Van Engen, 2009). Van Woerkom and Croon (2009) also found that the sharing of information among team members, with the development of shared interpretations, was time efficient on the individual learning process (Ho & Nesbit, 2013; Politis, 2015). Collective learning is expected to reap a harvest as team members work together trading information, which enhances mutual learning (Kofman & Senge, 1993; Van Woerkom & Van Engen, 2009).

Boies et al. (2015) found that inspirational motivation and intellectual stimulation may create a more open platform for team members to speak freely, and suggested that intellectual stimulation and challenging the status quo is how things should be done to enhance learning, which impacts team performance.

Innovation, efficiency and information processing are the dimensions behind team performance, which assist in gaining and sustaining a competitive advantage in a highly competitive business environment (Liao & Long, 2016).

2.3 Self-leadership

The notion of self-leadership first arose in the 1980s as an development of self-management theory (Houghton & Neck, 2002; Manz & Sims, 2001), self-control theory (Cautela, 1969; Neck & Houghton, 2006) and self-regulation theory (Houghton & Neck, 2002). Self-leadership is defined as the process by which people self-influence to behave and perform in appropriate ways, both individually and in teams (Houghton & Neck, 2002; Manz & Sims, 2001; Manz et al., 2015). This is significant as it not only influences team performance, but positively impacts business management and organisations as a whole.

Organisations are looking more and more towards employees having greater capability and proficiency in self-direction and self-influence to be able to successfully manage the vibrant business environment (Ho & Nesbit, 2013). Self-leadership is defined as self-influence (Neck & Manz, 2010) and continuous improvement (Politis, 2015), through which employees can self-direct and self-motivate to increased performance (Ho & Nesbit, 2013). Pearce and Manz (2014) suggest that self-leadership involves handling one's behaviour to meet required standards and objectives; through self-influence skills growth and strategic perceptions (Neck & Manz, 2010). Manz (2015) suggests that

elevated self-influence, knowledge and practise can take self-leadership to a higher road. He continues to support self-leadership in that it is at the centre of organisational influencers and regulator processes (Manz, 1986; Stewart et al., 2011). Manz (2015) suggests that self-leadership is at the core of organisation behaviour and affects work attendance, employee effort, cognition, choices and satisfaction.

2.3.1 Self-leadership dimensions

Self-leadership measurement has a multidimensional theory with three secondary issues being behavioural focus strategies, natural reward strategies and constructive thought pattern strategies (Hauschildt & Konradt, 2012; Ho & Nesbit, 2013; Houghton et al., 2012; Mahembe et al., 2013; Manz et al., 2015; Politis, 2015; Stewart et al., 2011).

2.3.1.1 Behavioural focus strategy

Behavioural change should be encouraged and patterned to develop self-leadership. Hauschildt and Konradt (2012) suggest a three-step process to behavioural change: goal setting (self-goal setting); then the pursuit thereof (self-observation and self-cueing); and finally evaluation and consequences (self-reward and self-punishment). Stewart et al. (2011) found that, based on this self-assessment, foundational personal goals can be set, which could lead to improved personal and team performance (Houghton et al., 2012; Neck & Houghton, 2006; Neck & Manz, 2010;). Houghton and Neck (2002) propose that setting goals and accepting the challenge has increased, and this has had a dramatic effect on attaining goals and motivating team performance (Neck & Manz, 2010).

Behavioural focus strategy involves action to complete tasks, even challenging tasks (Ho & Nesbit, 2013). Five behavioural focus strategies include self-goal setting, self-observation, self-reward, self-punishment and self-cueing (Houghton & Neck, 2002; Ho & Nesbit, 2013; Mahembe et al., 2013; Manz & Sims, 2001; Politis, 2015). These five strategies can be defined as self-goal setting including the degree to which employees self-direct using individual goals. Self-observation is employees' ability to keep track of personal work progress and team performance. Self-reward is employees' ability to reward themselves physically and mentally. Self-punishment is employees' ability to correct undesirable behaviour through guilt when they have failed to accomplish

something. Finally, self-cueing encourages employees to use prompts to remind themselves of central responsibilities (Politis, 2015).

2.3.1.2 Natural reward strategy

Rewarding activities and pleasurable surroundings at work encourage employees to engage. Natural reward strategy is to motivate for better team performance by engaging in tasks designed to be more enjoyable (Ho & Nesbit, 2013). Natural reward strategy occurs when motivations are part of responsibilities, this motivates the person to achieve the task at hand (Hauschildt & Konradt, 2012; Neck & Manz, 2010), and it raises the hope of increased capability and resolution (Deci & Ryan, 1985; Houghton et al., 2012). Constant focus on the current satisfying aspects of work and presenting even more pleasurable results in work becoming even more rewarding (Hauschildt & Konradt, 2012; Neck & Houghton, 2006). Politis (2015) suggests five strategies that have the potential to promote self-directing and self-motivating (DiLiello & Houghton, 2006) which include: distinguishing rewards, pleasant surroundings, satisfying behaviours at work, enjoyable characteristics of work and focussing on natural rewards as opposed to external rewards. Empirical research has shown that there is a relationship between natural reward strategy and innovation and productivity, which positively affects the individual, and in turn impacts team performance (Politis, 2015).

2.3.1.3 Constructive thought pattern strategy

Clear and productive thinking are foundational to developing self-leadership. Constructive thought patterning involves three strategies: self-examining individual belief; aligning cognition with desired behaviour for successful team performance; and positive self-talk and belief (Hauschildt & Konradt, 2012; Ho & Nesbit, 2013). Stewart et al. (2011) propose a thought self-leadership which specifically includes perceptual imagery, self-talk and alternate views. This can foster self-efficacy, setting goals and enhancing effectiveness through more constructive thought processes (Neck & Houghton, 2006), thereby positively affecting team performance, which will have an impact on organisations.

Authenticity is key to constructive thought patterning and is characterised by genuine thoughts and beliefs (Edgar, Geare, Halhjem, Reese & Thoresen, 2015; Harter, 2002; Manz, Houghton, Neck, Fugate & Pearce, 2016) for personal well-being, team

performance gain and management advancement. Employees are often required to behave in certain ways because of the type of work that they do, which is against their thoughts and beliefs. This can be quite detrimental to their well-being (Grandey, 2003; Manz et al., 2016), resulting in internal conflict and pressure, as well as long-term emotional build-up with subsequent unfavourable responses.

Ho and Nesbit (2013) found that self-leadership through behavioural focus strategy, natural reward strategy and constructive thought pattern strategy enhanced team performance in clinical, athletic and educational settings, as well as in employment contexts. In addition, Hauschildt and Konradt (2012) found that self-leadership training affected all three dimensions of self-leadership positively. In today's fast-paced work environments, positive emotional self-leadership has the potential to serve organisations effectively (Manz et al., 2016).

2.3.2 Self-leadership and team performance

Self-leadership through self-management has been developed to team level; and this concept extends back to the 1970s (Stewart et al., 2011). These terms are synonymous with research done by Neck and Manz (2010) who found that self-leadership and self-management clearly have a positive impact on team members and their team performance (Hauschildt & Konradt, 2012). This positive relationship should impact organisational management because of the high level of team-based engagement in organisations today.

Hauschildt and Konradt (2012) found that self-leadership related confidently to individual task aptitude, adaptivity and proactivity, as well as when directed at team level (Houghton & Neck, 2006). Team members who embrace self-leadership also positively related to team orientated behaviours like skilled, flexible and proactivity team members, which positively impacted team performance (Hauschildt & Konradt, 2012). Stewart et al. (2011) explored task characteristics in teams to find that this followed team self-leadership being associated with higher team performance (Stewart & Barrick, 2000). Hauschildt and Konradt (2012) found that team level autonomy had positive effects on team performance, being most effective when the team coordinates their task actions. The authors also found that successful teams ascribed to communicative behaviour around task, which includes other member contribution and action applicable to the task on hand within the timeline. Dechurch and Mesmer-Magnus (2010) and Stewart et al.

(2011) claim that perceptual models shared are particularly valuable for self-leadership teams, as well as trans-active memory systems so that knowledge can be shared with the team. Information exchange further fulfils their team member role to increase team performance (Hauschildt & Konradt, 2012). Open communication within the team develops a collective awareness of knowledge, task synchronisation and change adaptation (Kozlowski & Ilgen, 2006; Stewart et al., 2011) which clearly impacts team performance. Bligh, Pearce and Kohles (2006) suggest that the team is positively influenced where self-leadership approaches are utilised within the team, resulting in greater trust, commitment and belief that the team will achieve its goals (Hauschildt & Konradt, 2012). Beal, Cohen, Burke and McLendon (2003) have also identified team solidarity as increasing team performance (Stewart et al., 2011). Morgeson, DeRue and Karam (2010) and Stewart et al. (2011) found that the external leaders who the team reports to can affect the team positively or negatively depending on their actions; and practical coaching from the external leaders is sometimes needed to maintain high team performance (Morgeson, 2005). Stewart, Courtright and Barrick (2010) suggested that teams high in self-leadership have shown that peer appraisals are used to allocate organisational recompenses, pay increases and bonuses.

Neck and Houghton (2006) suggest that positive affect, job satisfaction and psychological empowerments are predictable of self-leadership. And developed self-efficacy (Bandura, 1977), perhaps the most commonly mentioned variable of self-leadership, significantly impacts team performance (Hauschildt & Konradt, 2012). Employees who are independently committed to self-leadership (Neck & Houghton, 2006) have a developed sense of task ownership, which affects both the individual and team positively.

Organisations need mature employees who can take self-leadership which is at the core of the organisation to a higher road (Manz, 2015). Teams are more operative when they include individuals with developed self-leadership (Stewart et al., 2011), as opposed to poorly developed self-leadership which affects the team adversely. However, conflict within the team requires quick non-emotional resolve to protect relationships (Behfar, Peterson, Mannix & Trochim, 2008), as well as team performance (De Dreu and Weingart, 2003; Stewart et al., 2011). Bell (2007) found that one 'bad apple' undermines the success of the entire team, therefore ideal teams should have members who are intentional about maturing their individual self-leadership journey. Humphrey, Hollenbeck, Meyer and Ilgen (2007) argue that too many extroverts with no leadership

training result in power struggles and conflict (Stewart et al., 2011), affecting the team performance negatively.

2.4 Shared leadership

The concept of shared leadership arises from traditional leadership theories that have focussed on leaders' descending persuade on their followers (Pearce & Conger, 2003), and this could have an effect on how shared leadership is observed (D'Innocenzo et al., 2016). Shared leadership can be defined as an occurrence generated from team member dependence and inspiration to achieve team goals (Carson, Tesluk & Marrone, 2007; Chiu et al., 2016). Barnett and Weidenfeller (2016) suggest that shared leadership can be defined as important and useful, albeit complex and sophisticated. D'Innocenzo et al. (2016) argue that the complexity of tasks within the team related negatively to the shared leadership and team performance relationship, yet Pearce and Manz (2005) found the opposite. Both Boies et al. (2010) and D'Innocenzo et al. (2016) found that shared leadership, through transformational leadership, had a negative effect on team performance.

They also suggested that shared leadership enhances the valuable outcomes of improved team performance, effectiveness, innovation and learning. Furthermore, they stated that shared leadership is exclusive and separate from vertical leadership, and team performance can be improved past what actual vertical leadership can achieve (Barnett & Weidenfeller, 2016). D'Innocenzo et al. (2016) define shared leadership through five significant themes: origin of leadership (which is both internal or external), convention of leadership (which is the formalisation within the organisation), distribution (which is the extent of team member participation), temporal dynamics (which is both static or non-static), and the numerous roles (which is the various roles and functions of the leader). A significantly confident relationship between shared leadership and team performance was measured, supporting the claim made by D'Innocenzo et al. (2016) of affirmative value, however, they found that the scale of this relationship fluctuated across their study.

This dynamic process called shared leadership is proving to be particularly effective in the increased complexity of organisation efficiencies; where a single, vertical or traditional leader is unable to perform the many roles optimally (Grille & Kauffeld, 2015; Small & Rentsch, 2011). The idea of multiple leaders dates back to the early 1900s

where an individual's knowledge for the situation at hand was sought after, and not necessarily the leader's expertise only (D'Innocenzo et al., 2016). Barnett and Weidenfeller (2016) and Pearce and Conger (2003) suggest that shared leadership is constructed on team decision-making, social exchange theory, self-leadership, self-managed teams, enablement and shared knowledge over the past four decades. Shared leadership has gained significant traction in recent years, and is potentially starkly opposite to traditional leadership (Pearce, Manz & Sims, 2009). This has led to recently published meta-analyses that measures the efficacy of shared leadership and its impact on team performance (Barnett & Weidenfeller, 2016). The one person in charge, who is expected to know everything, is being exchanged by a knowledgeable team (Chiu et al., 2016).

2.4.1 Outcomes of shared leadership

Four outcomes have been measured and documented on the relationship between shared leadership and team performance (D'Innocenzo et al., 2014; Nicolaidis et al., 2014), namely team success (Pearce & Sims, 2002), innovation (Hoch, 2013), team proactivity (Erkutlu, 2012) and new venture team performance (Barnett & Weidenfeller, 2016; Ensley et al., 2006). This positive relationship between shared leadership and the above-mentioned outcomes provides evidence that the positive correlation supports the validity of shared leadership (Barnett & Weidenfeller, 2016).

Morgeson et al. (2010) identified fifteen important team leadership functions and recorded them into two phases. Firstly, the conversion phase which includes the team composition, mission definition, goal establishment, planning, educating the team members, understanding team occurrences and offering feedback. Secondly, the achievement phase includes monitoring team performance, actioning the team's work, problem solving, resource provision, and encouraging self-management within the team. These leadership attributes suggest the process by which shared leadership outcomes can be reached. However, these functions may not necessarily be equally distributed at a given time; and some of these functions may require vertical leadership, as well as shared leadership, to have effective outcomes (Barnett & Weidenfeller, 2016).

External leaders from a team within the organisation, team sponsors or coaches can effectively help teams facing unique, difficult or disruptive circumstances to improve outcomes (Barnett & Weidenfeller, 2016; Morgeson, 2005). Specific individual qualities

like trust, intelligence, innovation, openness to experience and emotional stability which positively affects team performance outcomes (Barnett & Weidenfeller, 2016; Hoch, 2013; Seers, Keller & Wilkerson, 2003). D’Innocenzo et al. (2014) suggest that individuals who can accept leadership from peers, and who had effective self-leadership, may be good candidates for shared leadership teams – resulting in improved team performance outcomes.

Barnett and Weidenfeller (2016) advocate that shared leadership takes time to learn and expound as the team goes through different stages, different roles and different functions, which may also be important on different levels, to eventually provide desirable outcomes. Bergman, Rentsch, Small, Davenport and Bergman (2012) found that as shared leadership behaviour increased in the members of the team, and shared leadership teams experienced less clashes, greater agreement, increased team trust and unity compared to those without shared leadership.

