Neethling’s thinking style preferences instrument to enhance team performance in an organisation in South Africa

by

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DECLARATION

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Neethling’s thinking style preferences instrument to enhance team performance in an organisation in South Africa

I declare that the above dissertation/thesis is my own work and that all the sources that I have used or quoted have been indicated and acknowledged by means of complete references.

15 JUNE 2017

SIGNATURE DATE
ABSTRACT

Teams play a key role in organisational success and it is imperative to proactively manage team performance needs in order to influence team effectiveness. The purpose of this study was to explore the perceptions of a group of employees in a sales-driven organisation on how the application of Neethling’s thinking style preferences influenced team performance following their participation in Neethling’s thinking style preferences training.

The qualitative exploratory study was conducted with 19 employees in the Finance and Insurance department of a sales-driven organisation. The data were collected by means of in-depth individual interviews and focus group interviews. A nonprobability purposive sample technique was used to identify participants for the two focus group interviews and six individual interviews.

Evidence provided in the findings concluded that Neethling's thinking style preferences can be used as a viable tool to enhance team performance in an organisation as the participants’ perceptions and experiences of the advantages of these preferences and the findings in the literature on effective teams, concurred. There were also strong indications that the team performed better in terms of their internal team processes, leading to team outputs such as better communication, cooperation, understanding and relationships between team members. Participants also recognised that the team’s performance led to the achievement of organisational results or outcome goals such as improved productivity, profitability, organisational image and customer satisfaction.

The study represents original research, extending the current body of knowledge on the perceptions of employees' team performance related to Neethling’s thinking style preferences. Neethling’s thinking style preferences could have a high influence on identified elements of team performance and could be viewed by employees as a viable tool for enhancing team performance.

**KEY TERMS:** Groups, Neethling’s thinking style preferences, teams, team performance, team effectiveness.
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Thank you to Dr. Kobus Neethling. I have never met you but your work inspired me to investigate the value thereof on team performance.

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I thank all participants participating in my research for their valuable input during their busy schedules.
LIST OF ACRONYMS

CQI – Continuous Quality Improvement
F&I – Finance and Insurance
GRPI – Goals, Roles, Processes and Interpersonal relationships
HRM – Human Resource Management
IPO – Input-Process-Output
MBTI – Myers-Briggs Type Indicator
NTSP – Neethling’s Thinking Style Preferences
TMM – Team Mental Models
TQM – Total Quality Management
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CHAPTER 1

RESEARCH CONTEXT AND RATIONALE

1.1 INTRODUCTION

There is no doubt that the changes taking place in society today, with respect to values, work ethics, authority and leisure time, have had an immense impact on how work is performed within organisations (Earley, Soon, & Joo-Seng, 2005; Parker, 2008). For organisations to achieve their goals, they must continuously look for better ways to organise and manage their work (Lei & Slocum, 2005). Gaining a competitive advantage today is one of the major strategies followed by profit-making organisations. Levi (2014, p.10) states the following in this regard: “[b]usinesses are aware that they need to reduce costs, improve quality, reduce the time spent on creating new products, improve customer service and increase their adaptability to an increasingly competitive environment”. To realise this goal, organisations need to adopt an all-inclusive management style, obtaining the involvement and commitment of staff within the organisation, and utilising resources, including employee talent to achieve the organisation's goals (Mongaliso, 2001). Elements that have a significant impact on organisational effectiveness are employee involvement and management practices. It has become increasingly evident that team members in cohesive teams are dedicated to their organisations and teams (Arriaga & Agnew, 2001; Branzei & Thornhill, 2006; Forsyth, 2010; Johnson & Johnson, 2006).

As indicated above, one critical component in the competitive advantage equation is the workforce. Managing and leading the workforce, however, is a complex task, as each employee brings to the company a certain uniqueness which needs to be harnessed to achieve its goals (Ashton & Morton, 2005; Lockwood, 2006; McCauley & Wakefield, 2006). Since the early 1950s, significant research has been conducted on how to build a strong and effectual workforce (Grobler, Bothma, Brewster, Carey, Holland & Wärnich, 2012). Factors such as the motivation of employees have received focused attention (Fullen, 2008; Gottschalg & Zollo, 2007; Grobler et al., 2012; Nelson & Quick, 2006). Another element that also received attention is the
decentralisation of decision making and the resultant empowerment of employees to make their own decisions (Grobler et al., 2012; Levi, 2014; Pearce & Manz, 2005). Building on these developments during the 1960s, the “team” concept started appearing (Helper, Kleiner, & Wang, 2010; Ilgen, Hollenbeck, Johnson, & Jundt, 2005; Parker, 2008). Hence there was a movement away from the individual employee’s contribution to teams.

According to Katzenbach and Smith (2003, pp. 111–120), the team concept can be defined as follows: “A team can be defined as a small number of people with complementary skills who are committed to a common purpose, performance goals, and approach for which they are mutually accountable.” Nedelko (2008) posits that numerous benefits can be derived from establishing highly effective teams. These include the following: Increasing resources for problem solving; fostering creativity and innovation; enhanced commitment to tasks; improved quality of decision-making processes and decisions made; satisfaction of team members; and increased motivation and morale among employees in the organisation. Added benefits of using teams include improved cooperation, better decision making, improved sharing of information and the success rate of teams when faced with complex problems. In most instances, teams are better than the individuals they are comprised of (Rudansky-Kloppers & Strydom, 2015). Deficiencies in organisational training systems can be overcome when mutual collaboration and support between team members exist in obtaining and improving job competencies (Schermherhorn, Osborn, Uhl-Bien, & Hunt, 2012).

However, building dynamic and highly motivated teams in the workplace is a complex and challenging task. Many new techniques to achieve this goal have appeared since the advent of teams, but numerous challenges still remain. In this study, the researcher explores the perceptions of employees’ team performance related to Neethling thinking style preferences in a sales-driven organisation. It is anticipated that the application of Neethling’s thinking style preferences could have an impact on team performance, either positive or negative. Since there has been no research on Neethling’s thinking style preferences related to team performance, this research could broaden the knowledge base and add significant academic value to
the field of Human Resource Management (HRM) and more specifically team performance. This study is therefore of relevance to the field.

1.2 BACKGROUND

1.2.1 World Competitiveness Report


In the report, South Africa was described as having an effective goods and services market (38th), as performing satisfactorily in multifaceted areas such as business sophistication (33rd), and the country moved up five places (to 38th) for innovation, launching its economy as the region’s most innovative. The qualities that make South Africa a competitive economy in the region is the advancement of innovative collaboration between scientific research institutions (33th), and universities and the business sector (32th). However, according to this report, South Africa needs to address certain weaknesses in order to further enhance its competitiveness. It ranks 138th with regard to HR management practices (hiring and firing), 107th in labour market efficiency (a drop of 6 places from 2016, 137th for rigid wage determination by organisations and 140th for substantial pressures in labour relations. For South Africa to better its innovation potential and create the necessary skills required for a competitive economy, strategies to increase university enrolment need to be implemented (The Global Competitiveness Report, 2015–2016).

With regard to the 12 pillars of competitiveness, some key issues need to be highlighted in relation to South Africa’s competitiveness (see table 1.1 below).
Table 1.1  
**Key Issues of South Africa’s Competitiveness Related to the 12 Pillars of Competitiveness**

<table>
<thead>
<tr>
<th>Pillar</th>
<th>Description (Pillar)</th>
<th>Ranking</th>
</tr>
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<tbody>
<tr>
<td>6th - 6.01: Intensity of local competition</td>
<td>For vibrant domestic and foreign market competition, market efficiency and business productivity need to be improved to ensure that the most experienced organisations manufacturing market-demanded goods prosper. Competitive advantage can be created if organisations become more customer need driven, innovative and disciplined to achieve efficiency in the market.</td>
<td>43 out of 140 with a value of 5.4 out of 7</td>
</tr>
<tr>
<td>7th – 7.01: Cooperation in labour-employer relations</td>
<td>Utilising workers most effectively and providing performance incentives promote efficiency and flexibility in the labour market. Labour markets must thus be less rigid and be able to reallocate workers quickly and cost effectively from one economic activity to another, allowing for less social disruption through varying wage options.</td>
<td>South Africa ranked 140 out of 140 with a value of 2.5 out of 7.</td>
</tr>
<tr>
<td>7th – 7.06: Pay and productivity</td>
<td></td>
<td>South Africa ranked 127 out of 140 with a value of 3.2 out of 7.</td>
</tr>
<tr>
<td>11th – 11.04: Nature of competitive advantage</td>
<td>Sophisticated business practices lead to higher efficiency in the production of outputs. Comprehensive business networks and the quality of business operations and strategies of individual firms are vital in this regard.</td>
<td>South Africa ranked 70 out of 140 with a value of 3.4 out of 7.</td>
</tr>
<tr>
<td>11th – 11.07: Production process sophistication</td>
<td></td>
<td>South Africa ranked 39 out of 140 with a value of 4.4 out of 7.</td>
</tr>
<tr>
<td>11th – 11.08: Extent of marketing</td>
<td></td>
<td>South Africa ranked 24 out of 140 with a value of 5.1 out of 7</td>
</tr>
<tr>
<td>11th – 11.09: Willingness to delegate authority</td>
<td></td>
<td>South Africa ranked 26 out of 140 with a value of 4.5 out of 7.</td>
</tr>
<tr>
<td>12th – 12.01: Capacity for innovation</td>
<td>Innovative technological breakthroughs lead to productivity improvements experienced by the economy. To stay competitive and offer high value outputs, cutting-edge products and processes must be designed and developed by organisations that have reached the innovation phase of development.</td>
<td>South Africa ranked 32 out of 140 with a value of 4.6 out of 7.</td>
</tr>
</tbody>
</table>

**Source:** Adapted from The Global Competitiveness Report (2015–2016)
From the above table, it is evident that major challenges exist in South Africa in the area of the labour force and its management.

1.2.2 Importance of teams

Utilising teams to improve the success of organisations, and to benefit from the use of teams and teamwork, it is essential for them to clearly understand the meaning of team effectiveness (Hackman, 2002; Irving & Longbotham, 2007; Piccoli, Powell, & Ives, 2004; Pina, Martinez, & Martinez, 2008; Ross, Jones, & Adams, 2008). It is therefore imperative to note the three criteria of effective teams, namely task performance, member satisfaction and team viability (Coetzer & Bushe, 2006; Fiske, Gilbert, & Lindzey, 2010). For task performance, quantity, quality and time efficiency are achieved by effective teams. For member satisfaction, members of an effective team are content with their team tasks, team accomplishments and interpersonal relationships. They also believe that their involvement, contributions, and positive experiences satisfy important personal needs. For team viability, team members in effective teams are content to keep working well together in the team (Schermherhorn et al., 2012).

However, putting successful teams together to achieve team effectiveness is challenging. The literature indicates the following issues, which over the years, have been deemed problematic when it comes to teams. Some of the critical challenges or problems that teams face are as follows:

- Teams do not always perform well and not all team members are constantly satisfied (Fiske et al., 2010).
- A need to clearly understand team learning processes and knowledge outcomes, for example, mental models and transactive memory, exists (Bell, Kozlowski, & Blawath, 2012; Rudanskry-Kloppers & Strydom, 2015).
- Differences in work styles and personality conflicts that incite some members and disrupt relationships and accomplishments (Schermherhorn et al., 2012).
• A lack of support systems, coordination and cooperation, and poor communication, interpersonal relationships and listening exists (Rudansky-Kloppers & Strydom, 2015; Schermerhorn et al., 2012).

• Little knowledge exists of team behaviour. Team members do not understand themselves, and there is a lack of understanding of teamwork processes and an inability to manage diversity (Cameron & Green, 2012).

• A lack of participation in future planning, insufficient information sharing and unclear priorities exists (Golosinski, 2005; Lencioni, 2005).

• Inadequate discussion of differences, a lack of focus on common goals, a reluctance to shift paradigms and adapt, and internal competition (Forsyth, 2010; Rudansky-Kloppers & Strydom, 2015; Stander & Rothmann, 2009).

Apart from the above critical problems and challenges that teams face, there are also other underlying aspects of organisations in the design of teams that play a significant role. These include, inter alia, team resources and setting, the nature of the team task, team size, membership composition, team performance and team processes (Schermerhorn et al., 2012; Weiner, 2012). Promoting teamwork requires building a true culture of teamwork. An organisation that commits to the virtues of teamwork, but does nothing to ensure teamwork as part of the employee work paradigm, cannot be surprised when its teams fail (Shore, Coyle-Shapiro, & Tetrick, 2012).

### 1.2.3 Neethling’s thinking style preferences

In exploring perceptions of employees’ team performance related to Neethling’s thinking style preferences, it is important to discuss the essence of these thinking style preferences. Neethling (2005) divided each of the four brain quadrants into two dimensions per quadrant, which ultimately resulted in an eight-dimensional brain profile, as follows: The L1 quadrant: the realist and the analyst; the L2 quadrant: the stalwart and the organiser; the R2 quadrant: the socialiser and empathiser; and the R1 quadrant: the strategist and the imagineer.
The following figure reflects the four quadrants, their sub-divisions, and descriptions of thinking preferences.

**Figure 1.1: Four Quadrants, Sub-Divisions and Descriptions**

The actions of individuals are determined by which brain quadrant is dominant. That is why thinking, learning, communication and decision-making preferences differ among people. Whole brain thinking means being able to fully control one’s own preferences, move to other quadrants when necessary, and adapt to and take advantage of the preferences of those around you to improve performance and results (Herrmann & Herrmann-Nehdi, 2015).

Whole brain thinking has the following advantages, inter alia (Herrmann & Herrmann-Nehdi, 2015; Neethling, 2005):

- It allows people to understand their thinking preferences, which assist them in optimising their ability and adapting their thinking.
• It improves the style of their communication and decision making to any given situation.
• It clarifies why communication with certain people seems easier than with others.
• It reveals what people learn best and focuses their attention on what motivates them.

These advantages could influence the way team members operate in a work team (Neethling, 2005).

In light of the above, it is evident that teams play a crucial role and can assist with the problems and challenges facing South African organisations. Any attempt to improve teamwork through new approaches, such as Neethling’s thinking style preferences, could add value to team performance and ultimately organisational success. Although studies were found on personality and mental model constructs such as the Myers-Briggs Type Indicator (Quenk, 2009), no research on the exploration of how the application of Neethling’s thinking style preferences influences team performance in a sales-driven organisation could be found in South Africa. This study should therefore make a significant contribution to the field of HRM and more specifically team performance.

1.3 PROBLEM STATEMENT

Major challenges exist in South Africa in the area of the labour force and its management. The importance of teams in organisations to assist with the above challenges cannot be underestimated. Teams play a vital role and are found everywhere, and they are key to all activities in modern organisational life (Helper et al., 2010; Ilgen et al., 2005; Levi, 2015; Parker, 2008).

For organisations to adapt to the demands of change, new roles that are being created tend to be team-oriented (De Meuse, 2009). Work teams as a driver for realising vision, mission and goals, are increasingly being relied upon by both public and private entities (Salas, DiazGranados, Klein, Burke, Stagl, Goodwin & Halpin, 2008). Because teams play a key role in organisational success, it is imperative to
proactively manage team performance needs in order to influence team effectiveness (Chen, Kirkman, Kanfer, Allen, & Rosen, 2007; Eisenbeiss, Van Knippenberg, & Boerner, 2008; Levi, 2015; Morgeson, DeRue, & Karam, 2010; Schaubroeck, Lam, & Cha, 2007; Transcritti, 2010).

Organisations also find it challenging to implement effective team training efforts (Salas, Shuffler, Thayer, Bedwell & Lazzara, 2015). Fostering teamwork, supporting teams and incentivising team performance tend to be of diminished usefulness when the teams themselves do not know how to participate in teamwork (Shore et al., 2012). As yet, little is known about the interaction between teams and how individual personality and team-level characteristics interact to influence team member behaviour (Barrick, Stewart, Neubert, & Mount, 1998; Bell, 2007; Stewart, Fulmer, & Barrick, 2005). Hence, the aim of this study is to explore employees’ perceptions of team performance related to Neethling’s thinking style preferences in a sales-driven organisation in South Africa. Team-working forms are expanding dramatically as organisations become more team driven (Richter, Dawson, & West, 2011). No matter the industry, effective teamwork is critical for organisational success (Parker, 2008), and this also in South Africa.

1.4 AIM OF THE RESEARCH

The aim of this research study is to explore employees’ perceptions of team performance related to Neethling’s thinking style preferences in a sales-driven organisation in South Africa. What is significant about whole brain thinking in business is that when organisations put it into action, it potentially optimises organisational performance. If this is true for organisations, it could be argued that Neethling’s thinking style preferences could be just as beneficial for working teams in organisations, which corresponds with the focus of this research.

When designing the ideal job for individuals in organisations, taking into account their thinking style preferences enables the selection of not only the job that they can do (from a competence point of view), but also the job that they prefer doing (what their brains prefer) (Neethling, 2005). The application of whole brain thinking in leadership, management and other organisational challenges relating to teams,
employees and organisational strategies, is essential. The ultimate achievement of business outcomes is enhanced by using the whole brain methodology in that management and employees are able to better align their actions with the business outcomes they envision (Neethling, 2005). Understanding team members’ thinking style preferences can give a creative perspective on members, the leader/supervisor and others with whom the team interacts on a daily basis.

1.5 SCOPE OF THE STUDY

In this study, the researcher selected participants working in a sales-driven organisation who had received 3 or more training sessions in Neethling’s thinking style preferences for a valid sample. About 50 managers and 150 employees have undergone several training sessions in the Neethling’s whole brain instruments in the organisation since 2010. The participants chosen for this study consisted of regional managers and employees working in the Motor Retail Finance and Insurance Department.

By conducting in-depth interviews with regional managers and using focus group interviews with employees (non-managers), the researcher was able to gather all the necessary information. All the information and knowledge gathered were compared with the literature (chapters 2, 3 and 4).

1.6 RESEARCH QUESTION

The research question is as follows: What are the perceptions of employees on team performance in relation to Neethling’s thinking style preferences in an organisation in South Africa?

1.7 RESEARCH OBJECTIVE

The objective of the research is to explore the perceptions of a group of employees in a sales-driven organisation on how the application of Neethling’s thinking style preferences influence team performance following their participation in training in these thinking style preferences.
1.8 SUMMARY OF THE RESEARCH PROCESS

The research methodology used in this study is aimed at exploring perceptions of employees’ team performance related to Neethling’s thinking style preferences in a sales-driven organisation in South Africa. The study was conducted using a qualitative approach making use of in-depth individual interviews with regional managers, and focus group interviews with employees working in the same organisation.

The research was conducted in four phases, as shown in table 1.2.

Table 1.2
Research Phases in this Study

<table>
<thead>
<tr>
<th>PHASE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>The researcher performed a theoretical analysis and exploration of the literature to gain insight into the concept under study.</td>
</tr>
<tr>
<td>2</td>
<td>The questions asked in the in-depth interviews and focus group sessions were developed.</td>
</tr>
<tr>
<td>3</td>
<td>The in-depth interviews and focus group interviews were conducted, and the data were captured and analysed.</td>
</tr>
<tr>
<td>4</td>
<td>The findings were reported and recommendations made for implementation by organisations wishing to improve the performance of organisational teams.</td>
</tr>
</tbody>
</table>

1.9 ASSUMPTIONS

Assumptions refer to straightforward statements that are believed to be true, but have not yet been verified (Babbie, 2008; Mouton, 1996; Polit & Hungler, 1993). The following assumptions are discussed in this section:

- epistemological assumptions
- ontological assumptions
- methodological
1.9.1 Epistemological assumptions

Epistemological assumptions refer to the interpretations of how the reality that is being studied is understood (Grix, 2002; Maree, Creswell, Ebersöhn, Eloff, Ferreira, Ivankova, Jansen, Nieuwenhuis, Pietersen, Plano Clark & Van der Westhuizen, 2012; Morhouse & Richards, 2012). There are several ways to distinguish something and the “truth” is subjective, depending on the situation. Epistemological assumptions assist researchers to explore and demonstrate theories and knowledge (Babbie, 2008; Guba & Lincoln, 1994; Mouton, 1996).

The epistemological assumption of this study was to interpret perceptions of employees’ team performance related to Neethling’s thinking style preferences in a sales-driven organisation in South Africa. This was achieved by means of the theory of knowledge and individual and focus group interviews to create an in-depth understanding with regard to employee perceptions, experiences and views. The researcher believed that she would only be able to understand perceptions of employees’ team performance related to Neethling’s thinking style preferences if she was able to appreciate how participants actually experienced and comprehended these experiences.

1.9.2 Ontological assumptions

Ontological assumptions are an interpretation about the nature of reality of the research (Brink, Van der Walt, & Van Rensburg 2006; Mouton, 1996). Individuals’ experiences and their culture impact on behaviour. Research always studies something that can be recognised as a truth or reality (Babbie, 2008; Baptiste, 2001; Höijer, 2008; Mouton, 1996).

The researcher is responsible for the continuous construction of reality, but for the purposes of this study, the researcher believed that reality exists independently of employees’ understanding of it. The researcher was also of the opinion that perceptions of employees’ team performance related to Neethling’s thinking style preferences could be used to improve team performance in the workplace. The ontological assumptions in this study were the belief that the employees in the
Finance and Insurance department in a sales-driven organisation would have certain experiences and challenges relating to Neethling's thinking style preferences, which would impact on their team’s performance.

1.9.3 Methodological assumptions

Methodological assumptions comprise the most appropriate method to be used in research (Babbie, 2008; Mouton, 1996). In this study, the following was assumed regarding the methodological assumptions:

- This topic had not been previously studied and was therefore an exploratory design, suitable for this study.
- Participants’ perceptions and life experiences could be studied by means of communication with them and by observing them.
- Interviews could be used to collect information on the participants’ viewpoints.

In this study, in order to obtain a valid sample, the researcher selected participants who had received training in Neethling’s thinking style preferences, working in the finance and insurance department of a sales-driven organisation. All the necessary information was gathered by the researcher by means of interviews. All the information and knowledge gathered were compared to the views of authors in the literature review chapters (chapters 2, 3 and 4).

1.10 DEFINITION OF KEY TERMS

Relevant terms for this study include the following:

Group: A group can be defined as two or more employees who have a relationship or interdependence and whose actions influence one another (Levi, 2011; Paulus, 2000).

Neethling’s thinking style preferences: Neethling’s whole brain, eight-dimensional profile identifies the thinking preferences of the individual. Obtaining insight into the way people prefer to think facilitates awareness of and sensitivity to the preferences
of others. The way people communicate, make decisions, solve problems, and their management styles are all influenced by personal thinking preferences (Neethling, 2005).

**Team performance:** Team effectiveness can be defined as the achievement of shared objectives or goals through the coordination of team members’ activities (Irving & Longbotham, 2007). Guzzo and Dickson (1996, p. 309), maintain that team effectiveness is indicated by “group produced outputs like quality, speed and customer satisfaction; the consequences a group has for its members; or the enhancement of a team’s capability to perform effectively in future”.

**Team:** A team can be defined as a collection of employees gathered together to attain the same goal (Armstrong, 2007). Clutterbuck (2007) and Katzenbach and Smith (2003) define a team as a small group of individuals having complementary competences, committed to a specific aim, performing objectives and having a procedure for holding themselves equally accountable. Hackman (1987) defines a team as groups that work together in an organisation towards a common goal.

### 1.11 POTENTIAL CONTRIBUTION OF THE STUDY

The study represents original research and will hopefully contribute the following:

- New knowledge should be added the HRM field and team performance in particular.
- New knowledge should be added to the HRM field with regard to the application of Neethling’s thinking style preferences.
- Should the outcome of this research suggest a positive influence, it could offer other organisations an alternative tool to improve team performance.

Since no research on Neethling’s thinking style preferences related to team performance has been conducted, this study could broaden the knowledge base and add substantial academic value to the research field.
1.12 THESIS STATEMENT

Neethling’s thinking style preferences have a significant influence on identified elements of team performance and are viewed by employees as a viable tool for enhancing team performance.

1.13 CHAPTER OUTLINE

This research report consists of the following sections:

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>CHAPTER TITLE</th>
<th>CONTENT OVERVIEW</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 1</td>
<td>Research context and rationale</td>
<td>Addresses issues such as the statement of the research problem, aim of the research, scope of the study, research methodology and the outline of the research report.</td>
</tr>
<tr>
<td>Chapter 2</td>
<td>Literature review: Theoretical overview of teams in organisations</td>
<td>Discusses the definition of teams and team effectiveness, the identification of the different types of teams, the advantages and disadvantages of teams</td>
</tr>
<tr>
<td>Chapter 3</td>
<td>Literature review: Theoretical overview of team effectiveness</td>
<td>Focuses on the definition of team effectiveness and different team effectiveness models</td>
</tr>
<tr>
<td>Chapter 4</td>
<td>Literature review: Roles of individuals in teams</td>
<td>Discusses individuals in teams, the role that team members’ personality and preferences play in team composition and development, and thinking style preferences.</td>
</tr>
<tr>
<td>Chapter 5</td>
<td>Research methodology</td>
<td>Discusses the research methodology and includes issues such as, the design, population, sample, data collection and analysis, ethical considerations and measures to ensure trustworthiness</td>
</tr>
<tr>
<td>Chapter 6</td>
<td>Characteristics of the sample</td>
<td>The characteristics of the sample are discussed.</td>
</tr>
<tr>
<td>Chapter 7</td>
<td>Findings and discussion</td>
<td>Deals with the data results and discussion of the data. This includes the data presentation and comments and responses of the participants are outlined.</td>
</tr>
<tr>
<td>Chapter 8</td>
<td>Conclusion, limitations and recommendations</td>
<td>Includes answers to the research question, findings and implications, limitations of the study and suggestions for further research are highlighted.</td>
</tr>
</tbody>
</table>
1.14 CONCLUSION

In this chapter, the background to the problem and motivation for the research were discussed. The problem statement was identified, research objectives and questions were formulated, the disciplinary context was explained and assumptions about science and research were made and discussed. The potential contribution of the study was explained, the thesis statement was given, the definitions of key terms were explained and the phases in the research briefly outlined (table 1.2). In the next chapter, the theoretical overview of teams in organisations is discussed.
CHAPTER 2

THEORETICAL OVERVIEW OF TEAMS IN ORGANISATIONS

2.1 INTRODUCTION

Business and society are currently experiencing increasingly rapid changes, which have compelled organisations to change the way they operate (Earley et al., 2005; Levi, 2015; Parker 2007). In order for organisations to achieve their goals, they must continuously look for improved ways in which to organise and manage their work (Lei & Slocum, 2005). According to Robbins (2004), future organisations will rely on teams, and not jobs, as a key foundation. This view is shared by Banker, Lee, Potter, and Srinivasan (1996), who argue that team work improves organisational performance dramatically in various industries. Helper et al., (2010) indicate that teams are vital when the following conditions exist:

- Product development or service provision is the goal.
- The job is multifaceted.
- Customer-service provision and achievement of quality is prioritised.
- Rapid change is required.

Teams therefore play a key role in modern organisations. In light of this, this chapter focuses on a brief history of teams, a definition of a team, different types of teams, their advantages and disadvantages, the role of interpersonal behaviour in teams and the difference between groups and teams.

2.2 A BRIEF HISTORY OF TEAMS

Although teams, and teamwork, have been around for centuries, the past is not always a good predictor of the future. Lessons should be learnt from history because it holds an abundance of past knowledge that is still relevant and applicable today. This also applies to knowledge about teams. In this section, a brief overview is
provided of the development of the team concept in business over a number of periods, that is, prior to 1950, 1950 to 1959, 1960 to 1969, 1970 to 1999, and the period after 2000.

2.2.1 The period prior to 1950

The research on and application of team effectiveness has a rich history (Dyer, 1984; Nielsen, 2007). In modern times, the Hawthorne studies conducted in the 1920s and 1930s by Elton Mayo at General Electric in the USA led to an increase in book chapters and research articles relating to teams. A series of projects included in the Hawthorne Studies represent one of the first scientific investigations of factors related to team effectiveness (Dyer, 1984; Nielsen, 2007; Roethlisberger & Dickson, 1939).

The employee in the so-called “Bank Wiring Observation Room” resulted in some of the most significant outcomes from the Hawthorne studies (Homans, 1950). Sundstrom, McIntyre, Halfhill, and Richards (2000) examined methods for studying groups in work settings and also found evidence on the development of informal groups among workers and of mutual relevance of formal and informal social structures. These authors also examined the informal production norms of work groups, and perhaps most interestingly, found a clear example of a work group enforcing a production norm that reflects some of the legacies left by the original research.

Between the years 1927 and 1932, a series of further experiments uncovered the informal organisation. This entailed observing group members’ shared attitudes and reactions to management, resulting in a transformed work output (Mayo, 1933; Roethlisberger & Dickson, 1939). By today’s standards, the groups the researchers studied might not have been called work teams, but it was the first focus within a work environment that highlighted the importance of the group.

2.2.2 The period between 1950 and 1959

After the Hawthorne Studies, the most interest in work teams was expressed by researchers and not managers, thereby resulting in an increase in research relating
to work teams, with little practical application of the team concept in the work environment.

For example, Bales (1950a, b) developed a technique for analysing group behaviour after studying role differentiation in a range of problem-solving groups (Bales & Strodtbeck, 1951). They also established that group decision-making processes manifest in specific phases. Festinger, Schachter, and Back (1950), Asch (1951) and Festinger (1954) continued research on how individuals were influenced to adjust to group standards, expectations and the idea of cohesion and the pressure or desire to remain part of the team. In 1959, Thibaut and Kelley’s book, *The social psychology of groups*, provided a consolidated information resource pertaining to member relations, including the setting of goals.

Early research involving work teams was mainly performed by psychologists. They studied, for example, automobile factory workers (Walker & Guest, 1952), B26 flight crews (Torrence, 1954) and industrial work groups (Seashore, 1954). Between 1950 and 1959, a wealth of studies (over 2 000) were published on small groups (McGrath & Altman, 1966).

In spite of a substantial amount of research conducted throughout the 1950s, the application of teams in organisations only became popular by the 1980s. From the early 1950s a substantial amount of research work was done on how to build a strong and effective/efficient workforce (Grobler et al., 2012). Specifically, factors such as the motivation of employees received a lot of attention (Fullen, 2008; Grobler et al., 2012; Gottschalg & Zollo, 2007).

### 2.2.3 The period between 1960 and 1969

During the 1960s, the use of teams was refined by psychologists and industrial engineers by studying teams in organisational settings as opposed to studies in laboratory environments. This decade generated a variety of work relating specifically to teams and the business environment (Beyerlein, 2000).
Organisations started performing production, project and service work by using teams after quality circles had first been attempted. Quality circles, a team-based process improvement effort, originated from Japanese management strategies, and led to the success of Japan as a world economic power during this period (Parker, 2007). Many organisations realised the benefits of team-based approaches such as productivity, quality and efficiency increases. For other organisations, the benefit of teams did not sufficiently manifest because of a lack of appropriate support mechanisms. However, this did not prevent organisations experimenting with teams in different forms.

2.2.4 The period between 1970 and 1999

Research during this period mainly focused on two key areas of research, namely the impact of individual ability on team performance, and team development. In the 1970s, the effect of individual ability and skill on team performance began to attract attention. Numerous studies concluded that teams consisting of members with higher task proficiency and competencies, performed better than teams consisting of individuals with fewer competencies (Kabanoff & O'Brien, 1979; Klaus & Glaser, 1970; Terborg, Castore, & DeNinno, 1976). Researchers concluded that teams consisting of individuals with higher competence levels reached improved performance levels with less training, than teams with average or poor individual competence levels (Bouchard, 1969; George, Hoak, & Boutwell, 1963; Hall & Rizzo, 1975; Klaus & Glaser, 1965; Tziner & Eden, 1985).

In the 1980s, self-directed teams, re-engineering, and high-performance work organisations were all focus areas that included teams as part of their core strategy (Parker, 2007). The evolution and maturation of operational teams was another area of focus in the mid-1980s (Glickman, Zimmer, Montero, Guerette, Campbell Morgan, JR 1987; Guerette, Miller, Glickman, Morgan, & Salas, 1987; McIntyre, Morgan, Salas, & Glickman, 1988; Morgan, Glickman, Woodard, Blaiwes, & Salas, 1986).

During the early 1990s, many organisations focused on some type of team initiative through the use of quality initiatives such as total quality management (TQM) or continuous quality improvement (CQI). An abundance of research was conducted on
shared mental models (Cannon-Bowers, Salas, & Converse, 1993; Mathieu, Heffner, Goodwin, Cannon-Bowers, & Salas, 2000). This era also saw the advent of research into team-training interventions that were theoretically based.

During the periods 1980 to mid-1999 and 1990 to 1996, respectively, researchers such as Cohen and Bailey (1997) and Sundstrom et al., (2000) provided focused reviews of work-team effectiveness based on field research. Hackman (1990) also provided broad-based advice covering task competence, group structure and the organisational context for team success in this period.