Methodological moderators and mediators get closer to the difficulties of shared leadership, which usually strengthened the relationship with team performance outcomes (D’Innocenzo et al., 2016; Nicolaidis et al., 2014). Shared leadership outcomes are numerous, and various moderators and mediators impact these either positively or negatively on team performance.

2.4.2 Shared leadership versus traditional leadership

Traditional leadership has been seen as a top-down procedure where a single leader is isolated which is opposite to shared leadership (D’Innocenzo et al., 2016). Shared leadership is significant and unique in that it emerges from traditional leaders willing to give leadership authority to team members, and follow their colleagues (Chiu et al., 2016; DeRue, 2011). Shared leadership causes the emergence of official and unofficial leaders in teams (Yukl & Mahsud, 2010). It moves beyond the top-down, traditional-type leadership to an energetic give-and-take relationship (Pearce et al., 2009; Pearce et al., 2014). Shared leadership is a better forecaster of team performance than traditional leadership (D’Innocenzo et al., 2016; Ensley et al., 2006) or typical traditional hierarchical leadership structures (Carson et al., 2007). Pearce et al. (2014) suggest that traditional leaders can inspire or expire the development of shared leadership within organisations, therefore the traditional leader must know their roles and goals. Shared leadership is significant as it is not intending to replace traditional leadership (Pearce & Sims, 2002),

but rather to enhance team performance. Pearce et al. (2014) intimate that shared leadership and traditional leadership work in tandem depending on what is needed. Barnett and Weidenfeller (2016) suggest that good traditional leadership can accelerate shared leadership. However, they caution that dictatorial leadership may suppress shared leadership and they continue to propose that developed shared leadership can complement the impact of good traditional leadership (Barnett & Weidenfeller, 2016).

Hoegl and Muethel (2016) expanded on why leaders are blinded to shared leadership. Firstly, they deem leadership as an assumed position that cannot be shared; secondly, they are overconfident in their leadership role and see themselves as superior; and thirdly, they fear becoming dispensable. Leaders are often intimidated by shared leadership. However, Grille and Kauffeld (2015) and McIntyre and Foti (2013) found that when team members were asked to nominate leaders within the team, the number who were nominated showed a high degree of shared leadership. This would be achieved by accepting the new rules of the game, respecting team members' capabilities, encouraging leadership behaviour, loosening the leadership reins, avoiding responsibility traps and becoming a true team member (Hoegl & Muethel, 2016).

There are benefits and challenges to shared leadership, as has been measured. Organisations would need to know and understand these to know when to allow, implement or disallow shared leadership in regards to optimal managerial team performance.

2.4.3 Shared leadership and team performance

Recent findings have reported the confident relationship between shared leadership and team performance. However, researchers also caution that their understanding of how shared leadership is formed could negatively impact the team performance (Chiu et al., 2016). The positive relationship between shared leadership and team performance is confirmed by D'Innocenzo et al. (2016), as they measured a meta-analytical approach on two main task-related boundary conditions of task complexity and task independence. They then tested for task and team satisfaction to find both empirically positive in relation to team performance. They claim that inconsistencies measured in literature put doubt to the validity of the relationship between shared leadership and team performance, however, these negativities are minimal. What D'Innocenzo et al. (2016) did determine was that the team task challenges related negatively to the scale of shared leadership

and team performance, suggesting that the more complexity decreases the effect of shared leadership on team performance.

Shared leadership can be developed so that team performance is enhanced (Barnett & Weidenfeller, 2016). Zaccaro, Rittman and Marks (2001); LaFasto and Larson (2001) and Morgeson, DeRue and Karam (2010) establish that training in elements of shared leadership such as clear goal setting, reward behaviour, team confidence, prioritising, task cognition, trust, handling conflict, motivation and processes were recommended, which positively affected team performance (Barnett & Weidenfeller, 2016). Managers would need knowledge and insight to be able know when to implement shared leadership and when not to for optimal team performance.

2.4.4 Shared leadership moderators and mediators on team performance

Regardless of the increased focus on shared leadership, there are a number of unanswered questions (Nicolaidis et al., 2014), particularly with regards to the shared leadership mediators and moderators in relation to team performance. Chiu et al. (2016) also found that even though the relationship between shared leadership and team performance has been researched, there are still large amounts of unsolved inconsistencies.

Nicolaidis et al. (2014) found interesting results on the meta-analysis measured. Firstly, they found that shared leadership had a significant effect on team performance, more so than that of traditional leadership on team performance. In a team context, traditional leadership may lack the full range of resources to help their teams accomplish their goals, therefore indicating that shared leadership can enhance traditional leadership, which will positively affect the organisation (Nicolaidis et al., 2014; Perry, Pearce & Sims, 1999). Secondly, Nicolaidis et al. (2014) found team confidence to be a partial mediator illuminating the how and why shared leadership positively impacted team performance. Both Bandura (1977) and Mathieu, Maynard, Rapp and Gilson (2008) suggest that team confidence is the umbrella term for emerging self-efficacy and collective belief, which covers the investigation into the psychology of team performance. Furthermore, team confidence mediates the effect of team performance on a traditional leader's leadership (Bass, Avolio, Jung & Berson, 2003; Nicolaidis et al., 2014); and shared leadership behaviours, which satisfy team needs, increases team confidence – like setting goals, finding solutions, giving voice and team success. These multiple

transmitters support the team confidence partial mediator of shared leadership on team performance so that organisational goals can be attained. Thirdly, Nicolaides et al. (2014) found that the high interdependence moderator, which includes working closely together, coordinating and integrating actions, positively affects team performance. D'Innocenzo et al. (2016) recognised interdependence in task-driven interaction, goal setting and outcomes. Interdependence demands high levels of distributed expertise, coordination, interaction and guidance (Wageman, 1995), and requires an increase of leadership behaviour, which augments the impact of team performance on the organisation (Nicolaides et al., 2014; Zaccaro et al., 2001). Fourthly, Nicolaides et al. (2014), supported by (D'Innocenzo et al., 2016), found that team size was not a significant overall moderator. Statistically, researchers have measured team size to be a nuisance variable (Pearce & Conger, 2003) as both large and small teams have benefits depending on the circumstances. Finally, Nicolaides et al. (2014) found that as the team tenure moderator increased so shared leadership validities decreased, and reasons for this were potential power struggles, rigidity, conflict and team member change. Team tenure has the ability to negatively distress the organisation.

Shared leadership influences team performance indirectly through the positive affective tone moderator, which positively impacts team performance (Hmieleski, Cole & Baron, 2012; Nicolaides et al., 2014). D'Innocenzo et al. (2016) examined shared resolution, common purpose and opinion moderators within the team. They found that collective goals were achieved through shared purpose; emotional and psychological support through encouragement (Kirkman & Rosen, 1999); recognition and accomplishments through common purposes; and finally, increased communication through voice positively influencing the accomplishment of organisational goals.

D'Innocenzo et al. (2016) also found that as theory and measurement embrace difficulties of shared leadership, the relationship between shared leadership and team performance strengthened – particularly, social network density relationships within the team. Team members with certain characteristics like self-leadership, integrity, a trusting disposition, required skill and experience may make shared leadership easier and team performance stronger (Barnett & Weidenfeller, 2016), thereby benefitting the organisation.

Drescher et al. (2014) found that the mediating result of trust behaviour, developed over time, affected team performance positively – trust fully mediated the impact of shared leadership (Barnett & Weidenfeller, 2016). Houghton, Pearce, Manz, Courtright and

Stewart (2014) found that surrendering personal power and engaging mutual trust motivates collaboration with team members and mediates the impact of shared leadership on the organisation, which in turn supports the concept of “sharing is caring” (Houghton et al., 2014). The assumption can be made that this type of “sharing is caring” environment will positively impact team performance.

Shared leadership moderator and mediator research in relationship to team performance has only begun, therefore an opportunity for further research will add value to what has already been proven.

2.5 Self-leadership and shared leadership

Silver bullets for a new epoch of leadership in the twenty-first century are self-leadership and shared leadership (Pearce & Manz, 2005), no longer the top-down pressure, but a less restrictive bottom-up pressure of a well-educated employees who do not just want to work for a pay cheque. Leadership is changing in today’s fast-paced, globalised environment from traditional leadership to empowering highly educated and motivating employees to develop self-leadership and shared leadership (Houghton et al., 2012; Pearce & Manz, 2005).

The globe is plagued by a leadership disease (Pearce & Manz, 2014), which is a centralised hierarchal model of leadership, and the suggested solution is to turn the leadership model upside down. This upside-down model supports team performance. Pearce and Manz (2014) focus on two solutions: self-leadership, which encourages sheep-like followers (Neck & Manz, 2010), and shared leadership, which shows how every team member can play an valuable role in an interactive leadership development that positively impacts team performance (Bligh et al., 2006; Pearce & Conger, 2003).

Self-leadership can assist in decentralised executive leadership, however shared leadership can assist in putting checks and balances in the overall leadership system (Pearce & Manz, 2014), therefore being more dynamic, flexible and robust. Teams are recognised as extremely interdependent and flexible.

A learning platform needs to be created so that leadership change can be implemented (Pearce & Manz, 2014) including a learning philosophy, learning methods and skills and leadership processes; so that the new leadership way can be established. Some self-

leadership skills and strategies to be learnt include personal evaluation, setting of goals, self-observation, self-goal-setting, practise, management and perceptual imagery (Pearce & Manz, 2005). Some shared leadership concepts to be learnt include simultaneous, ongoing and mutual influential processes within a team (Pearce & Manz, 2005). There are five factors that influence the appropriateness of self-leadership and shared leadership (Pearce & Manz, 2005), which includes perseverance, employee commitment, innovation value, independence and complexity. These five factors, developed along with the harnessing of the potential of knowledge workers, position teams for high team performance to positively impact management.

Manz et al. (2015) suggest that both well-developed self-leadership and shared leadership will positively impact team, organisation, team performance and service. Together they can foster psychological engagement in the service process, continuous improvement and sustainability for customers. Self-leadership meets the needs of the person being served, and shared leadership meets the experience of the service process, resulting in current clients enticing future clients (Manz et al., 2015).

This study will be done in the context of private schools in Pretoria, South Africa to determine how self-leadership and shared leadership relate to team performance on various levels within the schools, including teaching, administration, management and executive staff.

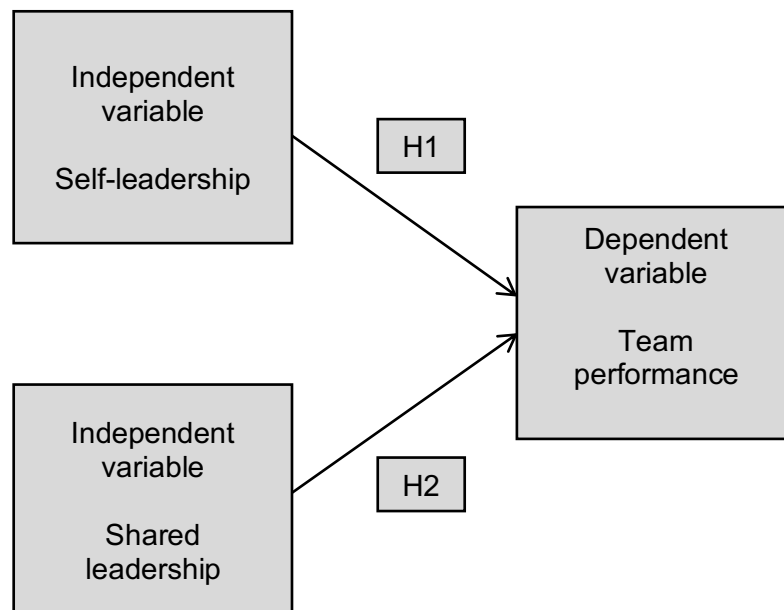
2.6 Conclusion

The aim of this research was to determine the analytical relationship between self-leadership, shared leadership and team performance. After reviewing the literature there is evidence that empirical research points toward there being a relationship between self-leadership, shared leadership and team performance. An increased understanding of the relationships has the potential to improve organisational management. The review indicated that team performance measurement through innovation, efficiency and information processing (Bouwman et al., 2017) was impacted by goal setting, self-observation, rewards and cognition of self-leadership (Manz, 2015), and that team performance measurements are influenced by goal setting, innovation, training, problem solving, positive tone, team confidence and team tenure of shared leadership (D'Innocenzo et al., 2016).

Chapter 3: Research hypotheses

Based on the academic information described in the literature review, the following two hypotheses were formulated and are illustrated in Figure 1 below.

Figure 1 - Proposed hypotheses



Hypothesis 1 – Self-leadership

Research question 1 – Can it be forecast, with equitable accuracy, that a relationship exists between team performance and self-leadership?

- **Null hypothesis one (H₀1)**
No significant relationship exists between team performance and self-leadership.
- **Alternate hypothesis one (H₁1)**
A significant relationship exists between team performance and self-leadership.

Hypothesis 2 – Shared leadership

Research question 2 – Can it be forecast, with equitable accuracy, that a relationship exists between team performance and shared leadership?

- **Null hypothesis two (H₀2)**
No significant relationship exists between team performance and shared leadership.
- **Alternate hypothesis two (H₁2)**
A significant relationship exists between team performance and shared leadership.

These two hypotheses that have been identified to determine the relationship between team performance and the two constructs, self-leadership and shared leadership, will be analysed. The methodology that will be used will be discussed in the next chapter.

Chapter 4: Research methodology

4.1 Methodology

A deductive methodology approach was implemented. The deductive approach involves examining the theoretical proposition and defends the causal relations between the identified variables (Saunders & Lewis, 2012). In the case of this research, the relationship between team performance, self-leadership and shared leadership was tested.

Saunders and Lewis (2012) suggest that research philosophy is the critical analysis of fundamental beliefs held by a person, and a realism research philosophy was adopted. Realism is defined as a philosophy of research which emphasises that objects subsist separately from our knowledge of their actuality (Saunders & Lewis, 2012). The research addressed the research objectives and was based on realism and tested the relationship between the dependent variable, being team performance, and the two independent variables, being self-leadership and share leadership. This testing was based on the hypotheses previously described.

A quantitative method of research was used to emphasise the objective measurement through the analysis of the new data. This helped determine understanding about the specified sample (Saunders & Lewis, 2012). The research survey was used to gather data from the sample. The data was analysed and evaluated according to the research procedures. A cross-sectional time horizon was used for this study. This time horizon collects data at a specific point in time from the participants and is often referred to as a “snapshot” (Saunders & Lewis, 2012).

Primary data was collected to examine the abovementioned hypotheses. The relationships between the three variables was determined by descriptive, correlation and regression analysis. Graphs and tables will be used to show the results of the statistical analysis. An explanation of these results will be provided.

4.2 Population

The population or universe for this research were the employees who work at private schools in Pretoria, South Africa. This study used a sample from the population. This

study then contextualised for teams within these schools. This sample should suffice to provide the responses required for statistical analysis.

4.3 Unit of analysis

In this study, the unit of analysis was the employees at the schools, including teaching staff, administration staff, managerial staff and executive staff, who were able to express their perceptions of self-leadership and shared leadership and their relationship to team performance according to the questions asked in the survey.