A book written by Katzenbach and Smith (1993), namely *The wisdom of teams*, provided data from 50 teams in 30 companies demonstrating the significant difference between high-performance work teams and other teams. The authors indicated that the aspect of “clear purpose” was an important characteristic of an effective team.

Also during this period, Larson and LaFasto (1989) analysed a large variety and number of successful teams and emerged with a list of eight characteristics of effective team functioning. The eight characteristics are (1) clear, elevating goals; (2) results-driven structure; (3) competent team members; (4) unified commitment; (5) collaborative climate; (6) standards of excellence; (7) external support and recognition and (8) principled leadership. In the late 1990s, internationally, studies suggested that 85% of organisations with 100 or more employees, used some type of work team (Cohen & Bailey, 1997).

### 2.2.5 The period after 2000

From the brief discussion thus far, it is clear that a wealth of research on teams has been undertaken. In this subsection, further developments in the 21st century, are addressed.

The focus in this period shifted from team work as a management fad, to teams and team effectiveness. Nowadays, teams are found across organisations, industries and continents. The central unit of the team, the team player, now becomes widely
recognised, and the focus is on the influence of team players on team effectiveness (Parker, 2007). Perhaps explaining why teams have thrived, one survey of high-level managers found that 91% of them agreed with that teams are central to organisational success (Martin & Bal, 2006:6). Other research followed with a review noting “an explosion of work” on teams (Mathieu, Maynard, Rapp, & Gilson, 2008).

Team research has also started to focus on organisational-level outcomes. For example, Barrick, Bradley, Kristof-Brown, and Colbert (2007) found that communication and cohesion among credit union, top management teams positively influenced their firms’ financial ratios. In a meta-analysis of the relationship between cohesion and team performance, Beal, Cohen, Burke, and Mcclendon (2003) distinguished between performance behaviours and performance outcomes. Team process improvements were evaluated by Kirkman, Rosen, Tesluk, and Gibson (2004) in areas such as feedback seeking, discussion and experimentation, which they claimed should lead to the ability to adapt and improve organisational performance.

In the next section, the focus is on defining the “team” concept.

2.3 DEFINING THE “TEAM” CONCEPT

It is evident that teams play a key role in organisations, and some definitions of teams are thus useful. Although numerous definitions of the “team” concept can be found in the literature, the basic components remain the same throughout.

Hackman (1987), defines a team as the groups that work together in an organisation towards a common goal, while Hackman defines a team rather narrowly, Koontz and Weihrich (1988) went further and defined teamwork as two or more persons who are co-dependent in executing a range of activities, who interact regularly with each other, make differential contributions and strive to achieve a shared goal in respect of a core task.

A team therefore can be seen as a unit of two or more people who are committed, who work together and organise their work to accomplish a shared goal or purpose
for which they hold themselves mutually accountable (Hackman, 2002; Larson & LaFasto, 1989a; Lewis-McClear & Taylor, 1998; Utley & Brown, 2010). Salas, Dickinson, Converse, and Tannenbaum (1992) concurred with the above definition, but expanded it by adding that teams have a limited life-span and membership.

It is interesting to note that in the above definition, individuals in teams hold themselves mutually accountable, which indicates that the team can be self-managed. A similar view is also evident in the two definitions given below, as stated by Barczack, McDonough, and Athanassiou (2006), Clutterbuck (2007), Katzenbach and Smith (2006), and Kinicki and Kreitner (2008).

According to Clutterbuck (2007), Katzenbach and Smith (2006), and Kinicki and Kreitner (2008), a team can be a small number of people with complementary competencies who are committed to a shared purpose, performance goals and approach for which they are mutually accountable. Barczack et al., (2006), however, define a team as having visibly well-defined roles and responsibilities that enable individual team members to know what their specific tasks are, when dispersed and hold each other accountable for those tasks.

Armstrong (2007) proposed that a team be defined as a group of employees assembled together to achieve the same goal. This suggests a narrow definition of a team focusing only on employees in an organisation. Another definition that is also narrowly defined is that of DuBrin and Dalglish (2003) and Bagraim and Werner (2007). These definitions suggest that a team is organised to work together to achieve a set of objectives that cannot be accomplished effectively by individuals.

A broader definition taking most characteristics of the above definitions into account, is that of Woods and West (2010). In their view, a team is a small group of people working on clearly defined, challenging tasks that are most efficiently achieved by a team working together rather than individuals working alone. The members of the team have clear, shared, stimulating, team-level objectives derived directly from the task; they have to work closely and interdependently to achieve these objectives; they work in distant roles within the team; and they have the required resources, autonomy and authority to help them achieve the team’s objectives (Woods & West,
The only missing component in their definition is that team members hold themselves mutually accountable.

A number of generic characteristics found in numerous definitions of the concept of a work team, by authors such as Alderfer (1977), Hollenbeck et al., (1995), Kozlowski, Gully, McHugh, Salas, and Cannon-Bowers (1996), Kozlowski, Gully, Nason, and Smith (1999) and Kozlowski and Bell (2003), indicate that a work team can be defined as follows:

1. The team is composed of two or more individuals.
2. They are there to perform organisationally pertinent tasks.
3. They share one or more mutual goals.
4. They interact socially.
5. They display task interdependencies (i.e. workflow, goals and outcomes).
6. They uphold and manage boundaries.
7. They hold themselves mutually accountable.
8. They are rooted in an organisational context that sets limitations, constrains the team and influences interactions with other units in the broader entity.

Against the above background, the following inclusive definition of a team can be formulated, which formed the basis of this study: A team consists of two or more individuals, who share a common goal or goals; to be achieved through task-interdependent activities; by members that possess a set of complementary competencies comprising of skills, knowledge and personal attributes; and who hold themselves mutually accountable.

In the next section, the different types of teams found in the literature are discussed.

2.4 TYPES OF TEAMS

Different types of teams are identified in the literature, including permanent teams, temporary teams, cross-functional teams, virtual teams, task force teams, parallel teams, committees, self-managed teams, project teams and workforce teams, to
name a few (Barthel, 2011; Cameron & Green, 2012; Greenberg, 2013; Griffin, 2013; Levi, 2014).

A brief overview of the different types of teams is given below.

2.4.1 Permanent teams

Permanent teams exist on a permanent basis and are not dissolved once the task has been accomplished, and they remain intact as long as the organisation continues to operate (Greenberg, 2013).

2.4.2 Temporary teams

Temporary teams are formed for a shorter duration and are used, for example, when organisations have an overload of work, or when a specific project with a limited life span is required. These teams lose their importance as soon as the task has been accomplished (Greenberg, 2013).

2.4.3 Task force teams

These teams are created by organisations to achieve a narrow series of purposes within a specific planned time. These teams, for example, explore the root cause of a problem which has led to a severe deviation from standards and they try to find a solution within a specified time frame (Griffin, 2013).

2.4.4 Workforce teams

Workforce teams are part of the organisation’s hierarchical system and are created when team members work together under the supervision of a team leader. In workforce teams, members are required to work independently on a range of tasks linked to specific objectives set by supervisors in the work system (Levi, 2014).
2.4.5 Self-managed teams

In self-managed teams, members have significantly more power and authority than in traditional work teams and are less dependent on the organisation’s structural hierarchy. Individuals are accountable for their own performance and work together as a team towards a common goal, coordinating activities required and making decisions and taking action on problems, without supervision (Levi, 2014). Although individuals in self-managed teams report higher job satisfaction levels than other individuals, higher turnover rates and absenteeism exist (Robbins, & Judge, 2013). The members of self-managed teams are described by Robbins (2004) as those who have the ability to accept change, be creative, take responsibility on more than that which is required, take risks if necessary, assist other team members to perform and work responsibly on their own without constant supervision.

2.4.6 Cross-functional teams

Cross-functional teams consist of employees working on similar organisational levels, but from different areas of specialty and working together towards a common objective. To function effectively, the members must be part of more than one team, in order to gain a broader perspective and to make more contributions that are important to their various teams (Greenberg, 2013; West, 2012). These types of teams are sometimes difficult to manage as the development of the team during the early stages is time consuming as members learn to work within diverse and complex environments (Robbins & Judge, 2013).

2.4.7 Virtual teams

Virtual teams are formed when members need to connect to each other situated in different places, where individuals operate across space, time and organisational boundaries, communicating with each other primarily via the internet or other electronic media (Ale Ebrahim, Ahmed, & Taha, 2009; Greenberg, 2013; Hertel, Geister, & Konradt, 2005; Horwitz, Bravington, & Silvis 2006; Katzenbach, & Smith, 2003; Robbins, 2004). This sometimes has a negative effect on cohesion and effective communication (Bergiel, Bergiel, & Balsmeier 2008; McShane, & Von
Virtual teams face special challenges, for example, lack of social support and interaction among members. Trust between team members must be established and maintained for virtual teams to be effective. Sometimes readers of electronic messages cannot sense emotion and this can lead to misunderstanding and possible discontent (Malhotra, Majchrzak, & Rosen, 2007; Wilson, Straus, & McEvily, 2006).

### 2.4.8 High-performance teams

The basic principle of high-performance teams is that people working in harmony can achieve more than people working on their own (Dalton, 1996; Greenberg & Baron, 2003). This has a synergistic effect in that teams are frequently more effective than individuals owing to the combined competence, talents and insights they add to the team. According to Kreitner and Kinicki (2001), the success of these type of teams can be achieved by encouraging participation, sharing responsibility, ensuring sufficient communication, focusing on the future, focusing on the task at hand, developing creativity and ensuring quick problem solving. Rosenthal (2007) suggests that modern managers should spend more time on monitoring team performance to ensure that expected results are achieved.

From the above it is clear that different types of teams exist, and moreover, it is vital to note the advantages and disadvantages of teams in organisations. These are the focus of the next section.

### 2.5 ADVANTAGES AND DISADVANTAGES OF TEAMS

It is evident that a vast body of research has been conducted on to teams. Numerous advantages and disadvantages of teams within organisations can be identified, and some are highlighted in this section.
2.5.1 Advantages

The following are advantages of teams:

- quick response time to the changing environments of team-based organisations (Cohen & Bailey, 1997; Glasshop, 2002);
- rapid organisational learning, leading to effectual product and service development (Rudansky-Kloppers & Strydom, 2015);
- quick information processing within complex organisational structures (West, 2012);
- higher levels of team member involvement and commitment and reduced stress levels (Richter et al., 2011);
- improved creativity and innovation within team-based organisations (Colenso, 2000);
- increased resources for problem solving, enhanced commitment to tasks, improved quality of decision-making processes and decisions made, satisfaction of team members, and raised motivation and morale of employees in the organisation (Nedelko, 2008; Rudansky-Kloppers & Strydom, 2015; Sacramento, Chang, & West, 2006; West, 2003); and
- better judgements, information sharing, complex problem solving and on the job training within teams rather than with individuals alone (Schermhorn et al., 2012).

2.5.2 Disadvantages

Teams are generally composed of members who are effective in their own area of expertise, but they often fail to realise their potential and to perform because of distinct factors (Hart, 1996; Hauschildt & Konradt, 2012). Despite the above advantages of having teams in organisations, they may have various disadvantages, which are outlined below.

- Poorly performing teams and low individual team member satisfaction may occur in spite of the benefits of teams (Fiske et al., 2010).
- Conflicting personalities and work styles may negatively affect members and disrupt team relationships and achievements (Schermhorn et al., 2012).
- Sometimes there is a lack of support systems, coordination, cooperation, as well as poor communication, interpersonal relationships and listening within
organisations, which can impact on team effectiveness (Lick, 2006; Rudansky-Kloppers & Strydom, 2015; Schermerhorn et al., 2012).

- There is little knowledge of team behaviour, relating to team members not understanding themselves, and teamwork processes, and also the inability to manage diversity effectively (Cameron & Green, 2012).
- Team effectiveness can be influenced by a lack of participation in future planning, insufficient information sharing and unclear priorities (Golosinski, 2005; Lencioni, 2005).
- Teams can sometimes fail as a result of inadequate discussions pertaining to differences between team members, the team not being focused on common goals, and internal competition (Forsyth, 2010; Stander & Rothmann, 2009).

From the above discussion, it is clear that a number of advantages and disadvantages exist in the use of teams within organisations. A crucial component of the proper functioning of teams is interpersonal behaviour. This topic is addressed in the next sections.

2.6 THE ROLE OF INTERPERSONAL BEHAVIOUR IN TEAMS

The dynamics of interpersonal relationships, prosocial behaviour, cooperation between team members, and how to handle conflict within a team, is discussed in this section.

2.6.1 The dynamics of interpersonal relationships

Part of the success of teams can be attributed to the interpersonal relations of team members. These could include team member identification with the team, team cohesion, transparent communication, commitment to shared tasks and putting the needs of the team before individual interests (Forsyth, 2010). Members of cohesive teams show more attachment and commitment to their teams and a more long-term view where team members desire to remain in the group (Arriaga & Agnew, 2001; Forsyth, 2010). Team commitment improves as team cohesion and team member identification with the team increase (Johnson & Johnson, 2006). A lack of cohesion
within a team working environment is certain to affect team performance because of the unnecessary stress and tension between coworkers (Alvarez, Butterfield, & Ridgeway, 2013).

The effectiveness of a team depends on more than only receiving the right inputs such as organisational information. Strong and positive team processes also need to be in place. Furthermore, in order to turn available inputs into high-performance outputs, team members must work well together. In analysing how well people work together in teams, a focus on team dynamics becomes critical. These are the forces manifesting within teams affecting the way members work with and relate to one another (See table 2.1).

Table 2.1
*Forces Operating in Teams that Affect the Way Members Relate to and Work with One Another*

<table>
<thead>
<tr>
<th>FORCES OPERATING IN TEAMS</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Team tasks</td>
<td>The size of the team must be considered when assigning team tasks. The sharing of information and diverse perspectives to problem solving, which results in a process gain, can be found in large teams. For better coordination and implementation of decisions, smaller groups are more effective (Bergh &amp; Theron, 2009).</td>
</tr>
<tr>
<td>Team cohesion</td>
<td>Refers to the degree to which members are dedicated to the team’s overall task and the desire of team members to stay together as a team (Goodman, Ravlin, &amp; Schminke, 1987; Banki, 2010). Cohesive teams are more effective as members participate and collaborate with each other (Aoyagi, Cox, &amp; McGuire, 2008).</td>
</tr>
<tr>
<td>Trust and ethics</td>
<td>Information sharing and collaboration improve when people trust each other. Trust occurs in a team where members believe in each other’s ability, character and integrity (Robbins, 2001). Ethics is the study of moral values and behaviour. The individual, work team and organisation are affected by unethical behaviour (Nelson &amp; Quick, 2006).</td>
</tr>
<tr>
<td></td>
<td>Beal et al., (2003) established that interpersonal, task and group pride relate to cohesion that positively influences the cohesion-performance relationship.</td>
</tr>
<tr>
<td>FORCES OPERATING IN TEAMS</td>
<td>DESCRIPTION</td>
</tr>
<tr>
<td>---------------------------</td>
<td>-------------</td>
</tr>
<tr>
<td>Team communication</td>
<td>Communication is a key team process where information and meaning are exchanged between two or more people. It is a social process through which relationships with other people are fundamentally established (Scholtes, 1988).</td>
</tr>
<tr>
<td>Team decision making</td>
<td>The effectiveness of team decision making as opposed to individual decision making, depends on the criteria used for defining effectiveness. Although individuals may work faster and possibly be less costly, teams are more accurate, creative and accepted (Bergh &amp; Theron, 2009). If the challenges of time, internal conflicts and team conformity can be managed, management and decision-making processes improve (Bergh &amp; Theron, 2009).</td>
</tr>
</tbody>
</table>

**Source:** Adapted from Bergh and Theron (2009, p. 203)

### 2.6.2 Prosocial behaviour: Helping others

Prosocial behaviour means any voluntary action intended to assist or benefit teams or team members (Brief & Motowidlo, 1986; Eisenberg, Fabes, & Spinrad, 2006). Such actions are based on empathy and concern for others (Sanstock, 2007). Prosociality is central to the well-being of social groups such as teams (Helliwell & Putnam, 2004; Straubhaar, LaRose, & Davenport, 2009).

### 2.6.3 Cooperation: Providing mutual assistance

A major strategy in the development of teamwork is to promote cooperation between group members and make them realise that working together effectively is an expected standard of conduct (DuBrin & Dalglish, 2003). A team becomes effective once some level of synergy is visible. This develops when team leaders apply shared leadership models within the team. It is also important for the leader to gain an understanding of the individuals’ different roles within the team, to appreciate each person’s competencies and talents, to establish a shared sense of accountability, and to create a team environment that is transparent, enjoyable and allows for insightful collaborations (Puth, 2008).
The cooperation theory has been referred to in the literature as a belief in cooperation and collaboration rather than competition as a strategy for team development (Tjosvold & Tjosvold, 1995). Research conducted by social and education psychologists, indicates that cooperation facilitates social interaction and productivity which is beneficial for organisations, as cooperation and collaboration ensure that team members work better together in attaining organisational goals (Tjosvold, 1984).

2.6.4 Conflict: The inevitable result of incompatible interests

Conflict occurs when incompatibility, disagreement or dissonance exist within or between social entities (Afzalur, 2010). It is experienced where individuals who are interdependent perceive incompatible differences in beliefs, values, goals or differences in desires, control and connectedness (Wilmot & Hocker, 2011).

Conflict could lead to frustration, anger, hostility, aggression and violence (Bergh & Theron, 2009). The potential for conflict exists in interpersonal relations within and between teams and other organisational processes such as strategy development and decision making (Martinez & Guerra, 2005). Conflict, although stressful, is not always negative and destructive. If managed well, it can have positive outcomes such as improved problem solving, conflict resolution and improved relationships in teams (Tjosvold, 2008).

Research has shown that effective conflict management positively impacts on team cohesiveness and performance. Lower levels of conflict exist in high-performance work teams where conflict is associated with tasks, rather than with interpersonal relationships. In addition, high levels of trust and mutual respect are visible within teams that reflect healthy patterns of conflict (Jehn & Mannix, 2001). Relationship conflict negatively impacts on team effectiveness (Amason, 1996; Jehn & Mannix, 2001).

Conflict within teams and between individuals necessitates different conflict resolution styles. These styles depend on the variables pertaining to own interest versus the interest of another party. In figure 2.1, two other dimensions of handling
conflict include, the degree of assertiveness (assertive versus unassertive), and the
degree of cooperation (cooperative versus uncooperative) leading to five possible
approaches to conflict resolution (Thomas, 1983).

![Diagram of conflict resolution styles]

**Figure 2.1.** Five approaches to handling conflict

**Source:** Adapted from Thomas (1983, pp. 484–490)

Some dimensions of the figure are briefly discussed below.

- The competing style (assertive, uncooperative) occurs when an individual seeks
to satisfy his/her own interests, at the expense of another party (Rudansky-Kloppers & Strydom, 2015).

- The collaborative style (assertive, cooperative) is a win-win approach where the
intention is to satisfy the concerns of both parties through integration of
concerns. This approach may be more time consuming because it may require
substantial bargaining and negotiation (Rudansky-Kloppers & Strydom, 2015).

- The avoiding style (unassertive, uncooperative) is followed to ignore or suppress
the conflict. Following this approach, the conflict is not permanently resolved and
is only a short-term solution. It is followed when issues are trivial, no chance of
winning exists, a disruption is costly or the conflict is delayed by obtaining more
information (Rudansky-Kloppers & Strydom, 2015).
• The accommodating style (unassertive, cooperative) occurs when it is important for one party to maintain the relationship with another party. It involves placing the opponent’s interests above own interest. Attainment of own goals/interests is sacrificed to the advantage of the other party (Rudansky-Kloppers & Strydom, 2015).

• The compromising style (intermediate in both assertiveness and cooperativeness) is appropriate when both sides are equally important, have equal power, want to split the difference, or when the parties need to find a solution under time pressure (Rudansky-Kloppers & Strydom, 2015).

It is thus essential for team leaders and team members to understand the different conflict resolution styles. This ultimately leads to healthy and effective teams (Kinicki & Kreitner, 2008).

It is blatantly clear that interpersonal behaviour plays a key role in organisations and in teams. In the literature, the terms “team” and “group” are sometimes used interchangeably. Although the main focus of this research was on the team concept and it was therefore discussed first, it is also necessary to discuss the meaning and definition of groups. This is addressed next.

2.7 GROUPS AND WORK TEAMS

The term “work group” and “team” can be used interchangeably (Bushe & Coetzer, 2007; Xyrichis & Ream, 2008), although some scholars differentiate between groups and work teams (Katzenbach & Smith, 1993). There are distinct differences between a group and a team regarding their functions in the workplace. In this section, the definition of a group is provided, and the difference between a group and a team, the process of transforming a group into a team, and Tuckman’s team development model are discussed.
2.7.1 What is a group?

A group is generally defined as two or more persons who are united by a common interest, who are interdependent and whose activities influence one another (Forsythe, 1999; Levi, 2011; Paulus, 2000; Plug, Meyer, Louw, & Gouws, 1986; Rudansky-Kloppers & Strydom, 2015). The members of a group may be together or separate.

Schein (1980, p. 145) defines a group as “any number of people who are in interaction with one another, are psychologically aware of one another and experience one another as a group”. Hackman (1987) argues that a work group consists of individuals who see themselves and who are seen by others as a social entity, who are interdependent because of the task they perform as members of a group, who are entrenched in one or more larger social systems and who perform tasks that affect others.

Robbins’ (2001) definition corresponds largely with Schein’s, although he puts more emphasis on the interaction of the members with one another and on interdependence in an effort to achieve a specific goal. He defines a group as two or more individuals, interacting and interdependent, who have come together to accomplish particular objectives. Furnham (1997) integrates all these views in his definition of a group by stating that a group consists of people who have the same goals, communicate regularly and interact with each other over time, building up emotional bonds.

The above definitions emphasise one or more of the following defining characteristics of groups:

- the need for social interaction, allowing communication and/or exertion of influence between people;
- the need for agreement on common goals, objectives and targets;
- the need for group structure, such as functions, policies, procedures, rules and clear roles to enable interaction; and
- the need for group members to have a sense of belonging.
Although the terms “group” and “team” are sometimes used interchangeably, it is clear from the above discussion that there are some differences between them.

### 2.7.2 Difference between groups and teams

Although most organisations’ workforce settings are in a group context, few groups are able to function as a team and work performed in a group context can only be partially characterised as teamwork (Ginnett, 2010; Swanepoel & Slabbert, 2012). Although it could be said that all teams are groups, one cannot conclude that all groups are teams. The following characteristics distinguish teams and groups from each other (Rudansky-Kloppers & Strydom, 2015; Swanepoel & Slabbert, 2012):

- Groups rely less than teams on their members’ capabilities.
- Groups rely less than teams on their members to work together and to be more cooperative because of the principle of collaborative interdependence between members.
- There is less individuality in the group than there is in teams, and groups operate in many units.
- Groups usually do not focus on the longer term, whereas teams typically have long-term goals that require resource and time commitments of substantial magnitude. It is more difficult to form a team than a group. A group that is formed on the basis of a certain commonality is not hard, but the effectiveness of the group may differ. The interpersonal dynamics of a group may range from totally intolerant to completely compatible (Ginnett, 2010; Swanepoel & Slabbert, 2012).
- When guiding group members towards consensus, a group uses equal parts of arguments, peer pressure and discussions. Group building may take a few minutes, while team building may take years. The members of a group have the ability to leave the group when their input or services become unnecessary.

### 2.7.3 Transforming a group into a team

Within groups, each member is responsible for his or her own individual contributions. Achieved outcomes or contributions are made in isolation. Individuals
are not concerned about what other group members achieve. Although many authors do not distinguish between a group and a team, these two concepts have different meanings.

After going through the following four stages, groups are transformed into teams (Rudansky-Kloppers & Strydom, 2015; Wheelan, 2010):

- When the group changes into a team, team leadership is shared by team members.
- The group members free themselves from their dependency on the leader and conflict exists about procedures and goals. In a team, however, there is less conflict as the objectives are clear.
- The members of the group are able to resolve conflicts, but no real structure exists in the team. In a team, the members are in a trusting relationship and clear team structure exists.
- The group focuses on individual performance, whereas in a team, the team members focus on team productivity.

After a group has transformed into a team, it is necessary to discuss the stages teams undergo when formed.

### 2.7.4 How teams are formed

According to Tuckman (1965), teams are formed through a number of stages, which he calls, forming, storming, norming and performing (see figure 2.2). These stages are repetitive in nature, and do not have a specific timeline. A stage called “adjourning”, was later added by Tuckman (1977), which he sees as the stage where the team dissolves after a job has been completed or members leave the team. The ideal purpose, according to Tuckman, is that the performing stage is reached by the team, thus allowing it to operate as a high-performance work team.

Tuckman and Jensen’s (1977) five stages of team development are an appropriate way of analysing a team as well as identifying the role of team players during each stage.
According to Tuckman and Jenson (1977), there are five stages of team development, which include forming, storming, norming, performing and adjourning (Rudansky-Kloppers & Strydom, 2015). All these stages are inevitable and necessary to enable the team to develop and grow, deal with challenges, resolve problems, and seek and implement solutions in order to achieve results. Figure 2.2 depicts the stages of team development model with its five stages, which are now discussed.

2.7.4.1 Forming

During this stage, the team is formed. Members are eager to achieve outputs. At this stage, team members feel anxious, tentative, awkward and uncertain about the team’s purpose and goals (Weaver & Farrell, 1997; Whichard & Kees, 2006; Tuckman & Jenson, 1977). The team is only able to move to the next stage if the members’ eagerness overcomes their anxiousness, tentativeness and awkwardness. However, if these feelings are higher than their motivation and enthusiasm, the team could dissolve (Rudansky-Kloppers & Strydom, 2015).

2.7.4.2 Storming

During this stage conflict manifests both inside and outside the team. This is due to frustration, unclear roles, competition between team members and possible resistance to team development (Harris & Sherblom, 2011; Whichard & Kees, 2006). As the dynamic focus of teamwork become clear, the members enter the stage in which different viewpoints, ideas, work styles and methodologies compete for
consideration (Bilder, 1989; Spiegel & Torres, 1994; Tuckman & Jenson, 1977). This stage is vital for the team as members feel that they are unable to work together. Many teams break up during this phase (Rudansky-Kloppers & Strydom, 2015).

2.7.4.3 Norming

During this stage, responsibilities and roles are clarified, where the focus on interpersonal relationships moves to decision-making activities. The team resolves differences and begins to focus on task accomplishment and collaboration in order to achieve results (Jones & George, 2009). Once the conflict decreases, protocols and procedures are put in place, and team differences are resolved in order to meet team objectives (Tuckman & Jenson, 1977; Weaver & Farrell, 1997). During this stage, team members begin to trust and respect one another, and a more cohesive team starts to develop (Harris & Sherblom, 2011; Rudansky-Kloppers & Strydom, 2015; Whichard & Kees, 2006).

2.7.4.4 Performing

During this stage, both team effectiveness and a high-performance impact are experienced by the team (Katzenbach & Smith, 2003). This stage describes the team’s willingness to work together to settle specific norms and rules on how decisions are made and discussions should take place (Harris & Sherblom, 2011). The team becomes more consistent, interdependent, achieves results and team members experience higher levels of satisfaction (Tuckman & Jenson, 1977; Whichard & Kees, 2006). The team members are capable and eager to make decisions without supervision (Gibson, Ivancevich, Donnelly, & Konopaske, 2009). Disagreements are dealt with in a respectful manner following acceptable team processes (Gilley, 2005). Expected outputs are achieved, conflicts are resolved and clear roles are established. Conflicts and negative issues experienced during the earlier stages decrease (Jones & George, 2009; Rudansky-Kloppers & Strydom, 2015).
2.7.4.5 Adjourning

The final stage of team development is called adjourning. The focus is on getting the job done and not on the activities to get the job done (Draft & Marcic, 2009; Tuckman & Jenson, 1977). The members of the team are proud of their accomplishments, but also somewhat sad about losing friendships because of the adjourning of the team (Draft & Marcic, 2009). Adjourning of the team offers opportunities to celebrate and award team and team member successes for a job well done (Jones & George, 2009; Tuckman, & Jenson, 1977). Harris and Sherblom (2011) argue that this stage is crucial in the team’s development because the way in which the group members terminate their activities, affects the way they will interpret what they have experienced and accomplished as a team and what they expect of the team in future (Rudansky-Kloppers & Strydom, 2015).

Table 2.2 provides a summary of each stage of Tuckman’s model.

Table 2.2
Summary of Tuckman’s Development Stages of Teams

<table>
<thead>
<tr>
<th>STAGE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
</table>
| Forming | Members are unfamiliar with each other, polite, obedient, hesitant and uncertain.  
This stage is branded by unclear purpose of the team, as well as feelings of anxiety, nervousness and awkwardness (Weaver & Farrell, 1997; Whichard & Kees, 2006; Tuckman & Jenson, 1977).  
Try to determine acceptable behaviour.  
Seek to establish ground rules and to identify the purpose and nature of the team and its task (Rudansky-Kloppers & Strydom, 2015).  
Establish how the team will get the job done.  
Team optimism is important in the new team to achieve outcomes (West, Patera, & Carsten, 2009). |
| Storming | Original unwillingness to convey opinions is followed by a period of disagreement.  
Control is resisted and open hostility is shown (Harris & Sherblom, 2011; Whichard & Kees, 2006).  
Alliances are formed resulting in subgroup conflict.  
Task evasion occurs as members enjoy the arguments.  
Conflict during the storming stage will be managed by the leader. |
It is evident that teams need to go through certain stages and that each stage of development is critical for becoming an effective team. The next question is what is an effective team? This question is answered in chapter 3.

2.8 CONCLUSION

It is clear that when people work together towards a shared goal, organisations are more successful. Organisations increasingly structure work around teams. This is known in the literature as team work (Fong, Hills, & Hayles, 2007; Kozlowski & Bell, 2003; Lawler, Mohrman, & Ledford, 1995). Hierarchical organisations with autocratic management styles are being replaced with effective teams, empowered individuals and mentored by transformational 21st-century leader-managers. In chapter 3 the theoretical overview of team effectiveness is discussed.
3.1 INTRODUCTION

Researchers have identified effective teamwork as one of the key characteristics of high-performance organisations (Afolabi, Adesina, & Aigbedion, 2009; Levi, 2015; Schlechter & Strauss, 2008; Sheng & Tian, 2010). Managing and leading the workforce is a complex task, as employees bring with them a certain uniqueness to the company which needs to be harnessed to achieve its goals (Ashton & Morton, 2005; Lockwood, 2006; McCauley & Wakefield, 2006; Wheelan, 2014). It is necessary for organisations to clarify and thoroughly understand the meaning of team effectiveness in order to utilise teams and enhance the overall success of the organisation (Hackman, 2002; Irving & Longbotham, 2007; Piccoli et al., 2004; Pina et al., 2008; Ross et al., 2008).

In the previous chapter the importance of teams was highlighted. This chapter provides a definition of team effectiveness, and discusses various team effectiveness models and the components for creating effective teams.

3.2 DEFINITION OF TEAM EFFECTIVENESS

Given the significant role that teams play in organisations, it is necessary to define the concept of team effectiveness.

Guzzo and Dickson (1996, p.307) define team effectiveness indicators as “group produced outputs like quality, speed and customer satisfaction; the consequences a group has for its members; or the enhancement of a team’s capability to perform effectively in future”.

Team effectiveness relates to the capacity that a team has to realise the goals and objectives formulated and mandated by the organisation (Aubé & Rousseau, 2011). A team consists of selected individuals operating interdependently, who share responsibility for results, and function within an institutional system operating from an established mandate (Hu & Linden, 2015). A synonymous relationship between teams and groups has been established within processes and research relating to their effectiveness. Groups maintain their independence as two separate units and their members are independent of each other's role, competence or purpose, whereas teams and their members are interdependent upon each other's role, competence and purpose (Kozlowski & Ilgen, 2006).

For the purposes of this study, team effectiveness is referred to as the achievement of shared goals and objectives through the coordination of team members' tasks (Irving & Longbotham, 2007).

3.3 RELEVANT MODELS FOR TEAM EFFECTIVENESS

Increasing evidence suggests that team effectiveness models, as traditionally defined, do not successfully deal with modern-day work team challenges (Fiore, Salas, Cuevas, & Bowers 2003; Graetz, Boyle, Kimble, Thompson, & Garloch, 1998; Johnson, Suriya, Yoon, Berrett, & LaFleur, 2002).

Traditional input-process-output (IPO) frameworks fail to capture the role of mediators in understanding the team process-outcome relationships, which has led to revisions in existing team effectiveness models (Ilgen et al., 2005; Marks, Mathieu, & Zaccaro, 2001). Consistent with this idea of expanding traditional team effectiveness models, Marks et al., (2001, p. 356) observed that a multitude of researchers have operationalised team processes using variables that reflect emergent states (i.e. situational awareness, potency, cohesion and trust), defined as "cognitive, motivational, and affective states of teams, as opposed to the nature of their member interaction". Hence emergent states do not describe team processes themselves, but serve as mechanisms through which team interaction influences team outcomes.
Researchers have increasingly recognised the key role of emergent states in the study of team behaviour, including team empowerment, safety climate, justice climate and trust (Kozlowski & Bell, 2003; Kozlowski & Klein, 2000; Mathieu et al., 2008).