4.4 Sampling method and size

A sample of the population was used, as the complete set is impossible to test. Saunders and Lewis (2012) suggest that if the total population cannot be determined then a sample of that population should be used. It was impossible to determine and communicate with the entire population. Therefore, in the case of this research, convenience sampling was used as a form of non-probability sampling techniques because of limited time, convenience and access. The disadvantage of convenience sampling is the inherent bias that the sample may not be an accurate representative of the population (Saunders & Lewis, 2012).

A minimum recommended sample size is required when using multiple regression for predictive purposes and correlation coefficients. Knofczynski and Mundfrom (2007) provide a guideline for the least amount sample size required when making use of multiple regression for predictive purposes. In this study a minimum of ninety respondents was required to regulate valuable results. The data was analysed to determine the relationship between the one dependant variable – team performance – and the two independent variables – self-leadership and shared leadership.

4.5 Measurement instrument

The questionnaire was the measurement instrument. The questionnaire was set in four sections, being the demographics, dependent variable and the two independent variables. Both the dependent variable and the two independent variables used a five-point Likert scale for the respondents to select the best option.

The demographic section included age, gender, education, race, years with the organisation, position in the organisation, size of the organisation and age of the organisation. The shortest versions of the questionnaires were used to assist the response rate.

4.5.1 Measurement of team performance

The dependent variable of team performance was measured by using the HRM (Human Resource Management) research instrument (Bouwman, et al., 2017). This research used sixteen questions from the HRM research instrument. There were three sections, namely team innovation with four questions, team efficiency with three questions, and information processing with nine questions. This instrument has been found to have acceptable reliability through assessment of multiple fit indices (Bouwman, et al., 2017). The following statement is an example of one of the questions: "Our team works efficiently".

4.5.2 Measurement of self-leadership

The first independent variable of self-leadership was measured using the ASLQ (Abbreviated Self-Leadership Questionnaire) research instrument (Houghton, et al., 2012). Anderson and Prussia (1997) developed the first self-leadership assessment scale – SLQ (Self-Leadership Questionnaire). This questionnaire was originally built on the early self-leadership examples developed by Manz and Sims (1991). The original instrument comprised fifty items and was afflicted by some integral reliability and validity problems (Anderson & Prussia, 1997). Subsequently, Houghton and Neck (2002) revised the instrument RSLQ (Revised Self-Leadership Questionnaire) to thirty-five items; and this instrument demonstrated reasonable reliability and validity. Finally, Houghton, et al. (2012) developed the ASLQ, which proved to be 0.73 above the acceptable reliability threshold. Eight questions will be used from the ASLQ. The following statement is an example of one of the questions: "When I have successfully completed a task, I often reward myself with something I like".

4.5.3 Measurement of shared leadership

The second independent variable of shared leadership was measured using the SPLIT (Shared Professional Leadership Inventory for Teams) research instrument (Grille &

Kauffeld, 2015). The dynamic process of shared leadership is understood as a new form of management, and there appears to be an absence of empirical research and a scarcity of reliability and valid measures (Grille & Kauffeld, 2015). In response to this the SPLIT questionnaire has been developed. The tested model proved to have reliability ranging from 0.73 to 0.84. Twenty questions were used from SPLIT. The following statement is an example of one of the questions: "As a team, we monitor goal achievement".

Likert scale is the most commonly used scale in survey questionnaires, and a five-point Likert scale was used in all the team performance, self-leadership and shared leadership questions. In the demographic section, selection criteria used was suitable to the category. The informed consent and questionnaire are available in Appendix 1.

4.6 Data gathering process

Prior to distributing the questionnaire, a pre-test was conducted to determine whether the consent and questionnaire communicated clearly, as well as checking that the questions were easily understood. The participants of the pre-test were not used in the survey.

The distribution of the surveys were administered through an electronic format via Typeform™ to collect the data; and mitigate sampling error. A non-response error was likely to occur when people mailed do not respond (Phillips, Phillips & Aaron, 2013). The headmasters encouraged the potential participants to participate. Reminder emails were sent to encourage respondents to participate by answering the questionnaire provided, thus increasing the response rate. The benefit of using an emailed survey is that they allow a quick, easy and inexpensive means of data collection from a large group of people (Saunders & Lewis, 2012).

All employees at the schools were invited to participate in completing the questionnaire. The questionnaire link was sent out electronically via email to gather the data. In the body of the email, the purpose of the research was clearly stated and an appeal was made to the respondents to fill in the survey (Saunders & Lewis, 2012). Two reminder emails were sent out to make sure that the response rate was maximised (Phillips et al., 2013), as well as mitigating sampling error.

Informed consent was acquired from each respondent, and this consent was on the cover page of the electronic questionnaire. For the survey to be ethically compliant, the academically-approved questionnaire, with added demographic questions, was offered without incentive and was voluntarily completed. Permission from the school headmaster was obtained prior to the questionnaire being mailed. Once the willing participants had completed the questionnaire, the data was retrieved from the online platform for analysis.

Once the data was retrieved from the online platform, it was cleaned up. In the case of missing data, an average for that specific question was used, as long as there was less than ten per cent missing data in the total questionnaire (Hair, Black, Babin & Anderson, 2010). Once this process was completed the data was coded. The demographics were coded as nominal-scale categorical data, and all the Likert scales as interval data and given a numerical value. See the codebook in Appendix 2.

4.7 Statistical analysis process

The data analysis was complete by using the IBM SPSS (Version 22) statistical software.

Firstly, identified outliers needed to be removed. Outliers usually have a high or low value (Hair et al., 2010). Outliers were identified by using Mahalanobis distances, which measures how many standard deviations they are away from the mean. Outliers were also identified by using chi-square values, which determines the degrees of freedom at a probability of five per cent.

Secondly, validity and reliability of the three constructs were measured through the analysis process. Validity was determined by using the KMO (Kaiser-Meyer-Olkin) index, and the Bartlett's Test of Sphericity was used to determine the feasibility of the factor analysis. The KMO index measured sampling adequacy and should have a minimum of 0.6 for good factor analysis. The Bartlett's test of Sphericity determines the appropriateness of the data and should have a $p < 0.05$ to be significant.

Thirdly, the Kaiser criterion or eigenvalues were used to determine the amount of variation of the total sample according to each component (Field, 2016). Eigenvalues greater than 1.0 indicate more variance than the original variables, and applied parallel analysis determines which components should be retained. Depending on the outcome, a rotated component matrix was used to extract the greatest variance from the data to

reduce the variables to a small number of components. This process can be repeated if necessary to get the least number of components.

Fourthly, reliability was determined through using Cronbach's Alpha. The coefficient alpha should be between 0.70 and 0.80 to indicate acceptable reliability (Field, 2016). The corrected Item-Total Correlation was used as a further measurement for reliability. This correlates the individual item to total score from the questionnaire. A correlation of 0 indicates no correlation, 1.0 indicates a perfect correlation and -1.0 indicates a perfectly negative correlation. The scale is reliable if the coefficient is >0.3 in the Item-Total Correlation.

Fifthly, descriptive statistics were used to calculate the mean, median, standard deviation and skewness of all three constructs. The mean is the average value of the data, and the median is the middle value of the data. Standard deviation is how much the average squared deviation of each number differs from the mean value. Distribution curve is highly skewed if >1 , moderately skewed if between 0.5 and 1.0, and fairly symmetrical if between 0 and 0.5.

Finally, multiple regression statistics were used to explain the statistical significance of the relationship between the dependent and independent variables at a ninety-five per cent confidence interval, in order to remedy the research objectives. Multiple regression requires that certain assumptions are determined before the analysis can be conducted.

The following assumptions were made:

- Sample size – as previously discussed, a minimum of fifty respondents per dependent variable plus twenty respondents per independent variable was required, totalling a minimum of ninety respondents.
- Outliers – as previously discussed, outliers were determined by using Mahalanobis distance and chi-square values, and then removed.
- Normality – all variables will be normally distributed.
- Linearity – the relationship between the dependent variable (team performance) and the independent variables (self-leadership and shared leadership) must be linear.
- Multicollinearity – this occurs when there is a high correlation between independent variables, meaning that the one independent variable can predict the other one. This can skew the results in the regression analysis.

Multiple regression was used to forecast the dependent variable from the two independent variables. The two independent variables were tested with multiple regression in a predetermined order. This results in r^2 being able to test whether there is a significant amount of additional variance considered when the variables were entered. The predetermined order was first the demographic variables, second self-leadership and third shared leadership. The regression coefficients, or r^2 , show the strength of the relationship between the dependent variable and the independent variables. This shows the degree of variance in the dependent variable caused by either one of the independent variables or both of the independent variables.

4.8 Limitations

Limitations in this research have been recognised. The following limitations have been identified:

- Conducting the research in private schools in Pretoria could skew results, so comparisons should be considered with caution if compared to other cities or towns, or public schools.
- A cross-sectional research design gives snapshot results, and data collected over time may give different results.
- Non-probability sampling, specifically convenience sampling could present a risk of sampling bias.
- The research was substantiated in current theory and it is therefore possible that the said hypotheses may not represent the truth as the relationships between self-leadership, share leadership and team performance are measured.

4.9 Conclusion

The detailed methodology has been described in this chapter. This quantitative research methodology was used to examine the two suggested hypotheses – whether a relationship exists between team performance and self-leadership, and whether a relationship exists between team performance and shared leadership. Statistical analysis was used to determine validity and reliability. Multiple regression was used to determine whether a significant relationship exists between the variables.

The next chapter gives the results of the statistical analysis.

Chapter 5: Results

5.1 Introduction

This chapter describes the results of the quantitative survey with a research methodology that has been outlined in the previous chapter. The purpose of this study was to evaluate the two hypotheses; that of the relationship between team performance and self-leadership, and team performance and shared leadership. The results are presented according to the three constructs, and then the two research questions.

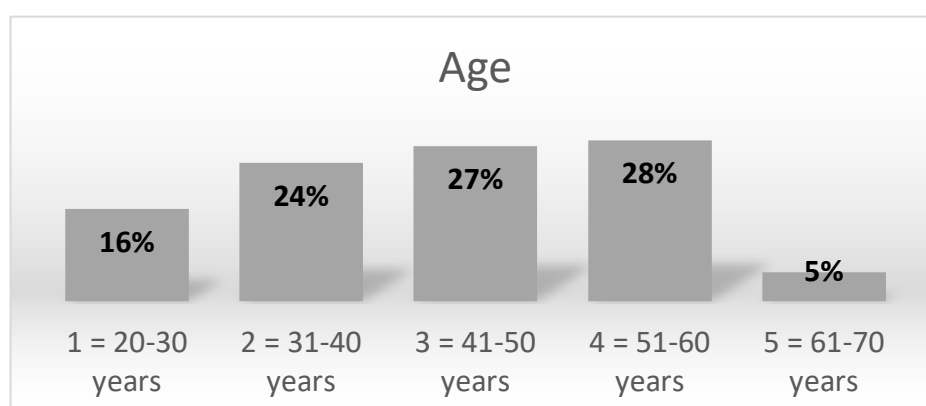
5.2 Sample description

A total of 332 staff from private schools in Pretoria were email with the link to the online survey – Typeform™. A total of 101 responses were received, giving a response rate of thirty per cent.

5.2.1 Current age

Figure 2 shows the percentages related to age. Most of the respondents (twenty-eight per cent) were in the fifty-one to sixty age group. Secondly, the forty-one to fifty age group is close behind at twenty-seven per cent. Thirdly, the thirty-one to forty age group at twenty-four per cent. Fourthly, the twenty to thirty age group at sixteen per cent. The fifth sixty-one to seventy age group made up a mere five per cent. The staff in general are more mature, with the three middle groups making up a majority of seventy-nine per cent of the staff.

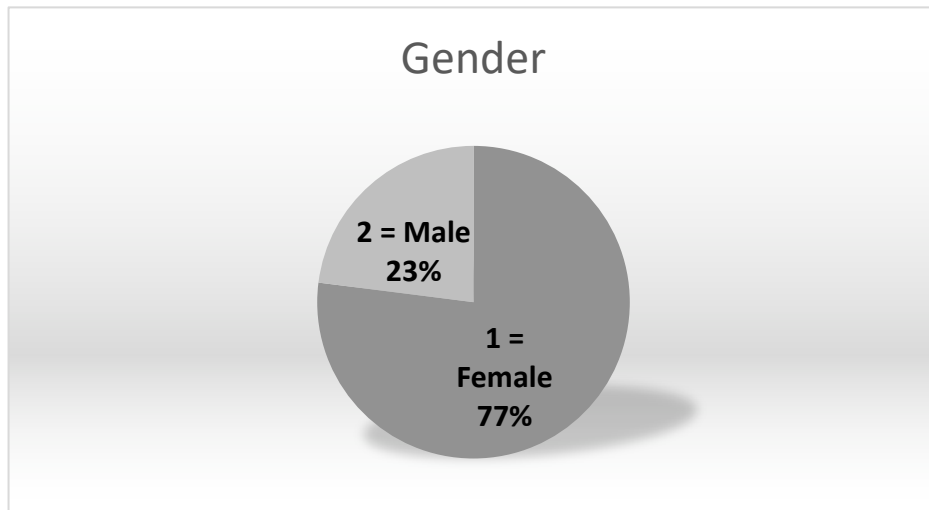
Figure 2 - Age distribution



5.2.2 Gender

Figure 3 shows the percentages associated with gender. Female staff dominates at seventy-seven per cent, with males at twenty-three per cent.

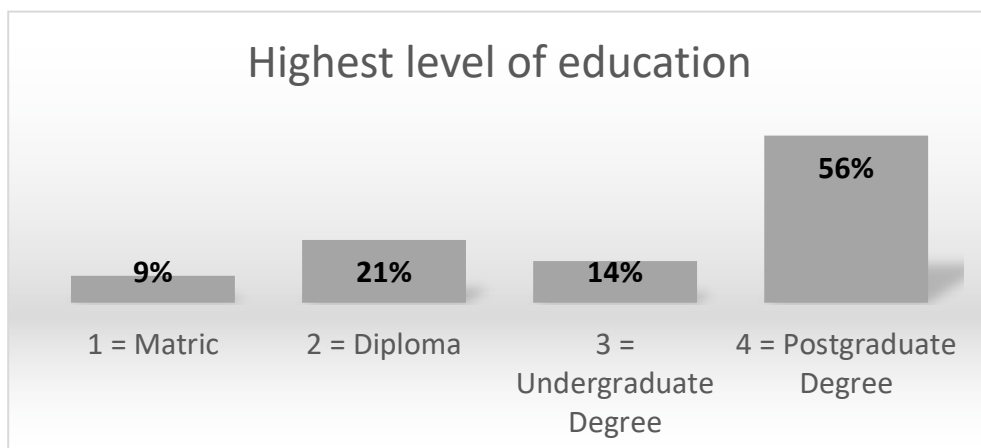
Figure 3 - Gender



5.2.3 Education

Figure 4 shows the percentages associated with education. The highest level of education is the postgraduate degree level at fifty-six per cent. Second, is diploma level at twenty-one per cent. Third, is undergraduate level at fourteen per cent. Fourth, is matric level at nine per cent. The post matric level of education makes up ninety-one per cent of the respondents, and just over half with postgraduate degrees.