In addition to this expanded view of mediators in understanding team effectiveness, it is extensively recognised that teams are dynamic and adaptable systems. This led theorists to focus on the time-based nature of teams (Cohen & Bailey, 1997; Ilgen et al., 2005; Kozlowski & Bell, 2003; Marks et al., 2001; McGrath, 1991). Cross-sectional data does not sufficiently model the dynamic and changing nature of teams. Therefore, the extent to which research findings based on these data generalise to team interaction and behaviour across the team’s lifespan is uncertain. Hence studies measuring the crucial variables across the team’s lifespan provide a deeper understanding of team interaction and the dynamics associated with it (Kozlowski & Bell, 2003; Mathieu et al., 2008; Mathieu & Taylor, 2007).

Various team effectiveness models are discussed in the next subsection.

### 3.3.1 Team effectiveness models

#### 3.3.1.1 The input-process-output model

Models of face-to-face (not virtual) team effectiveness, which are ever-present in the literature on team development and functioning within face-to-face teams, usually relate to the input-process-output (IPO) framework as shown below in figure 3.1 (Gladstein, 1984; Hackman, 1987; Kozlowski & Bell, 2003; McGrath, 1964; 1991; Shea & Guzzo, 1987; Sundstrom et al., 2000; Tuckman, 1965).

*Figure 3.1. Input-process-output framework*

*Source: Adapted from McGrath (1964, pp. 10 - 13)*
Team inputs reflect factors that may add to or limit team processes at multiple levels (Mathieu et al., 2008). Inputs, which include individual (e.g. personality characteristics and expertise), group (e.g. size and task) and organisational (e.g. rewards) factors, are hypothesised to apply influence on team processes, which represent members' interactions aimed at the achievement of goals (Marks et al., 2001).

In the IPO framework, team processes drive outputs, including objective (e.g. task performance) and subjective (e.g. team member satisfaction, perceived effectiveness and, team viability) outcomes (Guzzo & Dickson, 1996; Kozlowski & Bell, 2003; Mathieu et al., 2008). IPO models assume a sequential process, whereby inputs influence team processes (e.g. communication and conflict), which then influence team outcomes (i.e. task performance and team member attitudes). Although a selection of team inputs and outcomes have been examined in the literature on traditional team effectiveness, more research on team processes is still required (Marks et al., 2001; Mathieu et al., 2008).

Furthermore, research has shown that team viability is predicted by indicators such as social cohesion and open communication (Barrick et al., 1998; Foo, Sin, & Yiong, 2006). The assessment of team members' ability to work together as a unit in the future defines the concept of team viability (Barrick et al., 1998; Hackman, 1987; Kozlowski & Bell, 2003).

3.3.1.2 Marks' model of team processes

Although research supports the suggestion that team processes serve as mechanisms that drive team outcomes, the study of team processes themselves has advanced slowly because of the differing conceptualisations of team process variables. In an effort to provide an integrative framework from which to study team processes in face-to-face teams, Marks et al., (2001) proposed a model of team processes founded on a comprehensive literature review contained in existing team process literature. Specifically, Marks et al.,’s taxonomy, which has been validated in face-to-face teams (LePine, Piccollo, Jackson, Mathieu, & Saul, 2008), classifies
team processes into three main categories, namely transition processes, action processes and interpersonal processes.

Transition processes explain interactions between team members as they plan how to execute their tasks, and include goal specification (Dickinson & McIntyre, 1997) and strategy formulation (Gladstein, 1984) activities. Whereas transition processes typically occur between performance episodes as teams evaluate and reformulate their strategies for future work, action processes, which describe the *how* of teams (Weingart, 1997), occur when they participate in activities directly related to goal achievement (Marks et al., 2001). Examples of action processes would be monitoring progress towards goals (Cannon-Bowers, Tannenbaum, Salas, & Volpe, 1995) and task coordination (Brannick, Roach, & Salas, 1993).

Lastly, interpersonal processes are focused on the development and maintenance of team member relationships. Interpersonal processes, defined as “activities that foster emotional balance, togetherness, and effective coping” (LePine et al., 2008, p. 277), include confidence building (Fleishman & Zaccaro, 1992) and conflict management (Cannon-Bowers et al., 1995). Hence interpersonal processes reflect the humanistic aspects of teamwork and usually operate throughout the team’s life-cycle (Marks et al., 2001).
LePine et al., (2008) empirically tested the Marks et al., (2001) team process framework using studies of face-to-face teams. Their findings revealed that transition, action and interpersonal processes represent unique constructs, each of which has positive and robust relationships with objective and subjective team effectiveness criteria (i.e. team performance and member satisfaction). Notably, the magnitude of the relationships between transition, action and interpersonal process dimensions and outcomes were roughly equivalent, indicating that each type of process makes an equally significant contribution to explaining team outcomes in face-to-face teams.

Overall, these results expand traditional IPO models of team effectiveness by showing the influence of action, transition and interpersonal team process variables on important objective and subjective outcomes.

3.3.1.3 The Korn/Ferry T7 model of team effectiveness

To gain a better understanding of the working of teams, Lombardo and Eichinger (1995) initially developed the T7 model representing the main factors influencing work team performance, see figure 3.3. Their research literature review identified five factors internal and two factors external to the team impacting on team effectiveness.

The five internal team factors include the following:
- thrust – a common purpose relating to team results that need to be achieved;
- trust – team members trusting each other;
- talent – the collective competence of the team members in order to complete the job;
- teaming skills – operating effectually as a team; and
- task skills – executing the job successfully.

The two external team factors are as follows:
- team-leader fit – the extent to which team member needs are satisfied by the team leader; and
• team support from the organisation – the extent to which organisational leaders assist team performance.

Figure 3.3 *The T7 model of team effectiveness*

**Source:** Adapted from Lombardo and Eichinger (1995, p. 4)

In total, team effectiveness for the five internal factors is described in 18 dimensions (see table 3.1 below).

Table 3.1  
*Inside the Team Factors and Dimensions*

<table>
<thead>
<tr>
<th>INTERNAL FACTOR</th>
<th>DIMENSION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thrust</td>
<td>• Thrust management</td>
</tr>
<tr>
<td></td>
<td>• Thrust clarity</td>
</tr>
<tr>
<td></td>
<td>• Thrust commitment</td>
</tr>
<tr>
<td>Trust</td>
<td>• Trust in honest communication</td>
</tr>
<tr>
<td></td>
<td>• Trust in actions</td>
</tr>
<tr>
<td></td>
<td>• Trust internal the team</td>
</tr>
<tr>
<td>Talent</td>
<td>• Talent development</td>
</tr>
<tr>
<td></td>
<td>• Talent allocation and utilisation</td>
</tr>
<tr>
<td>Teaming skills</td>
<td>• Resource management</td>
</tr>
<tr>
<td>----------------------</td>
<td>-----------------------</td>
</tr>
<tr>
<td></td>
<td>• Team learning</td>
</tr>
<tr>
<td></td>
<td>• Decision making</td>
</tr>
<tr>
<td></td>
<td>• Conflict resolution</td>
</tr>
<tr>
<td></td>
<td>• Team atmosphere</td>
</tr>
<tr>
<td></td>
<td>• Managing process</td>
</tr>
<tr>
<td>Task skills</td>
<td>• Focus</td>
</tr>
<tr>
<td></td>
<td>• Assignment flexibility</td>
</tr>
<tr>
<td></td>
<td>• Measurement</td>
</tr>
<tr>
<td></td>
<td>• Delivering products / services</td>
</tr>
</tbody>
</table>

**Source:** Lombardo and Eichinger (1995)

It is essential that all five internal factors are present in order for teams to be able to perform optimally. However, organisational and leadership support is a prerequisite for a team to be a high-performance team. The effectiveness of thrust, trust, talent, teaming and task skills is dependent on organisational support and the leadership fit, (Lombardo & Eichinger, 1995).

### 3.3.1.4 The Rubin, Plovnick and Fry model: the GRPI model of team effectiveness

The model of Rubin, Plovnick, and Fry (1997), is one of the oldest models of team effectiveness. It is also referred to as the “GRPI model,” which is an acronym for goals, roles, processes and interpersonal relationships.

According to the model, the first step for a team is to define a team-level goal. Once the goal has been clarified, the roles and responsibilities also become clear. If roles and responsibilities are not clearly defined, team members need to redefine them. This redefinition also helps to refine other team processes such as decision making, problem solving, conflict resolution and work flow. This supports the development of interpersonal relationships required within the team.

Figure 3.4 depicts Rubin, Plovnick, and Fry’s (1997) model of team effectiveness.
Goal definition refers to team members having clarity on the main purpose, priorities and deadlines of the team, understanding the main tasks to be achieved, comprehending the boundaries and agreeing on standards and expectations and the desired results.

Role clarification refers to having a clear understanding of the main purpose of the team as well as mutual agreement on and understanding of the team’s activities and outputs.

Processes and workflow comprise team and work processes. Team processes include, for example, team problem solving and conflict resolution. Work processes include, for example, workflow and procedures.

Interpersonal relationships comprise fostering trust between team members, and ensuring transparent communication and collaborative problem solving, effective methods for conflict resolution, and sensitivity and flexibility with team members.
3.3.1.5 The Katzenbach and Smith model: focusing on team basics

According to Katzenbach and Smith (1993a), people understand the competencies of teams, but that there is a natural struggle to move beyond roles, responsibilities and accountabilities of individuals. Responsibility for the performance of others is not easily accepted by individuals. In order to overcome this resistance, team members need to understand, accept and apply “the basics” of teamwork. These team basics are shown in the form of a triangle.

The following three overarching goals are depicted in figure 3.5: (1) collective work products, (2) personal growth, and (3) performance results. These outcomes are presented in the vertices of the triangle and indicate what teams can deliver. In contrast, the sides and centre of the triangle describe the team elements required to achieve commitment, skills and accountability.

![Figure 3.5. Focusing on the team basics model](image)

**Source:** Adapted from Katzenbach and Smith (1993a, p. 8)
Katzenbach and Smith (1993a) argue that in order to be successful, team members are required to be committed to their goals, approach and purpose. Team members also need to be committed to each other. Team members understand that the “wisdom of teams comes with a focus on collective work-products, personal growth, and performance results” (Katzenbach, & Smith, 1993b). They claim that pursuing demanding performance goals at the team level results in successful teams.

In order to diagnose the functioning of teams and enhance their effectiveness, Katzenbach and Smith (1993a), pose the following six questions:

- Is the size of the team appropriate?
- Do members have sufficient complementary skills?
- Is the purpose of the team truly meaningful and understood?
- Are there team-oriented goals, and are they clear, realistic and measurable?
- Does the team have a well thought-out, articulated working approach?
- Is there a sense of mutual accountability?

According to Katzenbach and Smith (1993b), teams can only be effective, if all six questions are satisfactorily addressed.

3.3.1.6 The LaFasto and Larson model: Five dynamics of teamwork and collaboration

LaFasto and Larson (2001) developed a model of team effectiveness which they refer to as the “five dynamics of team work and collaboration.” This model, see figure 3.6 is based on insights obtained from investigating 600 teams in various industries. For teams to increase the prospect of team effectiveness, five fundamental elements must be actively managed and understood. LaFasto and Larson (2001) provide an adequate definition of the components reflected in their model.
A key to team success is to begin with the relevant people. Four essential behaviours for members in a team setting include the following: (1) openness, (2) supportiveness, (3) an action orientation, and (4) a “positive personal style”. The components of the model are addressed as questions, such as the following, LaFasto and Larson Model (2001):

- What are the abilities and behaviours that really matter for a good team member?
- What group behaviours are conducive for effective team member relationships?
- What behaviours of teams cause them to be more successful than others at problem solving?
- What are the behaviours of team leaders that indicate team success or failure?
- What organisational processes and practices promote clarity, confidence and commitment in a team?
3.3.1.7 The Hackman model: team effectiveness model

According to Hackman (2002), a team is most likely to be effective when the following conditions are satisfied: (1) It is a real team rather than a team in name only; (2) The team has a compelling direction for its work; (3) It has an enabling structure that facilitates teamwork; (4) The team operates within a supportive organisational context; and (5) It has available ample expert coaching in teamwork.

Hackman (2002) argues that team effectiveness is a function of exceeding customer expectations in product/service delivery, developing team capabilities over a period and satisfying team members’ needs. These points are depicted in the model in figure 3.7.

![Diagram](image-url)

Supportive Organisational Context

Team Effectiveness

Real Team

Compelling Direction

Enabling Structure

Expert Coaching

Figure 3.7. Conditions for the team effectiveness model

Source: Adapted from Hackman (2002, p. 10)

Hackman (2002) goes on to shed light on the following five required conditions for team effectiveness:
• A “real team” features four elements, namely a team task, clear boundaries, clearly assigned authority to make team decisions and membership stability.
• Having clear direction refers to whether the team is clear on the ends to be achieved rather than on the means that the team must use to achieve these ends.
• An enabling structure entails the team’s task, composition and norms of conduct to enable rather than restrict teamwork.
• Supportive organisational context refers to whether the team receives adequate support in the form of resources, information, training, rewards, cooperation with the team and organisational support required by members to achieve results.
• Expert coaching availability helps team members to deal with opportunities and threats, and developing weaknesses.

A team is most likely to be effective when the above conditions are met (Hackman, 2002).

3.3.1.8 The Lencioni model: understanding team dysfunction

Lencioni (2005) developed an interesting model of team effectiveness. He argues that all teams have the potential to be dysfunctional. By diagnosing the type and level of the dysfunctionality, team solutions can be applied to make the team more effective. The pyramid below demonstrates the hierarchical progression of team development. Similar to Maslow’s hierarchy of needs theory (1954), there are five levels, and each has to be completed before moving on to the next level (see figure 3.8).

![Pyramid Diagram](image)

*Figure 3.8. Five potential levels of dysfunction of a team*

*Source:* Adapted from Lencioni (2005, p. 11)
Table 3.2  
*Five Potential Levels of Dysfunction of a Team*

<table>
<thead>
<tr>
<th>DYSFUNCTIONS</th>
<th>DESCRIPTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Absence of trust</td>
<td>Team members are reluctant to reveal their weaknesses, admit their mistakes or show the need for help. Team members are not comfortable to openly reveal their vulnerabilities, without which, trust is not possible.</td>
</tr>
<tr>
<td>2 Fear of conflict</td>
<td>If trust does not exist, teams are not capable of engaging in transparent, honest and passionate debate on key issues that they face. This leads to dysfunctional conflict and results in suboptimal decisions.</td>
</tr>
<tr>
<td>3 Lack of commitment</td>
<td>Without conflict, team members do not commit to decisions, which lead to an ambiguous environment. The result of unclear direction and insufficient commitment leaves team members, often star members, disempowered and frustrated.</td>
</tr>
<tr>
<td>4 Avoidance of accountability</td>
<td>When there is lack of commitment to a clear action plan, even the best team members are reluctant to collaborate with fellow team members on counterproductive actions and behaviours.</td>
</tr>
<tr>
<td>5 Inattention to results</td>
<td>When accountability is avoided, team members tend to put their own interests ahead of the team goals. When the need for achievement is lost, the organisation ultimately suffers.</td>
</tr>
</tbody>
</table>

*Source:* Adapted from Lencioni (2005, p. 11)

In the above table, the five potential levels of dysfunction in a team are described. As stated by Lencioni, (2005), all teams have the potential to be dysfunctional and by diagnosing the type and level of the dysfunctionality, team solutions can be applied to make the team perform more effectively.

### 3.4 CORE COMPONENTS OF TEAMWORK

From the above, it is evident that there are various components of teamwork that play a role in teams. For teams to function effectively and deal with realities and changes in the external environment, four components, as described in figure 3.9, are instrumental, and serve as the means towards achieving improved task performance, member viability and member satisfaction, ultimately resulting in team effectiveness.
According to this model (figure 3.9), teams function within external environmental realities and changes at global, national, industry, sector and organisation levels.

The following four key components of teamwork are summarised in figure 3.9 (Rubin et al., 1997):

- **Leadership** refers, inter alia, to the direction that team leaders provide to the team in the form of clarifying the team purpose, obtaining agreement on results and
standards, creating clarity on priorities and understanding the scope of team operations.

- **Team member role clarification** refers to team members with respect to their individual and team roles and responsibilities, member boundaries and accepting and/or participating in determining team direction.

- **Team work processes** refer to those processes required for achieving team results. These processes include, inter alia, information gathering, decision making, problem solving, action implementation and team performance monitoring.

- **Interpersonal processes** refer to those processes required to achieve harmony within the team such as communication, conflict handling, trust, team culture development, mutual support, fostering good relations and collaboration within the team.

If the above processes are effective in a team, the expectation is that it promotes the achievement of the criteria of task performance, member viability and member satisfaction which, in turn, lead to team effectiveness (Coetzer & Bushe, 2006; Fiske et al., 2010; Rubin et al., 1997).

### 3.5 EFFECTIVE TEAM PERFORMANCE

In order to assess effective team performance, the following criteria and characteristics should be considered:

#### 3.5.1 Criteria for effective teams

It is vital to note the three criteria for effective teams, namely task performance, member satisfaction and team viability (Coetzer & Bushe, 2006; Fiske et al., 2010). Task performance refers to the team achieving team goals in terms of relevant indicators relating to quantity, quality and timeliness. Member satisfaction occurs when team members are satisfied with their team activities and interpersonal relationships. Team viability occurs when team members are satisfied to continue working well together in future (Coetzer & Bushe, 2006; Fiske et al., 2010; Schermerhorn et al., 2012).
3.5.2 Characteristics of effective teams

Effective teams consist of effective team players. The characteristics of effective teams are as follows:

- An informal, relaxed and comfortable atmosphere exists (McGregor, 1960).
- Everyone participates in discussions (McGregor, 1960).
- Team objectives are understood and accepted by team members (Levi, 2015).
- Team members listen to each other (Joubert, 2012).
- The team is comfortable with disagreement, and consensus decision making occurs (Parker, 2007).
- Freedom of expression is practised (Johnson, Heimann, & O'Neill, 2000).
- Clear assignments are made and accepted.
- Team leaders do not dominate discussions (Rudansky-Kloppers & Strydom, 2015).
- The team has appropriate resources (human, material and financial resources) to enable it to perform tasks (Hackman, 2002; Rudansky-Kloppers & Strydom, 2015).

As teams are never completely self-directed or independent, it is important for effective teams to fit into an organisation. If the team’s progress is not monitored by management, team members may lose interest and direction (Rudansky-Kloppers & Strydom, 2015).

3.6 CREATING EFFECTIVE TEAMS

Having identified the characteristics of effective teams, the question that needs to be asked is how does one go about creating such teams? A number of steps to achieving this goal exist. Firstly, the team members need to possess the necessary skills to perform the job, which, besides the technical skills, also includes the required behaviours and attitudes. To ensure that a variety of viewpoints are taken into account when making decisions in the team, a level of diversity should exist in team members’ life and work experience, cultures and functional backgrounds. If team members can manage their differences as a valuable strength rather than a
threat to their individual identities, diversity can be transformed into innovation (Bell, 2007; West, 2012).

3.6.1 Building blocks for creating effective teams

It is clear that a number of building blocks need to be in place to create effective teams, and these are the focus of this section. In figure 3.10, the building blocks for effective teams are identified, which are then used as the basis for the discussion.

Figure 3.10. Building blocks for creating effective teams

Source: Mattson, Mumford, and Sintay (1999, pp. 1 – 16); Stewart and Barrick (2000, pp. 135 –148)

Figure 3.10 is discussed in more detail below.

3.6.1.1 Contextual factors that determine team effectiveness

• Adequate resources. Every work team is dependent on resources external to it. The ability of a team to perform its job well is directly affected by a shortage of resources. Teams need clear goals and objectives, suitable technology, high-quality inputs, adequate reward systems and resources to support their work. If these are not available, the team is unable to function optimally (Hyatt & Ruddy, 1997; Rudansky-Kloppers & Strydom, 2015).
- **Leadership and structure.** For teams to function effectively, their members need to agree on who does what. It is also important to ensure that the work load is divided equally among the members to affect all of this. Strong leadership and a proper team structure are necessary. The leader plays a vital role in providing team members with empowering experiences such as the following: team member development; delegating authority; shared accountability for outputs; encouraging participative decision making; and enabling information sharing (Arnold, Arad, Rhoades, & Drasgow, 2000; Bartram & Casimir, 2006; Linden, Sparrowe, & Wayne, 2000).

- **Climate of trust.** It is necessary to establish trust between team members (Dirks, 2000; Joubert, 2012; Williams, 2001). Interpersonal trust between team members reduces the need to monitor members’ behaviour, facilitates collaboration and enables members to trust that other members in the team will not take advantage of them. Openly sharing information with teammates promotes positive climactic states (e.g. trust, cohesion), which ought to improve team socio-emotional outcomes and, in turn, team performance (Beal et al., 2003; Mesmer-Magnus & DeChurch, 2009).

- **Performance evaluation and reward system.** Individually focused performance evaluation and reward systems should be modified to reflect team performance (Johnson, 1993; McClurg, 2001). The development of high-performance teams may be hindered by individual performance evaluations and incentives. To strengthen team commitment, management should consider evaluating and rewarding team members for their individual contributions, implement team-based appraisals, offer profit and gain sharing incentives and other system adjustments (Robbins & Judge, 2009).

It is necessary for the above contextual factors to be in place in order to determine team effectiveness.
3.6.1.2 Team composition

To ensure effective team composition, the following components need to be in place:

- **Abilities of members.** Part of a team’s performance depends on the competencies of its individual members (Hirschfeld, Jordan, Feild, Giles, & Armenakis, 2006). It is thus necessary to look at the selection process stage to verify and evaluate the competencies of new members when looking for new team members. This process also applies to existing members being used as part of new teams. When team members have competencies that best fit the task demands, team performance is more likely to improve (Levi, 2015; Stevens & Campion, 1994).

- **Personality of members.** The literature suggests that three traits need to be present in team members, namely conscientiousness, openness to experience and agreeableness (Barrick et al., 1998; Bell, 2007). According to the literature, conscientious people are valued in teams as they can sense when support is truly needed and are good at assisting other team members. With regard to openness in the team, team members become more creative and communication between them improves (Colquitt, Hollenbeck, & Ilgen 2002; Porter, Hollenbeck, & Ilgen, 2003). Agreeableness within teams is also essential as teams with one or more highly disagreeable member tend to perform poorly.

- **Allocation of roles.** Eight potential team roles are identified in the literature, namely explorer promoter, assessor developer, thruster organiser, concluder producer, controller inspector, Upholder maintainer, reporter adviser and creator innovator. Teams need to identify people who are able to fill those different roles (Margerison & McCann, 1990). These eight roles are discussed in detail in chapter 4. Although the role of the linker is primarily the responsibility of the team leader, this role needs to be played by everyone in the team. Team goals are achieved by enabling members to work together. While these roles are built on preferences, linking is a skill that can be learnt. The individual strengths of team members should be understood by managers. As far as team members’
strengths are concerned, managers should choose team members and assign projects that correlate with members’ preferred styles. In order to increase the probability that team members will work well together, management need to match individual preferences with team role demands.

- **Diversity of members.** The diversity of team members can play a crucial role in team effectiveness. Diversity is more likely to have positive effects on issues such as team processes and team performance when team members believe in the value offered by diversity (Joubert, 2012; Van Der Vegt, Bunderson, & Oosterhof, 2006; Van Knippenberg, Haslam, & Platow, 2007). Diversity offers several advantages, but when a team is focused on frequently held information, a universal problem exists. Diverse teams need to shift their focus from their similarities to their differences in order to realise their potential (Joubert, 2012). A mix of competencies, personalities, experiences and backgrounds that members bring to the team is critical and should be considered when composing a team (Joubert, 2012).

- **Size of teams.** The size of a team can impact on team effectiveness. As a team grows, more members become available to do the work required and achieve set goals. This leads to more satisfied members and increased team performance, but up to a certain point (Katzenbach & Smith, 1993). Owing to the size of the team, member satisfaction may decrease, social loafing and absenteeism may increase and coordination problems may arise (Mendonça, Brooks, & Grabowski, 2014). For larger teams, even logistical issues such as establishing times and places for meetings, can become problematic (Katzenbach & Smith, 2005).

As far as team numbers are concerned, the literature indicates the following:
- Teams with odd numbers of members tend to be preferred because, for example, the possibility of having a tie when a vote takes place, is removed (McKenna, 2000).
Teams comprising five or seven members work well as they are large enough to ensure a diverse input is obtained, and small enough to avoid the negative results regularly encountered with larger teams (Bergh & Theron, 2009).

- **Member preferences.** Not all members are team players. Some individuals choose not to participate in a team setting (Kiffin-Peterson & Cordery, 2003; Shaw & Stark, 2000). When individuals, who prefer to work alone, are obligated to team up, the team’s morale and the individual members’ satisfaction may be directly affected. Therefore, together with individuals’ talents, competencies and personalities, their preferences should also be considered when selecting team members. A team composed of individuals who enjoy working as part of a team is likely to be a high-performance one (Robbins & Judge 2009).

The above factors relating to team composition are essential for a team to be effective.

### 3.6.1.3 Work design

Skill variety, task identity and the ability to work on a task that has a considerable impact on others are variables of work design. These work design characteristics enhance member motivation as they increase members’ sense of accountability and team effectiveness because the work is more exciting to perform (Campion, Papper, & Medsker, 1996; Kirkman & Rosen, 2000; Man & Lam, 2003; Wageman, 1997). It is thus important that these components are built into the structure of a job.

### 3.6.1.4 Team process variables

The following team process variables are critical for teams to be effective:

- **Common plan and purpose.** A team is effective when team members have a clear plan and purpose that provide direction and commitment (Blanchard, Carew, & Parisi-Carew, 1996; Hess, 1987; Scott & Townsend, 1994). A substantial amount of time and effort are spent by successful teams to design and mutually agree on a purpose that ties in with the team and the members.
This shared purpose provides the team with guidance and direction. Teams that do not have effective planning skills are destined to fail (Mathieu & Schulze, 2006). To be effective, teams need to be flexible and be able to adjust their master plan when conditions call for it (Burke, Stagl, Salas, Pierce, & Kendall, 2006; Gurtner, Tschan, Semmer, & Nagele, 2007; Schippers, Den Hartog, & Koopman, 2007).

- **Specific goals.** Successful teams translate their tasks into realistic and measurable performance goals and objectives. Transparent communication is facilitated by specific goals (Joubert, 2012). Without clear and specific performance goals, members are not motivated to give their best effort. Clear goals also help teams to maintain their focus (Locke & Latham, 2002). However, these goals must be challenging, but not impossible or too difficult to attain (DeShon, Kozlowski, Schmidt, Milner, & Wiechmann, 2004; Weldon & Weingart, 1993).

- **Team efficacy.** Team efficacy occurs when teams are confident and believe they can thrive (Gibson, 2003; Jung & Sosik, 2003; Tasa, Taggar, & Seijts, 2007). Successful teams’ views about future accomplishments increase, which, in turn, inspires them to work harder (Robbins & Judge, 2009).

- **Team mental models (TMM).** Effective teams have shared and precise mental models. TMMs are defined as shared mental representation of knowledge by team members (Mathieu et al., 2005). Team performance suffers when members have the wrong mental models. This may cause the team to argue over how things should be done, instead of focusing on what needs to be done (Edwards, Day, Arthur, & Bell, 2006; Ellis, 2006; Kozlowski & Ilgen, 2006; Mathieu et al., 2005; Mathieu et al., 2000; Robbins, 2009). Numerous studies on shared TTM support the view that team effectiveness is positively affected when members have appropriate team mental models (Mohammed, Ferzandi, & Hamilton, 2010). The degree to which team members are comfortable and experience a feeling of belonging relates positively to team effectiveness or the level of team performance (Beal et al., 2003; Evans & Dion 1991; Gully, Devine, & Whitney,
Conflict levels. The competency of managing conflict effectively is imperative for effective team work because limited conflict may stimulate team activity and improve team effectiveness, (Jehn, 1997; Peterson & Behfar, 2003). However, too much interpersonal conflict wastes significant energy that could have been used to achieve the team’s goals. Excessive conflict leads to disruptive behaviours and poor team member cooperation (Chrusciel, 2006; Stone & Redmer, 2006).

Other reasons for conflict in teams can relate to task interdependence, the reward structure, competition for scarce resources and communication obstacles (Joubert, 2012). Possibly the most fundamental factor in causing conflict is the degree to which the successful performance of one person or unit depends on the performance of another. Misunderstandings occur owing to an inability to communicate, or limited access to communicational channels, as well as from communication barriers, poor listening and language and cultural differences, which can all lead to team conflict (Joubert, 2012).

From the above discussion, it is evident that there are a lot of crucial components that need to be put in place in order to create effective teams within organisations. The next section highlights the barriers to team effectiveness which are also important for this study as team members need to be aware of the impact that these barriers can have on team effectiveness if they are to succeed in achieving synergy within the team and overcoming the barriers.

### 3.7 BARRIERS TO TEAM EFFECTIVENESS

There are a number of barriers which team members must learn to overcome in order to become part of an effective team. These are discussed below:

- **Social loafing.** When individual efforts are combined with those of other team members, members tend to work less (Rudanskry-Kloppers & Strydom, 2015),
which can lead to conflict between members and impact on team performance. This is known as social loafing (Rutte, 2003). In effective teams, members are individually and jointly accountable for the team’s achievement of goals, which would to a large extent curb social loafing (Price, Harrison, & Gavin, 2006).

- **Poor problem solving and decision making.** If teams cannot solve problems they are faced with, and also struggle when having to make decisions, then they find it difficult to work together successfully. This can impact negatively on the overall performance of the company (Zaccaro, Heinen, & Shuffler, 2009).

- **Personality factors.** The individual team members’ personalities can also impact on them working together properly. For example, team members who are hesitant in providing their knowledge and thoughts during team meetings, fail to add value to the team’s store of information, which results in inadequate decision making (Barrick et al., 1998; Joubert, 2012).

- **Groupthink.** Errors in a team’s decision making can occur when teams that work together closely are more concerned with reaching agreement than with the quality of the decisions made, which will result in poor performance of the team (Brown, 2000; Kozlowski & Ilgen, 2006).

- **Communication skills.** Poor decision making can be the result of team members who lack the required communication skills to successfully present their views and interpretations at team meetings (Brown, 2000; Kozlowski & Ilgen, 2006)

- **Domination.** Certain individuals may dominate the team by arguing so strongly with the opinion of others that their own views prevail to the detriment of the team (Brown, 2000; Kozlowski & Ilgen, 2006).

Having identified a number of barriers which can impact on team effectiveness, it is necessary to also look at the different ways in which to overcome these barriers. This is addressed in the next section.
In order to overcome the barriers to team effectiveness mentioned in the previous section, a number of vital interventions are required. These include team training, team culture development, enhancing communication in teams, improving decision making in teams and boosting team leadership, which are discussed in detail below:

3.8.1 Team training

Team training interventions have revealed that although they have a consistent effect on team members’ behaviours and attitudes towards one another, the effect they have on team task performance is minimal (Tannenbaum, Salas, & Cannon-Bowers, 1996). The most recent review compared the effectiveness of three types of team training, namely cross-training, team coordination and adaption training, and guided team self-correction training (Salas, Nichols, & Driskell, 2007).

- **Cross-training.** Cross-training describes an intervention whereby team members rotate positions during training to develop a better understanding of the competencies required regarding the different team roles. Individuals are better equipped to anticipate the needs of and provide support to other members when equipped with knowledge of important information to be shared and what activities to perform interdependently (Cannon-Bowers, Salas, Blickensderfer, & Bowers, 1998; Dickinson & McIntyre, 1997; Volpe, Cannon-Bowers, Salas, & Spector, 1996).

- **Team coordination and adaption training.** To increase team effectiveness by reducing the amount of communication needed for effective task performance, this training equips team members with the skills required to adapt their communications and coordination strategies. This team strategy has commonly been employed in the aviation industry where it is a component of crew resource management training (West, 2012).
• **Guided team self-correction training.** This training involves team members identifying problems within the team, developing effective solutions and teaching team members how to effectively participate in a team discussion (Blickensderfer, Cannon-Bowers, & Salas, 1997a, b; Smith-Jentsch, Cannon-Bowers, Tannenbaum, & Salas, 2008). In order to increase team processes and performance, outcomes of the event are discussed by team members.

Team training interventions are a feasible approach organisations can take in order to enhance team outcomes. These training interventions are beneficial for improving cognitive outcomes, affective outcomes, teamwork processes, and performance outcomes. Moreover, results suggest that training content, team membership stability, and team size moderate the effectiveness of team training interventions (Salas et al., 2008).