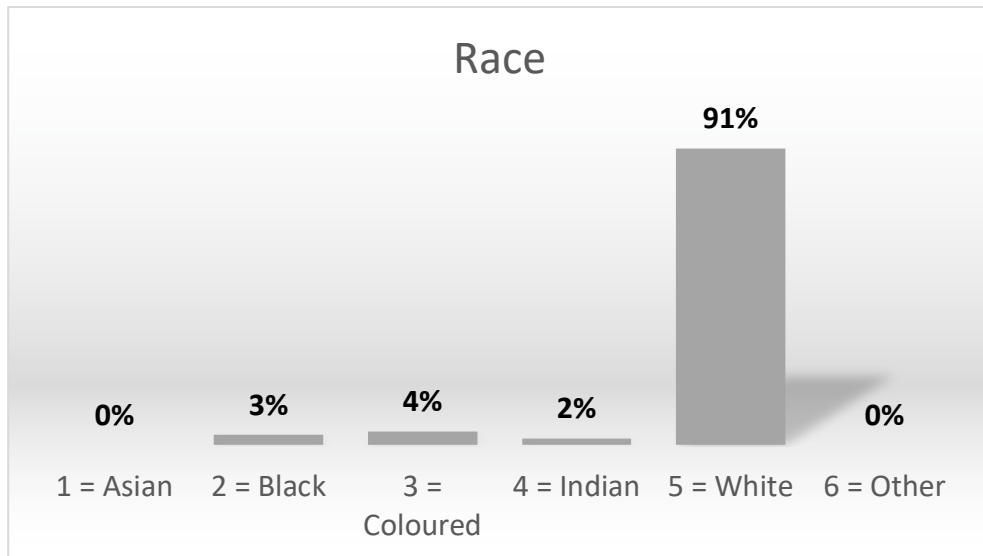
Figure 4 - Education



5.2.4 Race

Figure 5 shows the percentages associated with race. White dominates the race variable at ninety-one per cent. Black, Coloured and Indian make up the remaining nine per cent. Asian and Other do not feature in this respondent group.

Figure 5 - Race



5.2.5 Years with the organisation

Figure 6 shows the percentages associated with the amount of years respondents have been with the organisation. The majority of the respondents in the zero to two years group were thirty-nine per cent. Secondly, the three to five years group at twenty-eight per cent. Thirdly, the six to ten years group at twenty-six per cent. Finally, the eleven and more years group at seven per cent. The staff in general appear to be employed for shorter time periods – sixty-seven per cent less than five years and thirty-three per cent more than six years.

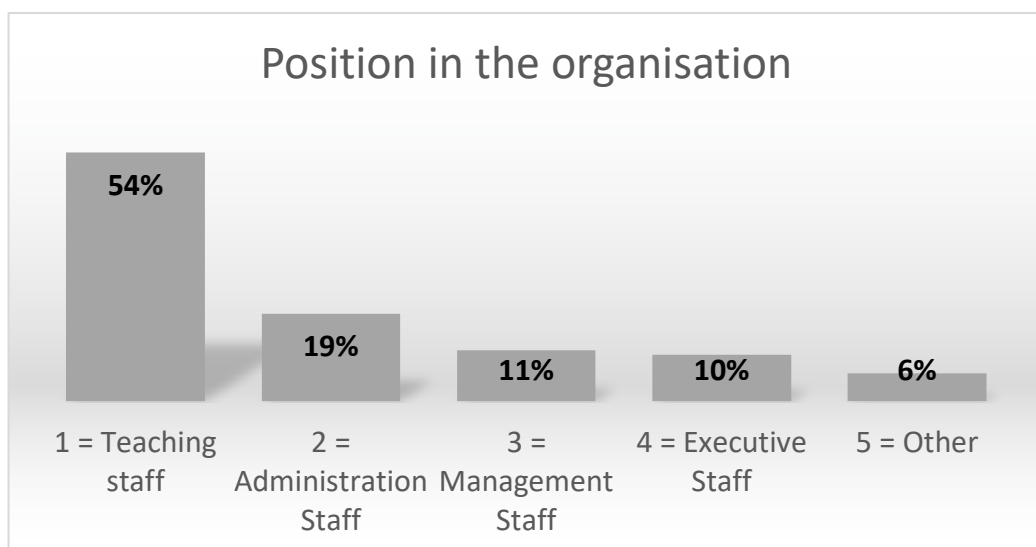
Figure 6 - Years with the organisation



5.2.6 Position in the organisation

Figure 7 shows the percentages associated with respondents' positions in the organisation. The majority of the respondents are teaching staff at fifty-four per cent. Secondly, the administration staff at nineteen per cent. Thirdly, the management staff at eleven per cent. Fourthly, the executive staff at ten per cent. Fifthly, the other staff at six per cent. The teaching staff is fifty-four per cent and the remaining staff combined make up forty-six per cent.

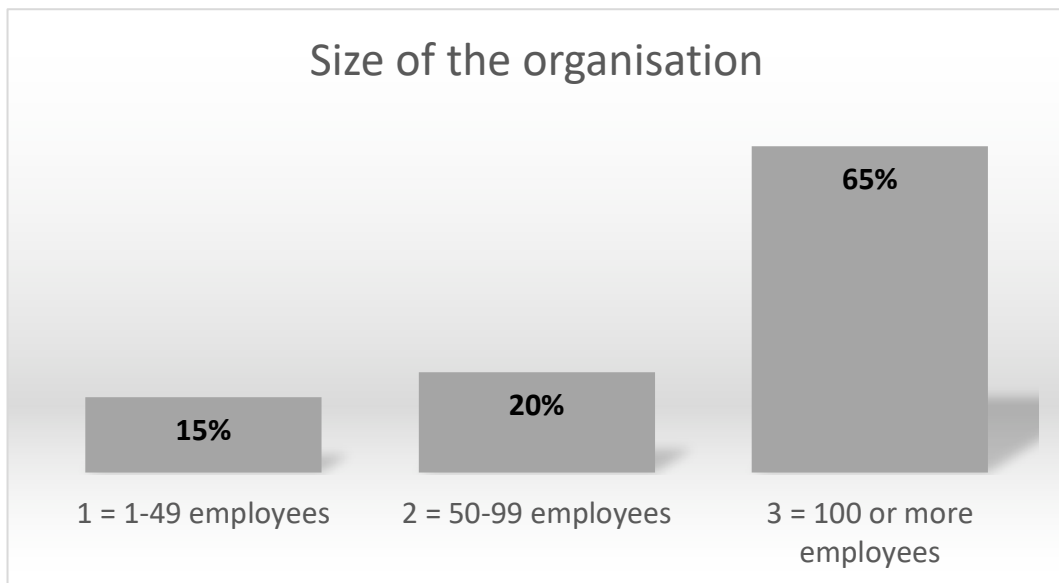
Figure 7 - Position in the organisation



5.2.7 Size of the organisation

Figure 8 shows the percentages associated with the size of the organisation that the respondents are in. The majority of the respondents are in an organisation of more than 100 employees at sixty-five per cent. Secondly, is an organisation of between fifty to ninety-nine employees at twenty per cent. Thirdly, is an organisation of between zero to forty-nine employees at fifteen per cent.

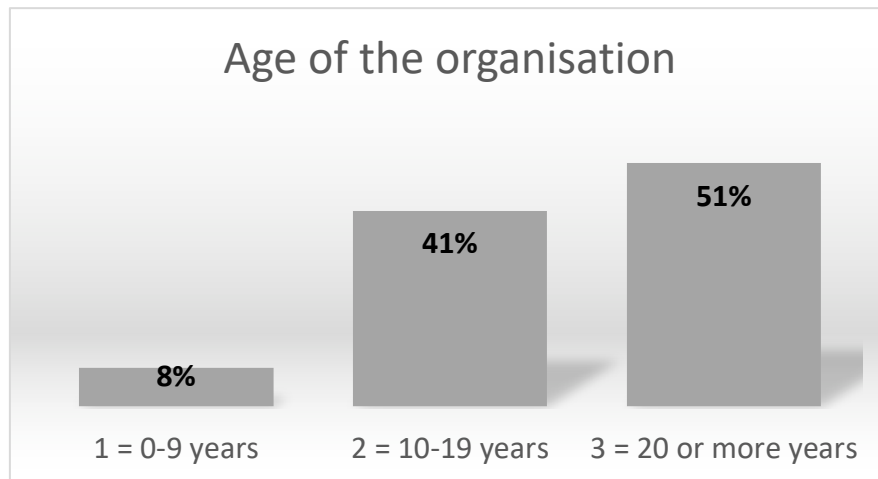
Figure 8 - Size of the organisation



5.2.8 Age of the organisation

Figure 9 shows the percentages associated with the age of the organisation that the respondents are in. The majority of the respondents are in an organisation of more than twenty years old at fifty-one per cent. Secondly, is an organisation of between ten to nineteen years old at forty-one per cent. Thirdly, is an organisation of between zero to nine years old at eight per cent.

Figure 9 - Age of the organisation



5.3 Team performance

The respondents were asked to assess team performance according to the sixteen questions from the HRM on the five-point Likert scale.

5.3.1 Validity and reliability of the team performance scale

The validity of the team performance scale was determined by using factor analysis. The scales were tested for sampling adequacy. Then, the data was also tested for appropriateness by using factor analysis.

Table 1 represents the KMO measurement for sampling competency yielding a value of 0.916, which is highly satisfactory as it is above the minimum acceptance level of 0.6. This acceptable KMO measure denotes that the data did meet the sampling adequacy standard for factor analysis. The Bartlett's Test of Sphericity ($p = 0.000$) was also statistically significant at 0.000 and therefore factor analysis was appropriate.

Table 1 - KMO and Bartlett's Test of Sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.916
Bartlett's Test of Sphericity	Approx. Chi-Square	1143.005
	Df	120
	Sig.	0.000

Table 2 represents the component analysis which indicates the total variance explained by the various components. The first three components are above the Eigenvalue of 1.000. The total variance of the three components is 70.89%. This indicates that the common variance share by the sixteen components can be accounted for by three factors for team performance. Therefore, a rotated component matrix was performed.

Table 2 - Variance Explained – Team Performance

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	8.790	54.940	54.940
2	1.387	8.671	63.610
3	1.164	7.276	70.886
4	0.651	4.071	74.957
5	0.646	4.035	78.992
6	0.535	3.341	82.333
7	0.498	3.116	85.449
8	0.423	2.642	88.090
9	0.390	2.439	90.530
10	0.292	1.824	92.353
11	0.285	1.782	94.136
12	0.247	1.543	95.679
13	0.218	1.364	97.042
14	0.188	1.173	98.216
15	0.147	0.919	99.135
16	0.138	0.865	100.000

Table 3 demonstrates that the rotated component matrix. The factor loadings met the minimum threshold of 0.4 and therefore all sixteen items were included in the scale.

Table 3 - Rotated Component Matrix – Team Performance

No.	Question	Components		
		1	2	3
TP1	Our team continuously improves and develops our educational programme.	0.279	0.776	0.132
TP2	Our team develops new ways to meet school, labour market and/or student demands.	0.276	0.879	0.109
TP3	Our team develops new materials and methods.	0.264	0.797	0.273
TP4	Our team knows how to constantly find improved ways to carry out teaching tasks.	0.217	0.528	0.482
TP5	Our team works efficiently.	0.212	0.260	0.768
TP6	Our team achieves its goals.	0.197	0.136	0.807
TP7	Our team spends the available time well.	0.325	0.092	0.799
TP8	In my team, team members give each other feedback.	0.748	0.275	0.218
TP9	In my team, team members exchange knowledge and information.	0.637	0.507	0.225
TP10	In my team, we challenge each other to look at our work in new ways.	0.820	0.212	0.144
TP11	In my team, we develop a shared understanding about our work approach.	0.782	0.205	0.331
TP12	In my team, we try to achieve a clear consensus.	0.662	0.378	0.299
TP13	In my team, we carefully listen to each other's ideas about work.	0.796	0.313	0.202
TP14	In my team, we consider whether there are better ways to deal with the work.	0.700	0.329	0.362
TP15	In my team, where possible, we try to form standard procedures.	0.482	0.393	0.454
TP16	In my team, professional information is disseminated to all team members.	0.402	0.656	0.170

Three themes were identified when reviewing the items in each component. The first theme was “Information processing” and included items TP8 – TP15. The second theme was “Team innovation” and included items TP1 – TP4, and TP16; while theme three was identified as “Team efficiency” and included items TP5 – TP7.

Table 4 shows the analysis of the alpha for individual items. When comparing each individual alpha with the Cronbach's Alpha of 0.944 it is evident that the removal of items would not cause significant improvement on the reliability of the scale. Therefore, all items remain included. A further measure, Item-Total Correlation, was used as an additional reliability measure. This measure compares the individual item score with the sum of all the scores. In this case the corrected Item-Total Correlation was used to calculate the coefficients. All correlation coefficients are greater than the acceptable 0.3. Therefore, all items are adequate for Item-Total Correlation.

Table 4 – Item-Total Statistics – Team Performance

Item	Question	Cronbach's Alpha if item deleted	Corrected Item-Total Correlation
TP1	Our team continuously improves and develops our educational programme.	0.942	0.647
TP2	Our team develops new ways to meet school, labour market and/or student demands.	0.941	0.694
TP3	Our team develops new materials and methods.	0.940	0.721
TP4	Our team knows how to constantly find improved ways to carry out teaching tasks.	0.942	0.630
TP5	Our team works efficiently.	0.943	0.607
TP6	Our team achieves its goals.	0.944	0.546
TP7	Our team spends the available time well.	0.943	0.601
TP8	In my team, team members give each other feedback.	0.940	0.720
TP9	In my team, team members exchange knowledge and information.	0.939	0.788
TP10	In my team, we challenge each other to look at our work in new ways.	0.941	0.695
TP11	In my team, we develop a shared understanding about our work approach.	0.939	0.763
TP12	In my team, we try to achieve a clear consensus.	0.939	0.765

TP13	In my team, we carefully listen to each other's ideas about work.	0.939	0.772
TP14	In my team, we consider whether there are better ways to deal with the work.	0.939	0.794
TP15	In my team, where possible, we try to form standard procedures.	0.940	0.721
TP16	In my team, professional information is disseminated to all team members.	0.941	0.679

Table 5 shows the Cronbach's Alpha as a reliable score of 0.944 with reliability between the multiple measurement of the scale.