### 3.8.2 Team culture development

Organisational culture entails the shared meaning held by employees that differs from organisation to organisation (Schein, 1996). A strong culture directs how people should behave in the organisation in most situations. It also provides insight into team players regarding what and who is valued in the organisation’s set of values. It shows who the high-performers of the organisation are and how high performance is defined and rewarded. A culture of teamwork encourages teamwork, not because it is an imposed requirement, but because it is viewed as the best way to get things done (Robbins & Judge 2009).

According to Parker (2007), the following crucial links exist in an organisation’s culture.

- **A link between culture and strategy.** Successful organisational strategies are aligned with the culture of the organisation. If an organisation allows for team-based strategies, the organisational values and norms should emphasise communication, collaboration and consensus (Parker, 2007).

- **A link between culture and structure.** A culture of open and effortless collaboration across organisation functional lines should be facilitated by a
conducive structure, and recognition should be given to team leaders who effectively manage diverse members across functions (Parker, 2007).

- **A link between culture and systems.** A culture should be in place that allows teams to obtain required information to complete their tasks and achieve objectives. A culture that values team players should be aligned to the performance management system to reward team players (Parker, 2007).

Team culture is thus crucial for the successful functioning of the team, as well as for ultimate organisational success.

### 3.8.3 Enhancing communication in teams

Communication is one of the basic team processes and can be defined as the exchange of information and meaning by two or more people (Smit, Cronje, Brevis, & Vrba, 2007). Communication in teams is a fundamental social process because it is only through communication that members establish relationships with other team members (Bergh & Theron 2009). Effective two-way communication is a requirement for effective team performance (Joubert, 2012). A number of authors argue that increased levels of communication among team members are a key to better team performance (Green, & Compton, 2003; Patrashkova-Volzoska, McComb; Pinto & Pinto, 1991). The success in teams depends on sharing knowledge and effective communication between team members (Al-Alawi, Al-Marzooqi, & Mohammed, 2007; Ancona & Caldwell, 1992; Bergiel et al., 2008; Jablin & Sias, 2001; McDermott, Waite, & Brawly, 1999; Townsend & DeMarie, 1998).

Personal verbal communication communicates less than 10% of a message, 40% by the voice tone and 50% through body language (Burke, 2014; Fulfer, 2001). Research suggests that if there is incongruence between verbal and nonverbal communication, the nonverbal message is weighted more by the listener (Mangelsdorf, 2008). Moreover, judgements based on nonverbal communication can occur at lightning speed. One study suggests that people form an opinion based on
body language within 115 milliseconds (Jordan-Meier, 2012). Communication is thus a vital link for effective team performance.

3.8.4 Improving decision making in teams

Many factors can either enhance or hinder the effectiveness and efficiency of making decisions in teams (Sanders, 1999).

The basic form of team decision making occurs in face-to-face interaction between team members (Barker, Wahlers, & Watson, 2001). Decision making is preceded by information gathering of which the most common techniques are, inter alia, brainstorming (Rudansky-Kloppers & Strydom, 2015), focus group research (Carey & Asbury, 2016), questionnaires (McGuirk & O’Neill, 2016), Delphi/expert panels (Rudansky-Kloppers & Strydom, 2015), desktop research and surveys/field studies.

Once the necessary information has been gathered, possible solutions and options can be identified and prioritised. In many instances, teams are sometimes overwhelmed with the magnitude of information which can make decision making difficult. In addition, a number of stakeholders can also be influenced by the decision making which may further complicate the process.

3.8.5 Boosting team leadership

Leadership is one of the most researched and publicised topics. Zaccaro, Rittman, and Marks (2001) suggest that leadership may be a vital component for team successes or failure. Leadership entails the development of vision, goals and strategies and engaging people to pursue these (Gaunt, 2006). According to Shonhiwa (2006) and Gaunt (2006), leadership is the ability to influence people and utilise resources in a way that enables achievement of identified goals.

Given the important role of teams, the proactive management and leadership of team performance are required for organisational success (Chen et al., 2007; Eisenbeiss, et al., 2008; Morgeson et al., 2010; Schaubroeck et al., 2007; Transcritti, 2010). Team members need to work together in a team because successful
participation in teams improves the leadership skills and morale of members and improves processes, procedures and productivity in the organisation (Gibson et al., 2009; Klein et al., 2009; Spiegel & Torres, 1994).

Team leaders influence various elements in teams and organisations, including coordination, cooperation, information sharing, creativity, problem solving, actions, empowerment, commitment, overall team performance and a positive or negative emotional climate (Ahearn, Ferris, & Hochwarter, 2004; Burke, Stagl, & Klein, 2006; Chen, Lam, & Zhong, 2007; Sy, Cote, & Saavedra, 2005).

Team leaders must also be willing to take action to correct weaknesses in the team (Kogler-Hill, 2007). From the above discussion, it is clear that leadership is another concept that plays a key role in developing successful teams.

3.9 CONCLUSION

Over the past decade, there have been numerous studies on shared team mental models, which mainly support the view that team processes and effectiveness are positively affected by proper team mental models (Mohammed et al., 2010).

In chapter 4 the roles of individuals in teams are discussed. This includes a definition of personality and individual differences, personality trait frameworks, the different frameworks for team roles / styles as well as an in-depth discussion of Neethling’s whole brain eight-dimensional model focusing on the thinking style preferences of individuals.
CHAPTER 4

ROLES OF INDIVIDUALS IN TEAMS

4.1 INTRODUCTION

Since 2001, there has been a dramatic increase in research on and acceptance of the role of personality factors or individual differences in understanding employees’ performance and organisational behaviour (Robbins, 2001; Huang, Ryan, Zabel & Palmer, 2014). There is a fair amount of knowledge on how personality composition relates to team results (Bell, 2007). However, little is known about the interaction between teams and how individual personality and team-level characteristics interact to influence team member behaviour (Barrick et al., 1998; Bell, 2007).

It has been accepted for some time that cognitive or intellectual personality factors, and also biographical personality factors, correlate positively with and influence various aspects of working behaviour. However, since the 1980s, amended research and assessment has shown that team performance is influenced more significantly by the psychological and social aspects of personality differences than was previously accepted (Ashton, 2007; Barrick & Ryan, 2003; Guion & Gottier, 1965).

In light of the above, this chapter discusses the definition of personality and individual differences, personality trait frameworks, the different approaches to team roles and Neethling’s whole brain eight-dimensional model, focusing on the thinking style preferences of individuals.

4.2 DEFINING PERSONALITY AND INDIVIDUAL DIFFERENCES

Personality and individual differences are often referred to as more or less the same “phenomenon”, or in an additional way, one concept really specifies or qualifies the other (Furnham, 2008; Maltby, Day, & Macaskill, 2007).
Personality refers to a profile of consistent attributes, behaviour and uniqueness of persons across time and situations (Bergh & Theron, 2009; Weiten, 2008). Personality entails individual differences, and contains psychological qualities that contribute to some extent to most aspects of human behaviour (Cervone & Pervin, 2008).

Individual differences include all inherited and acquired factors such as psychological, social, moral, cognitive, physical or other related personality factors that might indicate differences and similarities between people. More specifically, individual differences are observed in personality traits, intellectual abilities, motives or needs, emotional traits, values, attitudes, interests, physical and physiological attributes, health behaviours and personal historical factors or biographical characteristics (Furnham, 2005). In a sense, all individual differences can be said to define personality, which explains why collectively these factors determine an enduring, consistent personality profile according to which a person behaves and is known by others in various life roles, for example, in work and team performance (Barrick & Ryan, 2003; Furnham, 1992; 1997; Maltby et al., 2007; Murphy, 1996).

Differential psychology researches attributes in people in order to understand their behaviour, which is important in predicting people's behaviour in particular situations (Ashton, 2007; Eysenck, 2004; Furnham, 2008; Landy & Conte, 2004; Maltby et al., 2007). Psychologists, who measure individual differences and their relationships in a required workplace setting, enable employers to acquire and develop talent and competence among employees to ensure a meaningful employee-job-fit, and increase morale (Van der Zee, Zaal, & Piekstra, 2003).

Having defined the concepts of personality and individual differences, the most influential personality trait frameworks are now discussed.

4.3 PERSONALITY TRAIT FRAMEWORKS

Early efforts to determine traits that govern behaviour resulted in extensive traits lists. These were difficult to generalise and yielded little practical direction to organisational managers. Two psychometric assessments, namely the Myers-Briggs
Type Indicator and the Big Five model are used for assessing personality traits/personality types. These two approaches have become the preferred frameworks for identifying and classifying traits (Robbins & Judge, 2009).

### 4.3.1 The Myers-Briggs Type Indicator (MBTI)

The MBTI (Briggs, & Myers, 1993) has proven to be the most widely used personality assessment instrument worldwide (Kennedy & Kennedy, 2004). It consists of a 100-question personality test asking respondents how they usually feel or behave in particular situations. On the basis of their answers, individuals are classified as extroverted or introverted (E or I), sensing or intuitive (S or N), thinking or feeling (T of F), and judging or perceiving (J or P). Depending on the test scores, a person is allocated one of eight possible codes, which denotes his or her psychological type. A total of 16 different psychological types are thus possible. Such a psychological type is interpreted in terms of particular behaviours or how a person will react in particular circumstances. These terms are defined in table 4.1 below.

Table 4.1

*Myers-Briggs Type Indicator Terms and Definitions*

<table>
<thead>
<tr>
<th>MBTI TERMS</th>
<th>DEFINITIONS</th>
</tr>
</thead>
</table>
| Extroverted versus introverted | • Extroverted individuals can be described as outgoing, sociable and assertive.  
• Introverted individuals can be described as quiet and shy. |
| Sensing versus intuitive  | • Sensing type individuals tend to focus on details; they are practical and prefer order and routine.  
• Intuitive type individuals are out-of-the-box thinkers and see the “big picture”.* |
| Thinking versus feeling  | • Thinking types rely on logic and reason to deal with problems and situations.  
• Feeling types rely on their emotions and personal values. |
| Judging versus perceiving | • Judging types prefer to be in control and feel comfortable in an orderly and structured environment.  
• Perceiving types are spontaneous, inspirational and flexible. |

*Source:* Adapted from Briggs-Myers, Kirby, and Myers (1993, pp. 590 – 602)
Despite its popularity, mixed evidence exists as to whether the MBTI is a valid measure of personality. Most evidence suggests that it is not (Arnau, Green, Rosen, Gleaves, & Melancon, 2003; Bess & Harvey, 2002; Capraro & Capraro, 2002; Pittenger, 2005). A key challenge is that persons are “labelled” as either one type or another. One is either an extrovert or an introvert, and there is little room for in-between positions. In other research, some aspects of the MBTI assumptions have been verified, for example, the relationship between these Jungian types and job interests, different types of occupations, different ways of thinking and other personality traits (Schultz & Schultz, 1994; Furnham, 2008).

Sharp, Hides, Bamber, and Castka (2000) worked with several teams using the MBTI for determining personal differences, and argue that the understanding of personal differences has led to the overall improvement of a team performance. The MBTI has advantages for increasing self-awareness and providing possible career guidance (Robbins & Judge, 2009).

4.3.2 The Big Five personality model

This personality model, unlike the MBTI, boasts an impressive research base supporting its theory that five basic dimensions are fundamental and incorporate most of the significant variances in human personality (Barrick & Mount, 2005; Oh, Wang, & Mount, 2011). A relationship between the Big Five personality dimensions and job performance was also researched with positive results (Barrick & Mount, 2004; Hogan & Holland, 2003; Hurtz & Donovan, 2000; Oh & Berry, 2009). Research also found that team members with high levels of conscientiousness, extroversion, openness to experience and agreeableness perform best (Bell, 2007).

Table 4.2 depicts the factors and trait descriptors from the Big Five Model.
### Table 4.2

**Factors and Trait Descriptors from the Big Five Model**

<table>
<thead>
<tr>
<th>THE BIG FIVE FACTORS</th>
<th>TRAIT DESCRIPTIONS</th>
</tr>
</thead>
</table>
| Extroversion         | • This dimension relates to a person’s comfort level with relationships.  
                       | • Extroverts tend to be outgoing, sociable and assertive (Foti & Hauenstein, 2007).  
                       | • Introverts tend to be quiet, reserved and timid. |
| Agreeableness        | • The agreeableness dimension refers to an individual’s tendency to submit to others.  
                       | • Highly agreeable people tend to be more cooperative, trusting and warm.  
                       | • Low scores on agreeableness imply that a person tends to be cold, disagreeable and antagonistic. |
| Conscientiousness    | • This dimension measures reliability.  
                       | • A highly conscientious person tends to be organised, dependable, responsible and persistent.  
                       | • Low scores on this dimension imply that a person tends to be disorganised, easily distracted and unreliable. |
| Emotional stability  | • This dimension measures emotional stability, for example, a person’s tendency towards neuroticism and the ability to deal with stress.  
                       | • Positive emotional stability is reflected in a secure, calm and self-confident demeanour.  
                       | • High negative scores show people that tend to be insecure, depressed, nervous and anxious. |
| Openness to experience| • This dimension addresses a person’s range of interest and innovative behaviour.  
                       | • Extremely open people tend to be more curious, adaptive, creative and artistically sensitive, and they cope better with organisational change (LePine, Colquitt, & Erez, 2000).  
                       | • Low scores on this dimension indicate people who are conventional and find comfort in the familiar. |

**Source:** Adapted from Pervin and John (1997, pp. 114 – 158)

The above personality trait approaches as depicted in table 4.2, focus on traits in individuals’ personalities and are used extensively in practice. Apart from these approaches, team members are appointed to various roles, behaviours, styles or preferences to make a team more effective.
4.4 DIFFERENT FRAMEWORKS FOR TEAM ROLES/STYLES

Member selection for a team should be based on their personalities, competencies and preferences as teams have diverse needs. Team members are matched to a range of roles in effective teams. A balance of roles needs to exist in order for a team to be successful and when a specific role is vacant, another member of the team needs to fill that role.

The subparagraphs below explain the different frameworks for team roles / styles.

4.4.1 Belbin's team roles model

The different roles that team members fulfil in teams have been widely researched by numerous authors (Bell & Kozlowski, 2002; Chong, 2007; Giuri, Rullani, & Torrisi, 2008; Griffin, Patterson, & West, 2001; Williams Woolley et al., 2007). An American psychologist, Dr Meredith Belbin, conducted major research in the area of effective teamwork. He identified nine team roles, called role analysis, that are deemed to enhance team success. He argued that if one of these nine roles are not filled by a team member, they cannot be called a team, but only a number of individuals who work together (Belbin, 2000).

The Belbin team role analysis model is hardly used as an integrated approach for team work, but is an extremely powerful tool for team development. A team role describes a tendency to act, behave, contribute and interrelate with others in a particular way (Robbins, 2004). In his research, Belbin (2000) identified different groupings or clusters of behaviour. He found that these groupings or clusters form the basis of successful teams. See table 4.3 below for more detail.
Table 4.3

Belbin’s Team Roles Model

<table>
<thead>
<tr>
<th>CLUSTER</th>
<th>ROLE</th>
<th>DESCRIPTION</th>
<th>CHARACTERISTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>People</td>
<td>The resource investigator</td>
<td>Outgoing with wide networks</td>
<td>Extrovert, enthusiastic, communicative, explores opportunities, develops contacts</td>
</tr>
<tr>
<td>oriented</td>
<td>The coordinator</td>
<td>Binds the team together effectively</td>
<td>Clarifies goals, delegates, mature, promotes decision-making, confident, delegates tasks</td>
</tr>
<tr>
<td></td>
<td>The team-worker</td>
<td>The cooperative team player</td>
<td>Diplomatic, cooperative, good listener, averts friction</td>
</tr>
<tr>
<td>Cerebral</td>
<td>The plant</td>
<td>The creative type who generates ideas</td>
<td>Imaginative, unorthodox, creative, solves difficult problems</td>
</tr>
<tr>
<td>roles</td>
<td>The monitor-evaluator</td>
<td>Assesses the practicality of ideas</td>
<td>Clear-headed, strategic and perceptive, sees the whole picture, judges accurately</td>
</tr>
<tr>
<td></td>
<td>The specialist</td>
<td>The one with specialist skills</td>
<td>Offers specialised competencies, single-minded, self-starting, devoted, dedicated</td>
</tr>
<tr>
<td>Action-</td>
<td>The shaper</td>
<td>Works well under pressure</td>
<td>Self-motivated, excels under pressure, challenging, determined to overcome obstacles</td>
</tr>
<tr>
<td>orientated</td>
<td>The implementer</td>
<td>Those who turn ideas into solutions</td>
<td>Dependable, well-organised, reliable, old-fashioned, competent, turns ideas into practical actions</td>
</tr>
<tr>
<td></td>
<td>The completer-finisher</td>
<td>The person who completes tasks</td>
<td>Meticulous, thorough, anxious, identifies mistakes and omissions, meets deadlines</td>
</tr>
</tbody>
</table>

Source: Belbin (2000, pp. 283-288)

Three clusters and nine team roles were identified along with their descriptions and characteristics as illustrated in table 4.3 above.