Table 5 - Cronbach's Alpha – Team Performance

Reliability Statistics – Team Performance	
Number of Items	16
Cronbach's Alpha	0.944

5.3.2 Descriptive statistics for team performance

Table 6 shows the descriptive statistics for team performance. The mean score for team performance is 3.83, which denotes a high level of team performance. This value lies between “agreeable” and “mostly agree” on the Likert scale. The standard deviation of 0.701 indicates that there was moderate deviation on the individual responses from the main score, which means that there was moderate polarisation. The data was negatively skewed, although not of any significance. This does indicate that the mean is generally less than the median.

Table 6 - Descriptive Statistics for Team Performance

Descriptive Statistics for Team Performance	
N	100
Mean	3.83
Standard Deviation	0.701
Skewness	-0.346

5.4 Self-leadership

The respondents were asked to assess self-leadership according to the eight questions from the ASLQ questionnaire on the five-point Likert scale.

5.4.1 Validity and reliability of the self-leadership scale

The validity of the self-leadership scale was determined by using factor analysis. The scales were tested for sampling adequacy. Then, the data was also tested for appropriateness by using factor analysis.

Table 7 represents the KMO measurement for sampling competency yielding a value of 0.708, which is satisfactory as it is above the minimum acceptance level of 0.6. This acceptable KMO measure denotes that the data met the sampling adequacy standard for factor analysis. The Bartlett's Test of Sphericity ($p = 0.000$) was also statistically significant at 0.000 and therefore factor analysis was appropriate.

Table 7 - KMO and Bartlett's Test of Sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.708
Bartlett's Test of Sphericity	Approx. Chi-Square	221.917
	df	28
	Sig.	0.000

Table 8 represents the component analysis which indicates the total variance explained by the various components. The first three components are above the Eigenvalue of 1.000. The total variance of the three components is 67.66%. This indicates that the common variance share by the eight components can be accounted for by three factors for self-leadership. Therefore, a rotated component matrix was performed.

Table 8 - Variance Explained – Self-leadership

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	3.072	38.399	38.399
2	1.285	16.062	54.461

3	1.056	13.200	67.662
4	0.875	10.943	78.604
5	0.656	8.201	86.805
6	0.428	5.350	92.155
7	0.368	4.597	96.752
8	0.260	3.248	100.000

Table 9 demonstrates that the rotated component matrix has given a suitable result. Each matrix item with the highest load in each component was identified. This revealed that the items in each component loaded above the 0.4 cut-off and was therefore retained in the questionnaire.

Table 9 - Rotated Component Matrix – Self-leadership

No.	Questions	Component		
		1	2	3
SL 1	I set specific goals for my own performance (<i>self-goal setting</i>).	0.835	0.096	0.148
SL 2	I make a point of tracking how well I am doing at work (<i>self-observation</i>).	0.832	0.062	-0.093
SL 3	I work towards the specific goals I have set for myself (<i>self-goal setting</i>).	0.805	0.276	-0.170
SL 4	I visualise myself successfully performing a task before I do it (<i>visualising successful performance</i>).	0.668	0.164	0.313
SL 5	When I have successfully completed a task, I often reward myself with something I like (<i>self-reward</i>).	0.021	0.054	0.927
SL 6	Sometimes I talk to myself (out aloud or in my head) when working through difficult situations (<i>evaluating beliefs and assumptions</i>).	0.050	0.693	-0.166
SL 7	I try to mentally evaluate the accuracy of my own beliefs about situations I am having problems with (<i>self-talk</i>).	0.244	0.818	0.094
SL 8	I think about my own beliefs and assumptions whenever I encounter a difficult situation (<i>evaluating beliefs and assumptions</i>).	0.131	0.671	0.279

Three themes were identified when reviewing the items in each component. The first theme was “Performance” and included items SL1 – SL4. The second theme was “Belief system” and included items SL6 – SL8. Theme three was identified as “Reward system” and included items SL5.

Table 10 shows the analysis of the alpha for individual items. When comparing each individual alpha with Cronbach’s Alpha of 0.716, it is evident that the removal of items would not cause significant improvement on the reliability of the scale. Therefore, all items remain included. A further measure, Item-Total Correlation, was used as an additional reliability measure. All the items, with the exception of SL5 and SL6, are above 0.3, which shows adequate Item-Total Correlation. The total Cronbach Alpha will not increase substantially if any individual item is deleted, therefore all items remained in the scale.

Table 10 - Item-Total Statistics – Self-leadership

Item	Question	Cronbach’s Alpha if Item deleted	Corrected Item-Total Correlation
SL1	I set specific goals for my own performance (<i>self-goal setting</i>).	0.659	0.588
SL2	I make a point of tracking of how well I am doing at work (<i>self-observation</i>).	0.678	0.466
SL3	I work towards the specific goals I have set for myself (<i>self-goal setting</i>).	0.663	0.559
SL4	I visualise myself successfully performing a task before I do it (<i>visualising successful performance</i>).	0.661	0.520
SL5	When I have successfully completed a task, I often reward myself with something I like (<i>self-reward</i>).	0.762	0.135
SL6	Sometimes I talk to myself (out aloud or in my head) when working through difficult situations (<i>evaluating beliefs and assumptions</i>).	0.717	0.263
SL7	I try to mentally evaluate the accuracy of my own beliefs about situations I am having problems with (<i>self-talk</i>).	0.661	0.525

SL8	I think about my own beliefs and assumptions whenever I encounter a difficult situation (<i>evaluating beliefs and assumptions</i>).	0.692	0.387
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Table 11 shows Cronbach's Alpha as a reliable score of 0.716 with a moderately high level of reliability between the multiple measurement of the scale.

Table 11 - Cronbach's Alpha – Self-leadership

Reliability Statistics – Self-leadership	
Number of Items	8
Cronbach's Alpha	0.716

5.4.2 Descriptive statistics for self-leadership

Table 12 shows the descriptive statistics for self-leadership. The mean score for self-leadership is 3.85, which denotes a high level of self-leadership. This value lies between “a little accurate” and “mostly accurate” on the Likert scale. The standard deviation of 0.569 indicates that there was moderate deviation on the individual responses from the main score, which means that there was moderate polarisation. The data was negatively skewed, although not of any significance. This does indicate that the mean is generally less than the median.

Table 12 - Descriptive Statistics for Self-leadership

Descriptive Statistics for Self-leadership	
N	100
Mean	3.85
Standard Deviation	0.569
Skewness	-0.650

5.5 Shared leadership

The respondents were asked to assess shared leadership according to the twenty questions from the SPLIT questionnaire on the five-point Likert scale.

5.5.1 Validity and reliability of the shared leadership scale

The validity of the shared leadership scale was determined by using factor analysis. The scales were tested for sampling adequacy. Then, the data was also tested for appropriateness by using factor analysis.

Table 13 represents the KMO measurement for sampling adequacy to yield a value of 0.915, which is highly satisfactory as it is above the minimum acceptance level of 0.6. This acceptable KMO measure denotes that the data did meet the sampling adequacy standard for factor analysis. The Bartlett's Test of Sphericity ($p = 0.000$) was also statistically significant at 0.000 and therefore factor analysis was appropriate.

Table 13 - KMO and Bartlett's Test of Sphericity

Kaiser-Meyer-Olkin Measure of Sampling Adequacy		0.915
Bartlett's Test of Sphericity	Approx. Chi-Square	1305.391
	Df	190
	Sig.	0.000

Table 14 represents the component analysis which indicates the total variance explained by the various components. The first three components are above the Eigenvalue of 1.000. The total variance of the three components is 63.37%. This indicates that the common variance share by the twenty components can be accounted for by three factors for shared leadership. Therefore, a rotated component matrix was performed.

Table 14 - Variance Explained – Shared Leadership

Component	Initial Eigenvalues		
	Total	% of Variance	Cumulative %
1	10.220	51.100	51.100
2	1.348	6.739	57.839
3	1.106	5.532	63.371
4	0.926	4.630	68.001
5	0.839	4.194	72.195
6	0.785	3.925	76.120

7	0.651	3.253	79.373
8	0.510	2.551	81.925
9	0.497	2.487	84.412
10	0.477	2.385	86.797
11	0.455	2.273	89.070
12	0.358	1.792	90.862
13	0.318	1.590	92.452
14	0.298	1.492	93.944
15	0.281	1.404	95.348
16	0.234	1.169	96.517
17	0.227	1.133	97.650
18	0.177	0.885	98.535
19	0.156	0.781	99.315
20	0.137	0.685	100.000

Table 15 demonstrates that the rotated component matrix has given a suitable result. Each matrix item with the highest load in each component was identified. This revealed that the items in each component loaded above the 0.4 cut-off and was therefore retained in the questionnaire.

Table 15 - Rotated Component Matrix – Shared Leadership

No	Question	Components		
		1	2	3
SHL1	As a team, we clearly assign tasks.	0.228	0.812	0.098
SHL2	As a team, we clearly communicate our expectations.	0.368	0.616	0.301
SHL3	As a team, we provide each other with work relevant information.	0.460	0.574	0.283
SHL4	As a team, we ensure that everyone knows their tasks.	0.173	0.831	0.200
SHL5	As a team, we monitor goal achievement.	0.241	0.557	0.377
SHL6	As a team, we take sufficient time to address each other's concerns.	0.501	0.507	0.201
SHL7	As a team, we recognise good performance.	0.551	0.438	0.151

SHL8	As a team, we promote team cohesion.	0.455	0.627	0.088
SHL9	As a team, we support each other in handling conflicts within the team.	0.730	0.232	0.224
SHL10	As a team, we never let each other down.	0.638	0.315	0.269
SHL11	As a team, we help each other to correctly understand ongoing processes in our team.	0.709	0.327	0.190
SHL12	As a team, we help each other to learn from past events.	0.731	0.327	0.226
SHL13	As a team, we help each other to correctly understand current company events.	0.607	0.230	0.361
SHL14	As a team, we can inspire each other for ideas.	0.814	0.163	0.233
SHL15	As a team, we support each other with the implementation of ideas.	0.627	0.358	0.402
SHL16	We use networks in order to support our team's work.	0.449	0.206	0.704
SHL17	We ensure that our team is supported with the necessary resources to fulfil the task.	0.341	0.495	0.494
SHL18	As a team, we assist each other to network.	0.385	0.274	0.602
SHL19	We establish contact with important experts valuable for our team.	0.212	0.217	0.789
SHL20	As a team, we are open to external assistance in the event of internal team problems.	0.119	0.090	0.763

Three themes were identified when reviewing the items in each component. The first theme was “Relational and change leadership” and included items SHL7 and SHL9 – SHL15. The second theme was “Task leadership” and included items SHL1 – SHL6 and SHL8. Theme three was identified as “Support leadership” and included items SHL16 – SHL20.

Table 16 shows the analysis of Cronbach’s Alpha for individual items. When comparing each individual alpha with Cronbach’s Alpha of 0.948, it is evident that the removal of items would not cause significant improvement of the reliability of the scale. Therefore, all items remain included. A further measure, Item-Total Correlation, was used as an additional reliability measure. This measure compares the individual item score with the sum of all the scores. In this case the corrected Item-Total Correlation was used to

calculate the coefficients. All correlation coefficients are greater than the acceptable 0.3. Therefore, all items are adequate for Item-Total Correlation.

Table 16 - Item-Total Statistics – Shared Leadership

Item	Question	Cronbach's Alpha if item deleted	Corrected Item-Total Correlation
SHL1	As a team, we clearly assign tasks.	0.946	0.619
SHL2	As a team, we clearly communicate our expectations.	0.945	0.703
SHL3	As a team, we provide each other with work relevant information.	0.944	0.731
SHL4	As a team, we ensure that everyone knows their tasks.	0.946	0.644
SHL5	As a team, we monitor goal achievement.	0.946	0.619
SHL6	As a team, we take sufficient time to address each other's concerns.	0.945	0.684
SHL7	As a team, we recognise good performance.	0.946	0.653
SHL8	As a team, we promote team cohesion.	0.945	0.662
SHL9	As a team, we support each other in handling conflicts within the team.	0.945	0.689
SHL10	As a team, we never let each other down.	0.945	0.696
SHL11	As a team, we help each other to correctly understand ongoing processes in our team.	0.945	0.717
SHL12	As a team, we help each other to learn from past events.	0.944	0.745
SHL13	As a team, we help each other to correctly understand current company events.	0.945	0.669
SHL14	As a team, we can inspire each other for ideas.	0.945	0.708
SHL15	As a team, we support each other with the implementation of ideas.	0.943	0.783

SHL16	We use networks in order to support our team's work.	0.944	0.723
SHL17	We ensure that our team is supported with the necessary resources to fulfil the task.	0.945	0.710
SHL18	As a team, we assist each other to network.	0.945	0.667
SHL19	We establish contact with important experts valuable for our team.	0.946	0.611
SHL20	As a team, we are open to external assistance in the event of internal team problems.	0.949	0.459

Table 17 shows Cronbach's Alpha as a reliable score of 0.948 with reliability between the multiple measurements of the scale.

Table 17 - Cronbach's Alpha – Shared Leadership

Reliability Statistics – Shared leadership	
Number of Items	20
Cronbach's Alpha	0.948

5.5.2 Descriptive statistics for shared leadership

Table 18 shows the descriptive statistics for shared leadership. The mean score for shared leadership is 3.68 ,which denotes a high level of shared leadership. This value lies between “a little applicable” and “mostly applies” on the Likert scale. The standard deviation of 0.687 indicates that there was moderate deviation on the individual responses from the main score, which means that there was moderate polarisation. The data was negatively skewed, although not to any significant level. This does indicate that the mean is generally less than the median.

Table 18 - Descriptive Statistics for Shared Leadership

Descriptive Statistics for Shared Leadership	
N	100
Mean	3.68
Standard Deviation	0.687
Skewness	-0.669

5.6 Multiple regression

Multiple regression is a statistical tool that analyses the relationship between one dependent variable and several independent variables (Hair, 2010). This is suitable for this study as there is one dependent variable and two independent variables. The purpose of multiple regression analysis is to use the known values of the independent variables to forecast the value of the dependent variable (Hair, 2010). He also suggests that the weighted independent variables form the regression model that best predicts the dependent variable.

To start the process, all the assumptions for regression analysis will be assessed, to check that all assumptions were met. Then the multiple regression analysis will be performed to determine the character of the relationships between variables according to the regression model. The results are shown in Tables 19 and 20.

Table 19 - Model Summary – Team Performance

Model	F Change	R	R Square	Adjusted R Square
1	9.061	0.291 ^a	0.085	0.075
2	103.536	0.746 ^b	0.557	0.548
a. Predictors: (Constant) - SL Total				
b. Predictors: (Constant) - SL Total, SHL Total				
c. Dependent Variable: TP Total				

In Table 19, R Square is used as an indication of how much of the variability in team performance as an outcome is accounted for by the predictors. Self-leadership in Model 1 explains 8.5% of the variance in team performance, while shared leadership in Model 2 explains the majority of the variance in team performance with 55.7%.

As indicated in Table 20, in both self-leadership the p-values (p-value = 0.003; F = 9.061) and shared leadership (p-value = 0.000; F = 61.039) are less than 0.05 and statistically significant at a ninety-five confidence interval.

Table 20 - Coefficients of Team Performance

Model		Sum of Squares	df	F	Sig.
1	Regression	1054.103	1	9.061	0.003 ^b
	Residual	11400.897	98		
	Total	12455.000	99		
2	Regression	6940.356	2	61.039	0.000 ^c
	Residual	5514.644	97		
	Total	12455.000	99		
a. Dependent Variable: TP Total					
b. Predictors: (Constant) - SL Total					
c. Predictors: (Constant) - SL Total, SHL Total					

5.6.1 Hypothesis 1 – Self-leadership

Research question 1 – Can it be forecast, with equitable accuracy, that a relationship exists between team performance and self-leadership?

- **Null hypothesis one (H₀₁)**
No significant relationship exists between team performance and self-leadership.
- **Alternate hypothesis one (H₁₁)**
A significant relationship exists between team performance and self-leadership.

The statistical analysis results show that self-leadership predicts a mere 7.5% of the variance on team performance. Self-leadership was a statistically significant predictor of

team performance ($R^2=.085$, $F(9,061)$, $p<.05$). The results show that null hypothesis was rejected, and the alternate hypothesis accepted at a ninety-five per cent confidence level.

5.6.2 Hypothesis 2 – Shared leadership

Research question 2 – Can it be forecast, with equitable accuracy, that a relationship exists between team performance and shared leadership?

- **Null hypothesis two (H_02)**

No significant relationship exists between team performance and shared leadership.

- **Alternate hypothesis two (H_12)**

A significant relationship exists between team performance and shared leadership.

The statistical analysis results show that shared leadership predicts a 54.8% of the variance on team performance. Shared leadership was a statistically significant predictor of team performance ($R^2=.557$, $F(61,039)$, $p<.05$). The results show that null hypothesis was rejected, and the alternate hypothesis accepted at a ninety-five per cent confidence level.

5.7 Conclusion

The statistical analysis was based on the two research questions. The analysis produced results to determine satisfactory levels of reliability, internal consistency and variable validity of the data. The multiple regression supported the statistical analysis to reject the null hypothesis in both research questions. This means that there is a significant relationship between team performance and self-leadership; and team performance and shared leadership. In Chapter 6 these results will be discussed in relation to the existing literature.

Chapter 6: Discussion of results

6.1 Introduction

The aim of this study was to determine whether a relationship exists between team performance and self-leadership, and team performance and shared leadership. In this chapter a detailed comparison between the research findings in Chapter 5 will be discussed in relation to the literature reviewed in Chapter 2, and in relation to the research questions.

The research questions are:

Research question 1 – Can it be forecast, with equitable accuracy, that a relationship exists between team performance and self-leadership?

Research question 2 – Can it be forecast, with equitable accuracy, that a relationship exists between team performance and shared leadership?

A pre-test was administered on the prepared survey questionnaire. The pre-test was completed by six people, to validate the communication and understanding of the test. These six people were not used in the final sample. The final sample was completed by 101 respondents. According to Mahalanobis distance and chi-square values, one outlier was found and removed to leave the credible respondents at 100. The acceptable sample size is ninety (Knofczynski & Mundfrom, 2007), which means that the 100 respondents make a more than acceptable sample size to determine an appropriate statistical analysis.

6.2 Demographic overview

The demographic variables did not form part of the multiple regression analysis. However, there are some interesting facts that could influence the results of this study, and give reason for further research.

The age of the respondents was more mature with sixty per cent being over forty years old, which could positively influence team performance because of their years of experience. However, Bouwmans et al. (2017) found that teachers historically had not been expected to participate in deep levels of collaboration, and human resource

practice is being introduced to stimulate teamwork, and eventually team performance. Yet, they found that more mature employees did display team efficiency. The majority of the respondents are female, which is typical in most, if not all, schools in South Africa. According to, Bouwmans et al. (2017), females reported less information processing than men, which could slow managerial growth and team development. More than half of the respondents have postgraduate education, which could potentially assist the learning that needs to take place to develop team and team performance (Bouwmans et al., 2017).

The vast majority of respondents were white, which is a clear indication of South Africa's past and its inequality (Department of Education, 1995). More than half the respondents are teaching staff, thereby leaving the remaining staff to be on various administration levels. This confirms the need for not only good teachers, but also good administration staff within schools (Department of Education, 1995).

The results indicated that in this sample the schools were mostly over 100 employees and have been in existence for more than twenty years, which suggests some sort of stability. However, nearly seventy per cent of the respondents' years with the organisation is below five years, which does not speak of stability. This conflict could be due to the history of South Africa and the negative atmosphere around education. According to Lucas and Byrne (2017), their Effectively Maintained Inequality Study showed low levels of education and high levels of discouragement.

Further research could be done on age, gender and race to investigate why there are few young people involved with education, few males in education and few people of various ethnicity in education, and if these factors would impact team performance.

6.3 Variables overview

The three variables will be considered to compare the literature reviewed and the results.

6.3.1 Team performance

Team Performance was measured by using the sixteen-item HRM measurement scale (Bouwmans et al., 2017). To determine the validity of this scale, factor analysis was used. All sixteen items observed high in the factor analysis, which meant that all the items

remained in the scale. Reliability was also determined by using Cronbach's Alpha. The coefficient observed is 0.94 indicating reliability with high internal consistency, which is in close range of a Cronbach coefficient of 0.87, found by (Bouwman et al., 2017).

The mean score of 3.83 shows high levels of team performance, which lies between "agreeable" and "mostly agreeable" on the Likert scale, even though Bouwman et al. (2017) found team performance on a lower level. The high level of team performance found in the results could be due to the sample being from private schools, which are more desired organisations to teach in. The standard deviation of 0.701 does indicate that individual responses did deviate moderately, which means that there was moderate polarisation. The data was marginally skewed, which means that the mean is slightly less than the median – see Appendix 4.

Teams and their performance are becoming the norm (Boies et al., 2015), and they are becoming the building blocks of organisations (Bouwman et al., 2017). The team performance component transformation matrix identified three themes – information processing, team innovation and team efficiency – which compliments the findings of the research done by Bouwman et al. (2017), Barnett and Weidenfeller (2016), D'Innocenzo et al. (2016), Mahembe et al. (2013) and Politis (2015). Developed information processing, team innovation and team efficiency increases team performance resulting in teams being able to achieve greater outputs.

6.3.2 Self-leadership

Self-leadership was measured by using the eight-item ASLQ measurement scale (Houghton et al., 2012). Factor analysis was used to determine the validity of this scale. All eight items observed high in the factor analysis, which meant that all the items remained in the scale. Reliability was also determined by using Cronbach's Alpha. The coefficient observed is 0.72 which indicates reliability with adequate internal consistency. Houghton et al. (2012) analysis of ASLQ suggest that it is reliable and valid, and that it receives the nomological network of associations from the initial thirty-five item version of the RSLQ (Revised Self-Leadership Questionnaire).

The mean score of 3.85 shows high levels of self-leadership, which lies between "a little accurate" and "mostly accurate" on the Likert scale. Houghton et al. (2012) also found the scale to show high levels of self-leadership. The standard deviation of 0.569 does

indicate that individual responses did deviate moderately, which means that there was moderate polarisation. The data was marginally skewed, which means that the mean is slightly less than the median – see Appendix 4.

The concept of self-leadership appeared as an expansion of self-management theory, self-control theory and self-regulating theory (Houghton & Neck, 2002; Neck & Houghton, 2006). Self-leadership is the practice by which people self-influence positively to behave and perform desirably, both individually and in teams (Manz et al. 2015), which supports the findings of great levels of self-leadership. The self-leadership component transformation matrix identified three themes: performance, reward system and belief system. These three themes relate closely to the three secondary constructs, being behavioural focus strategy, constructive thought patterning and natural reward strategy, which have been well-researched (Hauschildt & Konradt, 2012; Ho & Nesbit, 2013; Mahembe et al., 2013; Stewart et al., 2011; Politis, 2015). However, Houghton et al. (2012) found in their study that there were also three distinct factors: behaviour mindfulness and desire, task incentive and constructive reasoning. These factors relate to behavioural focus strategy and constructive thought patterning, but not to researched natural reward strategy, nor belief system which is one of the themes found in this study.

6.3.3 Shared leadership

Shared leadership was measured by using the twenty-item SPLIT measurement scale (Grille & Kauffeld, 2015). Factor analysis was used to establish the validity of this scale. All twenty items observed high in the factor analysis, which meant that all the items remained in the scale. Reliability was also determined by using Cronbach's Alpha. The coefficient observed is 0.95, indicating reliability with high acceptable internal consistency. Grille and Kauffeld (2015) found that there was no reliable shared leadership scale, so using leadership and teamwork research they developed SPLIT measurement scale. The scale was tested on two samples and found to be valid and reliable in both (Grille & Kauffeld, 2015). They determined the Cronbach Alpha coefficient at 0.84 in these studies.

The mean score of 3.68 shows a high levels of shared leadership, which lies between “a little applicable” and “mostly applies” on the Likert scale. Grille and Kauffeld (2015) also found the scale to show high levels of shared leadership. The standard deviation of 0.687 does indicate that individual responses did deviate moderately, which means that there

was moderate polarisation. The data was marginally skewed which means that the mean is slightly less than the median – see Appendix 4.

Multiple leaders date back to the early 1900s (D’Innocenzo et al., 2016). However, theory suggests that shared leadership has developed from traditional leadership (Ensley et al., 2006), where leaders pass on their leadership authority, and they are content to follow their peers (Chiu et al., 2016; D’Innocenzo et al., 2016). D’Innocenzo et al. (2016) claim positive benefits in shared leadership, which supports the findings in this research. The positive outcomes of shared leadership are team effectivity, innovation, team productivity, intelligence, establishing goals and problem solving (Barnett et al., 2006; D’Innocenzo et al., 2016; Erkutlu, 2012; Hoch, 2013; Nicolaidis et al., 2014). However, D’Innocenzo et al. (2016) does argue that complex team tasks, team size and transformational leadership relate negatively.

6.4 Research question 1

Can it be forecast, with equitable accuracy, that a relationship exists between team performance and self-leadership? Does this relationship exist?

The null hypothesis states that there is no significant relationship between team performance and self-leadership – (H_0). The alternate hypothesis states that there is a significant relationship between team performance and self-leadership – (H_1).

6.4.1 Interpretation of results

The statistical analysis results show that self-leadership predicts 7.5% of the variance on team performance. Self-leadership was a statistically significant predictor of team performance ($R^2=.085$, $F(9,061)$, $p<.05$). The results show that the null hypothesis was rejected, and that the alternate hypothesis accepted at a ninety-five per cent confidence level. There is a relationship between team performance and self-leadership. However, self-leadership has a small percentage of the outcome, meaning that a more than ninety per cent prediction on team performance would be to other interrelated independent variables. Examples of other predictors are team learning (Barnett & Weidenfeller 2016), team-oriented human resource practices (Bouwman et al., 2017), changing environment (Decuyper et al., 2010), inspirational motivation and intellectual stimulation (Boies et al., 2015), and mentoring and coaching (Stewart et al., 2011).

Even though the predictive relationship has a very low value, literature supports this relationship between team performance and self-leadership. Manz (2015) suggests that self-leadership is at the core of the organisation, and can affect behaviour, work attendance, employee effort, cognition, choices and satisfaction. Self-leadership has three secondary constructs – behavioural focus strategy, constructive thought patterning and natural reward strategy – which have been well-researched as discussed previously. According to Hauschildt and Konradt (2012), self-leadership team members who relate positively to team-oriented behaviours (like team member ability, team member ability to adjust and team member ability to be pre-emptive) impacts team performance, which affects business management with confidence. Open communication, task coordination and adapting to change positively also impacts team performance (Stewart et al., 2011), however negative characteristics affect the team adversely. Perhaps more negative characteristics have been experienced by the respondents resulting in the relationship being lower. Conflict requires a quick non-emotional resolve (De Dreu & Weingart, 2003), as one “bad apple” can challenge the entire team (Bell, 2007). Business today needs mature employees who can take self-leadership, which is at the heart of the organisation, to a higher road (Manz, 2015).

6.5 Research question 2

Can it be forecast, with equitable accuracy, that a relationship exists between team performance and shared leadership? Does this relationship exist?

The null hypothesis states that there is no significant relationship between team performance and shared leadership – (H_02). The alternate hypothesis states that there is a significant relationship between team performance and shared leadership – (H_12).

6.5.1 Interpretation of results

The statistical analysis results show that shared leadership predicts a 54.8% of the variance on team performance. Shared leadership was a statistically significant predictor of team performance ($R^2=.557$, $F(61,039)$, $p<.05$). The results show that the null hypothesis was rejected, and that the alternate hypothesis accepted at a ninety-five per cent confidence level. There is a relationship between team performance and shared leadership. Shared leadership prediction is much higher than self-leadership in relation

to team performance. This means that teams who focus on and develop shared leadership could expect the team performance to increase significantly which will result in increased output from the team.

Current literature supports the findings of this study. According to Barnett and Weidenfeller (2016), shared leadership has been built on participative resolve, communal exchange theory, self-leadership, self-managing teams, enablement and shared reasoning over the past four decades. They suggest that shared leadership outcomes are improved team performance, effectiveness, innovation and learning. D'Innocenzo et al., (2016) suggest that shared leadership is a greater forecaster of team performance than traditional leadership, which supports these results. Grille and Kauffeld (2015) found that when team members nominate leaders within the team, a high degree of shared leadership is shown. The one person who is expected to know everything is being replaced by a team of knowledge employees (Chiu et al., 2016).

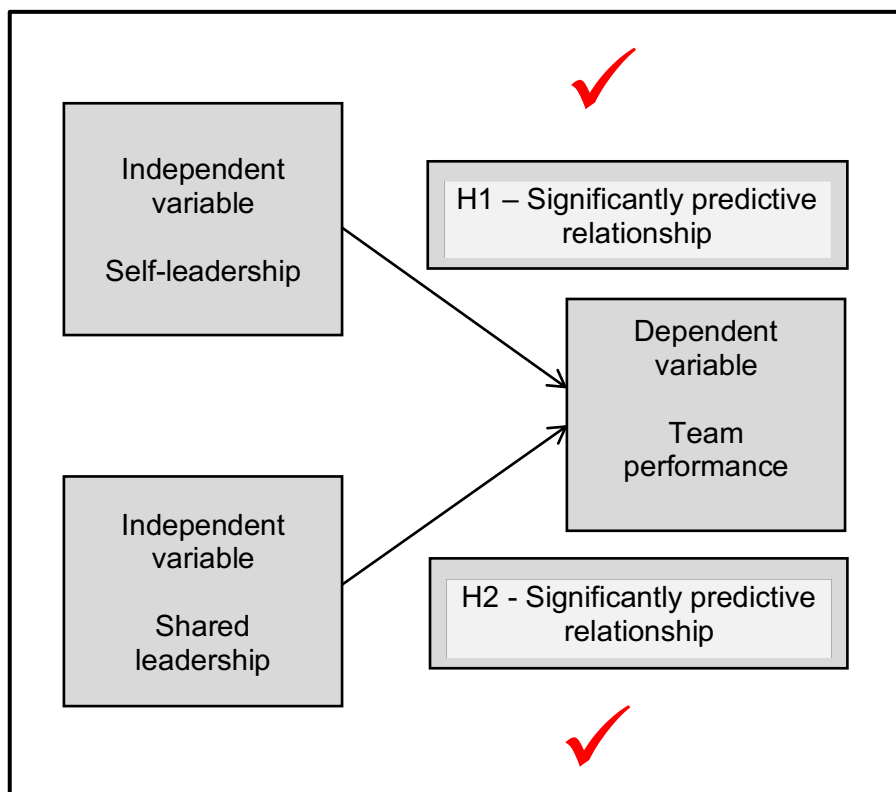
Nicolaides et al. (2014) found that shared leadership mediators and moderators affect team performance. He found that the partial mediator (team confidence), the mediator (trust behaviour), the moderator (high interdependence), and the moderator (positive affective tone) had a confident effect on team performance. However, he also found that the moderator (team size and team task) related negatively. Chiu et al, (2016) found that the relationship between shared leadership and team performance has been well-documented, however they suggest that there are still large amounts of unexplained variance.

Literature suggests that there is a relationship between self-leadership and shared leadership. According to Manz et al. (2015), both well-developed self-leadership and shared leadership will confidently impact team performance. Pearce and Manz (2005) suggest that there are five factors that influence the suitability of self-leadership and shared leadership, which include the level of perseverance, the value of employee commitment, the required innovation, the degree of independence and intricacy. These factors can be developed to impact higher team performance resulting in managerial benefit.

6.6 Conclusion

The results for this study found that both independent variables, self-leadership and shared leadership, are significant predictors of team performance. These findings are supported by literature. However, there is some literature that disagrees, providing opportunity for further research. Figure 10 displays a summary of the findings.

Figure 10 - Summary of Findings



The principal findings, implications for theory, implication for management, limitations of the research and recommendations for future research will be discussed in the next chapter.

Chapter 7: Conclusion

7.1 Introduction

An overview of the principle finding will be discussed alongside the variables and their theory. This research has shown both academic and managerial value. Management implication will be discussed directly relating team performance to the sample used for this study. Limitations and recommendations for future research will be considered.

7.2 Principle findings

This study attempted to establish whether a significant relationship existed between team performance and self-leadership; and between team performance and shared leadership.

Team performance is based on human resource theory (Bouwman et al., 2017). Bouwman et al. (2017) suggest that innovation, efficiency and information processing form the base of team performance, which aligns with the HRM measurement tool used and the results of this study. Boies et al. (2015) found that communication nurtured innovation and efficiency, and innovation encouraged problem solving (Barnett & Weidenfeller, 2016). Goal setting enhances efficiency (Ho & Nesbit, 2013), and collective intellectual learning stimulates information processing (Boies, 2015).

Self-leadership has emerged as an expansion of self-management theory, self-control theory and self-regulating theory (Houghton & Neck, 2002; Neck & Houghton, 2006). Self-leadership is the practice by which people self-influence positively, to behave and perform desirably, which positively impacts team performance (Manz et al. 2015). According to Houghton et al. (2012), self-leadership is based on behavioural focus strategy, natural reward strategy and constructive thought pattern strategy (Hauschildt & Konradt, 2012; Mahembe et al., 2013; Manz et al. 2015; Politis, 2015). According to Hauschildt and Konradt (2012), behavioural change occurs when goals are set, pursued and evaluated with built-in rewards (Manz et al., 2015), and belief and cognition support constructive thought patterning (Hauschildt & Konradt, 2012). These dimensions of self-leadership impacted team performance.

The concept of shared leadership arises from traditional leadership theories (Ensley et al., 2006) where leadership authority is passed on within the team, and they willingly follow their peers (Chiu et al., 2016; D’Innocenzo et al., 2016). The positive outcomes of shared leadership are team effectivity, innovation, team productivity, intelligence, establishing goals and problem solving (Barnett et al., 2006; D’Innocenzo et al., 2016; Erkutlu, 2012; Hoch, 2013; Nicolaidis et al., 2014), which aligns with the SPLIT measurement tool used in this study with outcomes of relational and change leadership, and task and support leadership. These dimensions of shared leadership impacted team performance. However, D’Innocenzo et al. (2016) does argue that complex team tasks, team size and transformational leadership relate negatively.

7.3 Implications for management

The results of this study give insights for managers – the executive staff in private schools.

Teams are a popular model, and they are a critical part of organisations (Boies et al., 2015). These building blocks are required for organisations to perform (Bouwman et al., 2017). Team performance will assist executive staff to reach set goals so that they become more optimal (Boies et al., 2015). They also provide advantage over the individual by offering cumulative expertise, resources, different perspectives, and challenging decision making and problem solving skills (Bouwman et al., 2017), which can ultimately be useful for managers to reach targets and goals.

Self-leadership is the process by which people self-influence positively to improve outputs (Manz et al., 2015). Organisations are looking more and more towards employees having high levels of capacity and skill in self-leadership so that organisations can reach targets (Ho & Nesbit, 2013). This developed self-leadership skill will assist executive staff to reach desired targets. The continuous improvement through self-leadership (Politis, 2015) encourages staff to self-direct and self-motivate (Ho & Nesbit, 2013), which is recommended to impact team performance. Manz (2015) found that practised self-influence can take self-leadership to a higher road, and suggests that self-leadership is at the heart of organisation behaviour and affects work attendance, employee effort, cognition, choices and satisfaction. These are recommended behaviours for the employees at private schools. The schools should establish a learning

platform so that leadership change can be encouraged, which will assist teams in performing optimally (Pearce & Manz, 2014).

Shared leadership is a vibrant process where the one person in charge and expected to know everything is being changed by a team of knowledge employees (Chiu et al., 2016). This type of leadership is recommended to employee teams in private schools so that innovation is enhanced, team effectiveness is reached and mutual learning can take place (Barnett & Weidenfeller, 2016), thereby enhancing both teacher and administrative staff's team performance.

In light of both independent variables having a significant relationship with team performance, Pearce and Manz (2005) suggest that these are the silver bullets of a new era of leadership in the twenty-first century. It is no longer the top-down pressure of traditional leadership, but a less restrictive bottom-up pressure of a highly educated workforce who do not just want to work for a pay cheque.

7.4 Limitations of the research

The limitations of this research are directly related to the sample, that of employees at private schools in Pretoria. Firstly, the sample used was a convenience non-probability sample, which could present a bias on the results. Secondly, by including only private schooling in Pretoria, it is limited in that other private and public schools could have been included to provide more perspective. Thirdly, a cross-sectional research design gives snap-shot results, and data collected over time may give different results. Taking these limitations into consideration, the results could differ marginally or dramatically.

7.5 Recommendations for future research

The findings, theories and current literature have been reviewed. These are the recommendations for future research.

Team performance

- To further validate these results, the research can be done in various private schools in Pretoria; or other cities and towns in South Africa; or in public schools in towns and cities in South Africa. Public schools are not producing good results compared to private schools (de Villiers, 2018), and collaboration would give a

platform to learn from one another. A qualitative study could be considered to get richer data to gain specific insights.

- A single independent private school can be compared to a group of independent private schools (Curro Colleges or Crawford Colleges) to determine whether differences would impact research positively or negatively.
- The effect of human resource strategies (Bouwman et al., 2017) can be evaluated against team performance to determine whether they would increase team performance.
- Further research can be considered to determine whether specific ages, genders and race relate to team performance in the education environment.

Self-leadership

- Hands-on coaching from either internal or external leaders on self-leadership can be measured to determine whether it increases the impact on team performance (Stewart et al., 2011).
- Other independent variables can be tested against team performance to develop a richer understanding so that the team performance impact could be broadened, thereby resulting in a greater influence on organisations. Other predictors are team learning (Barnett & Weidenfeller 2016), team-oriented human resource practices (Bouwman et al., 2017), changing environment (Decuyper et al., 2010), inspirational motivation and intellectual stimulation (Boies et al., 2015) and mentoring and coaching (Stewart et al., 2011).

Shared leadership

- Shared leadership complexities, such as team task, transformational leadership and team size can be researched against team performance (D'Innocenzo et al., 2016). Chiu et al., (2016) found that even though shared leadership and team performance has been well-recorded, there is unexplained variance that can be researched like network density, humility and culture.

7.6 Conclusion

Teams are a popular and critical part of an organisation's success today, particularly in education settings like private schooling. Team performance is seen as a building block to sustaining competitive advantage for organisational effectiveness. Self-leadership has the potential to be developed to impact the individual, the team and the organisation, and increase its relationship to team performance. Shared leadership is a team of knowledge workers who can interactively achieve more than the individual, which has the potential to positively impact team performance. The results of this research has provided insight to stimulate further research so that team performance can be further enhanced, which will impact organisations positively. These results also offer tools, which, if implemented, will provide organisational success stories.

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Appendices

1. Informed consent and questionnaire

Dear Respondent,

I am current studying for my MBA at the Gordon Institute of Business Science, University of Pretoria. This survey forms part of my research project, and I would appreciate you taking 10-15 minutes of your time to fill in the questionnaire. This survey is to obtain your observation on self-leadership and shared leadership in relation to team performance.

Your participation is voluntary and you can withdraw at any time without penalty. All data will be treated with confidentiality.

By completing the survey, you are confirming that you are voluntarily participating in this research, for which I am most grateful. If you have any concerns please contact me or my supervisor. Thank you.

Researcher - Ingrid Trusler

Email – ingridtrusler@gmail.com

Cell – 083 378 5624

Research Supervisor – Anel Meintjies

Email – anelrdsa@gmail.com

Cell – 083 283 0712

1. Your age:
 1. 20 – 30
 2. 31 – 40
 3. 41 – 50
 4. 51 – 60
 5. 61 – 70

2. Your gender:
 1. Female
 2. Male

3. Your highest level of education:
 1. Matric
 2. Diploma
 3. Undergraduate Degree
 4. Postgraduate Degree

4. Your race group:
 1. Asian
 2. Black
 3. Coloured
 4. Indian
 5. White
 6. Other

5. Years of employment at your organisation:
 1. 0 – 5 years
 2. 6 – 10 years
 3. 11 – 15 years
 4. 16 – 20 years
 5. 21 or more years

6. Current position held in your organisation:
 1. Teaching Staff
 2. Administration Staff
 3. Management Staff
 4. Executive Staff
 5. Other

7. The size of your organisation:

1. 1 – 49 employees
2. 50 – 99 employees
3. 100 or more employees

8. The age of your organisation:

1. 0 – 9 years
2. 10 – 19 years
3. 20 or more years

SECTION A - Team Performance						
		Com- pletely dis- agree	Some- what dis- agree	Agree- able	Mostly agree	Com- pletely agree
		1	2	3	4	5
Team Innovation						
1	Our team continuously improves and develops our educational programme.					
2	Our team develops new ways to meet school, labour market and/or student demands.					
3	Our team develops new materials and methods.					
4	Our team knows how to constantly find improved ways to carry out teaching tasks.					
Team efficiency						
1	Our team works efficiently.					
2	Our team achieves its goals.					
3	Our team spends the available time well.					

Information processing						
1	In my team, team members give each other feedback.					
2	In my team, team members exchange knowledge and information.					
3	In my team, we challenge each other to look at our work in new ways.					
4	In my team, we develop a shared understanding about our work approach.					
5	In my team, we try to achieve a clear consensus.					
6	In my team, we carefully listen to each other's ideas about work.					
7	In my team, we consider whether there are better ways to deal with the work.					
8	In my team, where possible, we try to form standard procedures.					
9	In my team, professional information is disseminated to all team members.					

Bouwman, M., Runhaar, P., Wesselink, R., & Mulder, M. (2017). Stimulating teachers' team performance through team-oriented HR practices: the roles of affective team commitment and information processing. *The International Journal of Human Resource Management*, 1-23.

SECTION B - Self-leadership questions						
		Not at all accurate	Somewhat accurate	A little accurate	Mostly accurate	Completely accurate
		1	2	3	4	5
1	I set specific goals for my own performance (<i>self-goal setting</i>).					
2	I make a point of tracking how well I am doing at work (<i>self-observation</i>).					
3	I work towards the specific goals I have set for myself (<i>self-goal setting</i>).					
4	I visualise myself successfully performing a task before I do it (<i>visualising successful performance</i>).					
5	When I have successfully completed a task, I often reward myself with something I like (<i>self-reward</i>).					
6	Sometimes I talk to myself (out aloud or in my head) when working through difficult situations (<i>evaluating beliefs and assumptions</i>).					
7	I try to mentally evaluate the accuracy of my own beliefs about situations I am having problems with (<i>self-talk</i>).					

8	I think about my own beliefs and assumptions whenever I encounter a difficult situation <i>(evaluating beliefs and assumptions).</i>					
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Houghton, J. D., Dawley, D., & DiLiello, T. C. (2012). The abbreviated self-leadership questionnaire (ASLQ): A more concise measure of self-leadership. *International Journal of Leadership Studies*, 7(2), 216-232.

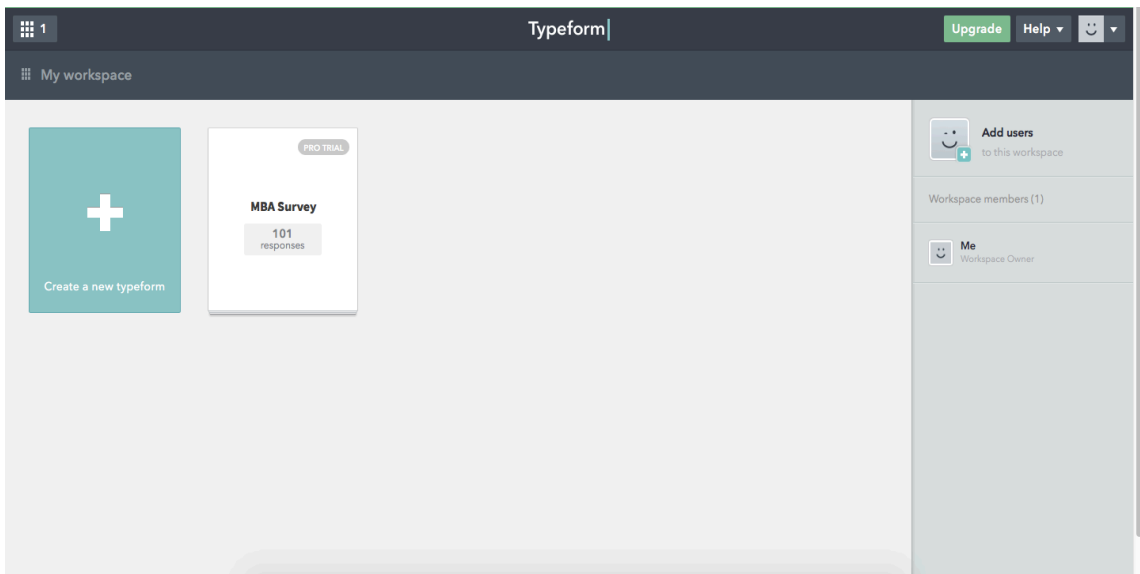
SECTION C - Shared leadership						
		Does not apply at all	Some-what applies	A little applicable	Mostly applies	Fully applies
		1	2	3	4	5
Task leadership orientation						
1	As a team, we clearly assign tasks.					
2	As a team, we clearly communicate our expectations.					
3	As a team, we provide each other with work relevant information.					
4	As a team, we ensure that everyone knows their tasks.					
5	As a team, we monitor goal achievement.					
Relation leadership orientation						
1	As a team, we take sufficient time to address each other's concerns.					
2	As a team, we recognise good performance.					

3	As a team, we promote team cohesion.					
4	As a team, we support each other in handling conflicts within the team.					
5	As a team, we never let each other down.					
Change leadership orientation						
1	As a team, we help each other to correctly understand ongoing processes in our team.					
2	As a team, we help each other to learn from past events.					
3	As a team, we help each other to correctly understand current company events.					
4	As a team, we can inspire each other for ideas.					
5	As a team, we support each other with the implementation of ideas.					
Micro political leadership orientation						
1	We use networks in order to support our team's work.					
2	We ensure that our team is supported with the necessary resources to fulfil the task.					
3	As a team, we assist each other to network.					
4	We establish contact with important experts valuable for our team.					

5	As a team, we are open to external assistance in the event of internal team problems.					
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Electronic questionnaire



2. Codebook

LABEL	ITEMS	CODING
DEMOGRAPHICS		
Age	Your age	20 – 30 years = 1 31 – 40 years = 2 41 – 50 years = 3 51 – 60 years = 4 61 – 70 years = 5
Gender	Your gender	Female = 1 Male = 2
Education	Your highest level of education	Matric = 1 Diploma = 2 Undergraduate degree = 3 Post graduate degree = 4
Race	Your race group	Asian = 1 Black = 2 Coloured = 3 Indian = 4 White = 5 Other = 6
Employment years	Years of employment at your current organisation	0-5 years = 1 6-10 years = 2 11-15 years = 3 16-20 years = 4 21 or more years = 5
Position	Current position held in your organisation	Teaching staff = 1 Administration staff = 2 Management staff = 3 Executive staff = 4 Other = 5
Size organisation	The size of your organisation	1-49 employees = 1 50-99 employees = 2 100 or more employees = 3

Age organisation	The age of your organisation	0-9 years = 1 1-19 years = 2 20 or more years = 3
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TEAM PERFORMANCE		
		Completely disagree = 1 Somewhat disagree = 2 Agreeable = 3 Mostly agree = 4 Completely agree = 5
TP1	Our team continuously improves and develops our educational programme.	
TP2	Our team develops new ways to meet school, labour market and/or student demands.	
TP3	Our team develops new ways to meet school, labour market and/or student demands.	
TP4	Our team knows how to constantly find improved ways to carry out teaching tasks.	
TP5	Our team works efficiently.	
TP6	Our team achieves its goals.	
TP7	Our team spends the available time well.	
TP8	In my team, team members give each other feedback.	
TP9	In my team, team members exchange knowledge and information.	
TP10	In my team, we challenge each other to look at our work in new ways.	

TP11	In my team, we develop a shared understanding about our work approach.	
TP12	In my team, we try to achieve a clear consensus.	
TP13	In my team, we carefully listen to each other's ideas about work.	
TP14	In my team, we consider whether there are better ways to deal with the work.	
TP15	In my team, where possible, we try to form standard procedures.	
TP16	In my team, professional information is disseminated to all team members.	

SELF-LEADERSHIP		
		Not accurate at all = 1 Somewhat accurate = 2 A little accurate = 3 Mostly accurate = 4 Completely accurate = 5
SL1	I set specific goals for my own performance (self-goal setting).	
SL2	I make a point of tracking how well I am doing at work (self-observation).	
SL3	I work towards the specific goals I have set for myself (self-goal setting).	
SL4	I visualise myself successfully performing a task before I do it (visualising successful performance).	
SL5	When I have successfully completed a task, I often reward	

	myself with something I like (self-reward).	
SL6	Sometimes I talk to myself (out aloud or in my head) when working through difficult situations (evaluating beliefs and assumptions).	
SL7	I try to mentally evaluate the accuracy of my own beliefs about situations I am having problems with (self-talk).	
SL8	I think about my own beliefs and assumptions whenever I encounter a difficult situation (evaluating beliefs and assumptions).	

SHARED LEADERSHIP		
		Does not apply at all = 1 Somewhat applies = 2 A little applicable = 3 Mostly applies = 4 Fully applies = 5
SHL1	As a team, we clearly assign tasks.	
SHL2	As a team, we clearly communicate our expectations.	
SHL3	As a team, we provide each other with work relevant information.	
SHL4	As a team, we ensure that everyone knows their tasks.	
SHL5	As a team, we monitor goal achievement.	
SHL6	As a team, we take sufficient time to address each other's concerns.	
SHL7	As a team, we recognise good performance.	

SHL8	As a team, we promote team cohesion.	
SHL9	As a team, we support each other in handling conflicts within the team.	
SHL10	As a team, we never let each other down.	
SHL11	As a team, we help each other to correctly understand ongoing processes in our team.	
SHL12	As a team, we help each other to learn from past events.	
SHL13	As a team, we help each other to correctly understand current company events.	
SHL14	As a team, we can inspire each other for ideas.	
SHL15	As a team, we support each other with the implementation of ideas.	
SHL16	We use networks in order to support our team's work.	
SHL17	We ensure that our team is supported with the necessary resources to fulfil the task.	
SHL18	As a team, we assist each other to network.	
SHL19	We establish contact with important experts' valuable for our team.	
SHL20	As a team, we are open to external assistance in the event of internal team problems.	

3. Consistency matrix

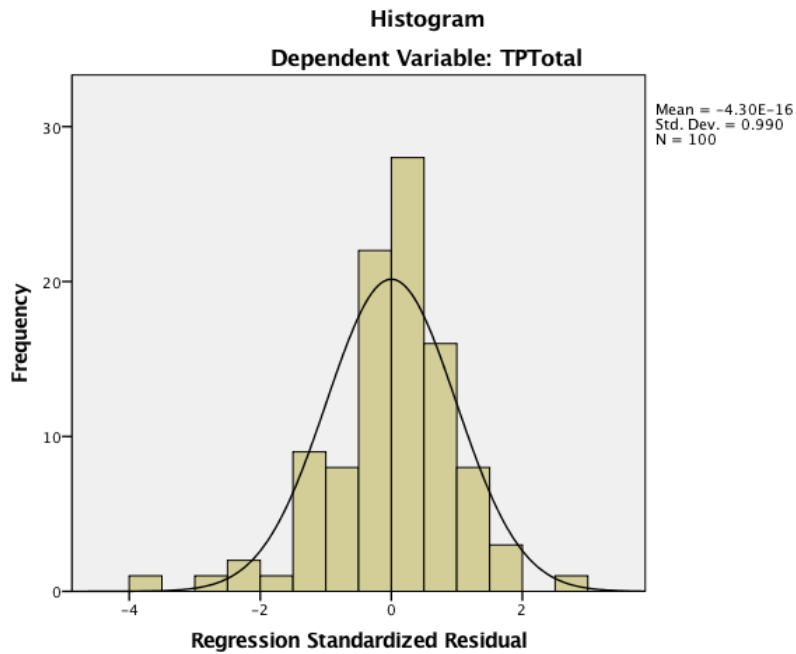
The relationship between self-leadership and shared leadership on team performance.

HYPOTHESIS	LITERATURE REVIEW	DATA COLLECTION TOOL	ANALYSIS
<p>H1 There is a positive relationship that exists between team performance and self-leadership.</p>	<p>Team performance Bouwmans et al. (2017) Boies et al. (2015) Liao and Long (2016) Sanders and Linderman (2014) Van Woerkom and Van Engen (2009) Van Woerkom and Croon (2009)</p> <p>Self-leadership Manz et al. (2016) Manz (2015) Hauschildt and Konradt (2012) Houghton et al. (2012) Mahembe et al. (2013) Nel and Van Zyl (2015) Politis (2015) Stewart et al. (2011) Neck and Manz (2010) Neck and Houghton (2006)</p>	<p>Electronic survey questionnaire – Typeform™</p> <p>Team performance HRM Research instrument. Bouwmans et al. (2017)</p> <p>Self-leadership ASLQ. Houghton et al. (2012)</p>	<p>Statistical analysis</p> <ul style="list-style-type: none"> • Reliability • Validity • Correlation • Multiple regression <p>Content analysis</p> <ul style="list-style-type: none"> • Tables • Graphs • Descriptions • Results • Interpretation of results • Conclusion

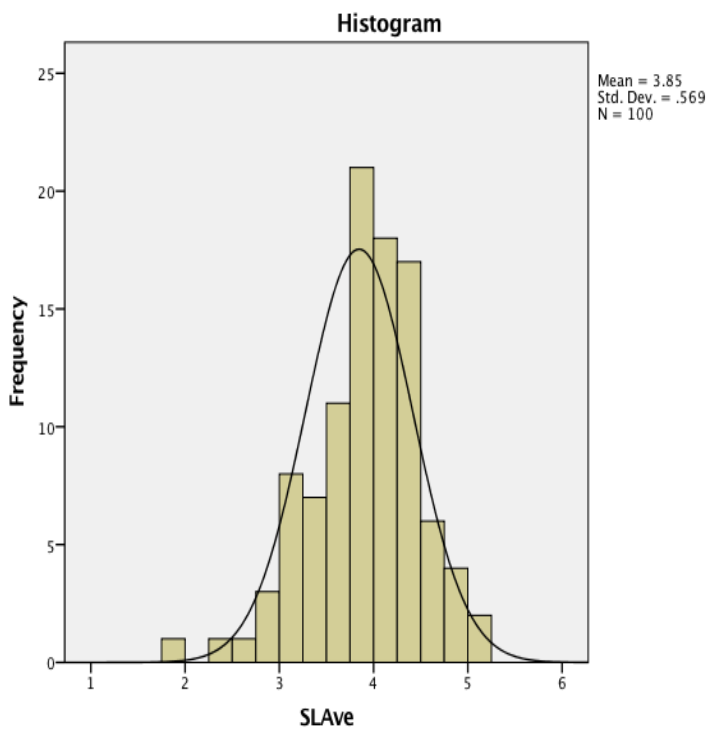
HYPOTHESIS	LITERATURE REVIEW	DATA COLLECTION TOOL	ANALYSIS
<p>H2 There is a positive relationship that exists between team performance and shared leadership.</p>	<p>Team performance Bouwmans et al. (2017) Boies et al. (2015) Liao and Long (2016) Sanders and Linderman (2014) Van Woerkom and Van Engen (2009) Van Woerkom and Croon (2009)</p> <p>Shared leadership Barnett and Weidenfeller (2016) Chui, et al. (2016) D’Innocenzo, et al. (2016) Grille and Kauffeld (2015) Nicolaidis et al. (2014) Pearce, et al. (2009) Pearce, et al. (2014)</p>	<p>Electronic survey questionnaire – Typeform™</p> <p>Team performance HRM Research instrument. Bouwmans et al. (2017)</p> <p>Shared leadership SPLIT. Grille and Kauffeld (2015)</p>	<p>Statistical analysis</p> <ul style="list-style-type: none"> • Reliability • Validity • Correlation • Multiple regression <p>Content analysis</p> <ul style="list-style-type: none"> • Tables • Graphs • Descriptions • Results • Interpretation of results • Conclusion

4. Output analysis

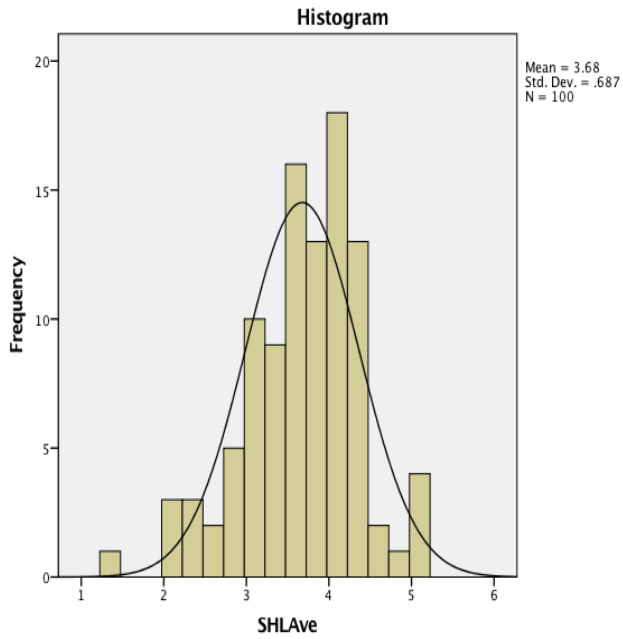
Histogram – team performance



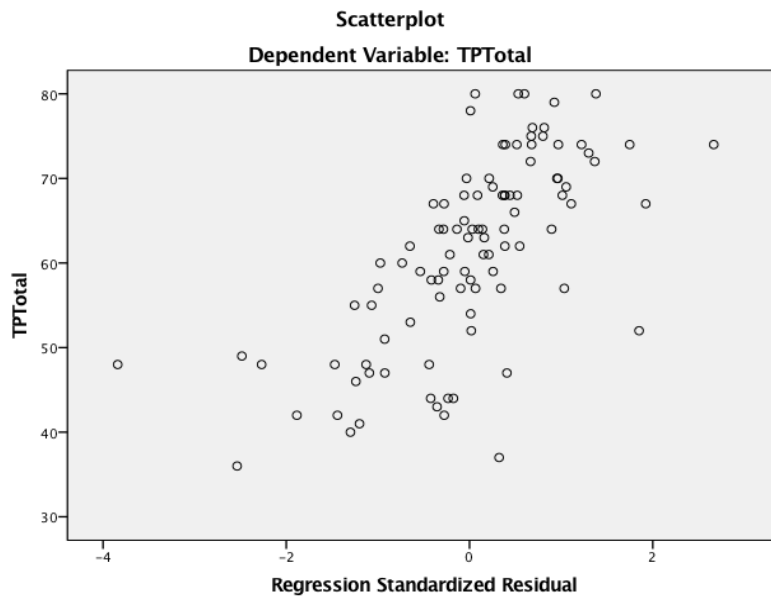
Histogram – Self-leadership



Histogram – shared leadership



Scatterplot – team performance



5. Ethical clearance approval

**Gordon
Institute
of Business
Science**
University
of Pretoria

07 September 2017

Ingrid Trusler

Dear Ingrid,

Please be advised that your application for Ethical Clearance has been approved.

You are therefore allowed to continue collecting your data.

We wish you everything of the best for the rest of the project.

Kind Regards

GIBS MBA Research Ethical Clearance Committee