In order to become more successful, members need to become more flexible. Instead of only using their natural tendencies, they should be able to adapt their behaviour as required and not be rigid in their natural tendencies. Research by Fletcher (2002) has shown that high-performance individuals adapt their roles to the
tasks as required by the situation. According to Fletcher (2002), even Belbin admits that weaknesses exist in each role, for example, the plant battles to communicate effectively, the coordinator could be manipulative, the monitor evaluator struggles to inspire, the implementer tends to be inflexible, the completer-finisher resists delegating, the resource investigator loses interest quickly, the specialist focuses too narrowly, the team worker tends to be indecisive and the shaper tends to antagonise people.

4.4.2 McShane and Von Glinow’s view on team roles

A team role is defined by McShane and Von Glinow (2003, p. 241) as a “set of behaviours that people are expected to perform because they hold certain positions in a team and organisations”. They distinguish between task-oriented and relationship-oriented roles. They claim that all these roles are fulfilled by team members to facilitate optimal and effective functioning of the team. Table 4.4 illustrates the roles for team effectiveness.

Table 4.4

<table>
<thead>
<tr>
<th>ROLE</th>
<th>FUNCTIONS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TASK-ORIENTATED ROLES</strong></td>
<td></td>
</tr>
<tr>
<td>Initiator</td>
<td>Sets meeting goals</td>
</tr>
<tr>
<td>Information seeker</td>
<td>Needs clarification on ideas</td>
</tr>
<tr>
<td>Information giver</td>
<td>Shares information regarding team goals</td>
</tr>
<tr>
<td>Coordinator</td>
<td>Coordinates subgroups and integrates ideas</td>
</tr>
<tr>
<td>Evaluator</td>
<td>Tracks team performance</td>
</tr>
<tr>
<td>Summariser</td>
<td>Acts as the team’s institutional memory</td>
</tr>
<tr>
<td>Orienter</td>
<td>Keeps the team goal-driven</td>
</tr>
<tr>
<td><strong>RELATIONSHIP-ORIENTATED ROLES</strong></td>
<td></td>
</tr>
<tr>
<td>Harmoniser</td>
<td>Mediates conflicts within the group and reduces tension</td>
</tr>
<tr>
<td>Gatekeeper</td>
<td>Encourages team member participation</td>
</tr>
<tr>
<td>Encourager</td>
<td>Recognizes the ideas of other team members</td>
</tr>
</tbody>
</table>

Source: McShane and Von Glinow (2003, p. 241)
4.4.3 Tony Alessandra’s relationship strategies

The relationship strategies model was developed by Alessandra and O’Connor (1996) (see figure 4.1). The platinum rule in his relationship strategies model is to treat others as they want to be treated. One of the main reasons for team failure is because personality differences are disregarded. Insight into those differences helps to make the best possible use of team members’ strengths (Alessandra & O’Connor, 1996).

![Figure 4.1. Alessandra’s relationship strategies](image)

**Source:** Adapted from Alessandra and O’Connor (1996, pp 123-131)

In figure 4.1, the four different social styles are identified as directors, socialisers, thinkers and relaters. This model can provide insight into individual team members regarding their social styles within teams. In changing or adapting behaviour it benefits both individuals and teams and makes them more successful (Alessandra & O’Connor, 1996).

Table 4.5 below depicts the four social styles with their related characteristics and weaknesses.
Table 4.5
Social Styles within Teams

<table>
<thead>
<tr>
<th>SOCIAL STYLE</th>
<th>CHARACTERISTICS</th>
<th>WEAKNESSES</th>
</tr>
</thead>
</table>
| Directors    | • Are goal driven go-getters.  
• Are most comfortable when in charge of people and situations.  
• Want to meet deadlines now,  
• Deploy no-nonsense approaches to achieve bottom line results.  
• Accept challenges, take control and solve problems.  
• Are fast-paced, task-oriented and achieve results on their own. | • Become frustrated with delays.  
• Are driven, dominating, stubborn, impatient and insensitive to others. |
| Socialisers  | • Are friendly, enthusiastic, action-seeking individuals.  
• Thrive on admiration, acknowledgement and praise.  
• Are idea people and dreamers who excel at getting others excited about their ideas.  
• Are risk-takers often basing decisions on intuition. | • Impatience, do not like being alone.  
• Short attention span.  
• Not inclined to verify information. |
| Thinkers     | • Are analytical, persistent, systematic individuals who enjoy solving problems.  
• Are attentive to detail.  
• Are in control of their emotions.  
• Expect high standards of themselves and others.  
• Are somewhat slow decision makers.  
• Research, compare, calculate risks, determine margins of error and then take action. | • Over-critical.  
• “Paralysis by over-analysis” due to tendency towards perfectionism.  
• Do not like surprises and problems.  
• Are sceptical and would like to see promises in writing. |
| Relaters     | • Are warm, nurturing individuals.  
• Are good listeners, friends for life and loyal employees.  
• Develop strong networks of people who are mutually supportive and trustworthy.  
• Make excellent team players.  
• When faced with change, they consider it carefully, and then accept it as normal.  
• Strive to maintain balance, personal composure and stability.  
• Are courteous, warm and friendly, and share responsibilities. | • Become distressed when disruptions are severe. |

Source: Adapted from Alessandra and O’Connor (1996, pp. 123-131)
From the above table, it is clear that although each social style identified consists of strong characteristics, each style also contains weaknesses.

4.4.4 Glenn Parker’s four team player styles

Another model is that of Parker (2008), who states that there are four types of team players, each with his or her own strengths and potential weaknesses. Understanding the four-team player styles provides insight into team leaders and members to better understand themselves and their contribution to team success. Figure 4.2 shows the four team player styles and key behaviours relating to each style.

![Figure 4.2. Four team player styles and key behaviours](source: Parker (2008, p. 72))

Figure 4.2 illustrates the following (Parker, 2008):
A *contributor* is task oriented and enjoys providing technical information to the team. He or she prepares well and influences the team to achieve high standards and use their resources optimally. The contributor is perceived as responsible, trustworthy and organised.

A *collaborator* is goal directed and regards the vision, mission and goals of the team as the basis, but remains flexible and open to new ideas. This individual is willing to go beyond his or her own defined role and feels comfortable sharing the limelight with other team members. The collaborator can be seen as a strategic, conceptual person.

A *communicator* is a process-oriented member. He or she is a good listener who facilitates involvement in conflict resolution, consensus building, feedback provision and the development of an informal culture. The communicator is perceived as a positive social person.

A *challenger* questions the goals, processes and values of the team, is willing to show disagreement with the leader and others and encourages the team to take manageable risks. People appreciate the value of the challenger's frankness and openness.

Team success depends on different styles, with each style bringing unique strengths to the team. Successful teams understand that style diversity is important, but it is the ability of team members to recognise and utilise this diversity that is a key factor in creating and sustaining a high-performance team (Parker, 2008).

### 4.4.5 Margerison-McCann’s team management systems

Margerison and McCann (1990) developed and validated an instrument (the team management profile) to measure team roles, constructed on the original work of Jung (1923) on psychological types. To determine team roles, the following two underlying constructs, namely work preferences and types of work, need to be discussed:
4.4.5.1 Work preferences

It is imperative that in order to realise the potential of team members, they are given work activities they prefer doing. When members work in areas that align with their preferences, they perform better. The so-called “law of the four Ps” seems to apply here – when we practise what we prefer, we perform better and gain pleasure from our work. We always tend to practise what we prefer. Team members have different attitudes, priorities and preferences, and appreciating and understanding these differences is central to the theory of work preferences. The following four key issues are at the core of managerial differences (Margerison & McCann, 1990):

- how people prefer to relate to others (extroverted/introverted);
- how people prefer to gather and use information (practical/creative);
- how people prefer to make decisions (analytical/belief); and
- how people prefer to organise themselves and others (structured/flexible).

Figure 4.3. Work preference measures

Source: Adapted from Margerison and McCann (1990, p. 72)
4.4.5.2 Types of work

Margerison (2001) identified nine different “types of work” that need to be performed effectively in successful teams. The following is a summary of each work function:

- advising – gather and report information;
- innovating – create and experiment with new ideas;
- promoting – explore and present opportunities;
- developing – assess and test the applicability of new methods, products or services;
- organising – establish and implement methods to make things work;
- producing – finalise and deliver outputs;
- inspecting – control and audit the working of systems and processes;
- maintaining – uphold and safeguard standards and procedures; and
- linking – integrate and coordinate team efforts.

The Margerison-McCann team-management wheel is a role preference model that brings together the separate work preference measures into eight key roles that describe workplace behaviour emanating from preferences. The wheel consists of eight outer sectors each with double-barrelled words such as explorer-promoter, assessor-developer. The first word, for example, “explorer”, addresses the behaviour portrayed by a person on the sector map, whereas the second word is derived from the type of work as per the work wheel (Martin, 2005). Figure 4.4 depicts the role preference model.
Figure 4.4. Margerison-McCann Team Management Wheel

Source: Adapted from Margerison and McCann (1998, p. 27)

Brief descriptions of the team role preferences are provided below Margerison and McCann (1998).

Reporters-advisers are
- exceptional at organising and gathering information in an easy to understand way; and
- persistent people who only act once they have all the relevant information.

Creators-innovators are
- people who like creating new ways of performing tasks and thinking up of new concepts;
- self-determining people who chase their ideas irrespective of existing procedures and structures and may be seen as disorganised and easily distracted; and
• frequently looking ahead instead of worrying about the now and are therefore occasionally accused of being absent-minded.

**Explorers-promoters** are
• exceptional at selling ideas to members, both internal and external to the organisation;
• extremely active, energised people performing more than one activity at the same time and are big promoters of change; and
• brilliant at developing an eagerness for innovation among team members and at seeing the total picture.

**Assessors-developers**
• do not usually create new ideas themselves, but are outstanding at making the ideas of others work in practice; and
• exhibit a strong investigative approach and are in their element when presented with numerous possibilities to analyse and develop before making a decision.

**Thrusters-organisers**
• enjoy making things happen;
• emphasise targets, deadlines and budgets, and organise people to take action;
• prefer to work according to a plan in a structured manner and set clear objectives for team members to achieve; and
• are inclined to be task oriented and may occasionally disregard people’s feelings in their pursuit of achieving goals.

**Concluders-producers**
• are practical individuals who see things through to the end;
• develop plans and standardise systems to achieve outputs in a controlled manner;
• work effectually and do not dream up new ideas; and
• show patience with routine work and are motivated when they do a job well.
**Controllers-inspectors**
- are quiet, detail oriented, reflective individuals enjoying working with facts and figures;
- prefer working quietly on their own in a careful, meticulous way; and
- work within the rules and regulations established in the organisation.

**Upholder-maintainers**
- base decisions on strong personal values and principles;
- prefer working with people sharing the same principles and values as they do; and
- work in a control-oriented, supportive way, ensuring that standards are met.

**Linkers**
- describe team members’ responsibilities, ensuring established and sustained relationships.

Identifying work-style preferences helps organisations understand why some work teams are successful while others are not. The work of Belbin and others established that successful teams are not based on a collection of technically high-performing people but on a blended mix of the right team roles. This means that, when selecting or building a team, people’s personality profiles and the roles they prefer to perform should be taken into account. Team members should know their own natural preferences but also be capable and willing to perform other team roles (Margerison & McCann, 2001).

### 4.5 Neethling’s Whole Brain Eight-Dimensional Model

The aim of this study is to explore the perceptions of employees’ team performance related to Neethling’s thinking style preferences. It is therefore necessary at this stage to discuss Neethling’s whole brain eight-dimensional model in detail.

In organisations, the ideal job for each individual can be designed, taking into account his or her brain preferences. This makes it possible to choose a job not only...
from a skills point of view, but also a job that the individual will enjoy doing. The application of whole brain thinking to managers and leaders is crucial to dealing with strategic and employee challenges. Contemporary leaders need to be whole brain leaders, who understand the different brain preferences of individual team members. This enables them to lead individuals in an inspirational way (Neethling, 2005).

Individual thinking preferences are identified by the Neethling whole brain eight-dimensional model. Understanding how individuals prefer to think, makes them more sensitive to the preferences of others. The advantages of understanding one’s own thinking profile include, inter alia, developing better relationships, making more dynamic team contributions and improving decision making (Neethling, 2005).

More accurate job and career choices could lead individuals to enjoy more productive and fulfilled personal and work lives (Geyser, 2000; Neethling, 2005). A focus on thinking preferences implies that the end result is neither good nor bad or right or wrong.

Neethling’s whole brain eight-dimensional profile objectively describes an individual’s thinking choices. No profile is better or worse than another. Instead, a description of an individual's thought preferences is provided, showing recommendations based on those. Neethling’s whole brain eight-dimensional profile measures an individual’s thinking preferences, and not the skills or competences required to perform on a job. It is therefore possible that extremely strong preferences for structure, planning and organising exist, but the individual has never had the opportunity to develop the skills to plan and organise. These skills should be developed for a given career (Neethling, 2005).

Conversely, an individual might be highly competent in a specific job, but has a low preference for the job or the processes associated with it. This might lead to an individual losing passion and energy to stay happy and productive in such an environment. The profile indicates and explains the dominant or high preference areas as well as the average and low preference quadrants. It is possible for an individual to have a high preference in two contrasting quadrants. This implies that the individual alternates between the preferences associated with the contrasting
quadrants. A strong preference in a quadrant does not necessarily mean that an individual has equally strong preferences for all the processes associated with the quadrant (Neethling, 2005).

Understanding one’s thinking style preferences influences one’s communication, problem-solving, decision-making and management styles. This provides a new perspective of oneself and of others with whom one interacts daily (Geyser, 2000; Neethling, 2005; Nieuwenhuizen & Groenewald, 2006; Van Dijk & Labuschagne, 2016).

4.5.1 Origins of Neethling’s whole brain eight-dimensional model

Roger Sperry received the Nobel Prize in Physiology in 1981 for his discoveries relating to the “functional specialisation of the cerebral hemispheres” (Todman, 2008). Sperry successfully performed a split-brain operation on a patient suffering from severe epilepsy. Such operations were consequently performed on numerous other patients. This operation made it possible, for the first time, to study the separate functions of the two brain hemispheres. Sperry discovered that each hemisphere had its own specialist functions. This confirms a hypothesis that had existed for many years. He consequently declared that each disconnected hemisphere appeared to have a mind of its own.

Ned Herrmann (1981) developed the first four-brain quadrant instrument. He based his work on Sperry's split-brain studies and Paul McLean's triune brain model. This led to a combination theory, founded on a metaphorical four-quadrant model. With the work of Paul Torrance (dubbed the Mr Creativity of the 20th century) as a basis, it was determined that left and right brain processes can be further divided into two definitive categories. This effectively separates the brain into four quadrants, two on the left (L1 and L2), and two on the right (R1 and R2). Both Herrmann and Neethling developed instruments to identify and measure thinking preferences.

In 2005, Neethling developed the eight-dimension instrument dividing each quadrant into two distinct categories and advancing research to the next stage.
4.5.2 Neethling's whole brain eight-dimensional model preference measurement

Individuals’ thinking preferences are easy to spot in organisations once one fully understands Neethling’s whole brain eight-dimensional model. For accurate results, it is necessary to use the well-validated questionnaire that is available to determine a person’s thinking preferences.

The questionnaire consists of 30 items, with each question having four responses that are selected in order of personal preference. The eight-dimensional profile has a further set of 16 questions. It refines the original profile, offering greater detail. The profile includes a thorough explanation of one’s personal thinking preferences. The results are mapped onto the eight-dimensional brain profile, showing one’s thinking preferences in the four quadrants.

Every individual achieves the same score of 300, but a specific individual’s scores are allocated to the different quadrants, depending on his or her thinking preferences, as well as giving a report covering general information on the different quadrants, candidate-specific information, advise on individual thinking preferences, leadership strengths, decision making, interpersonal strengths, team-building skills and areas for self-assessment relating to the profile.

The scores are characterised as follows:
- 95+ very high preference
- 80–94 high preference
- 65–79 average preference
- 50–64 low preference
- 50- very low preference

An individual's profile is always assessed in categories and not according to exact scores.

4.5.3 Components of the model

To achieve success, whole brain thinking assists people and organisations to move beyond traditional approaches. Using the whole brain methodology, organisations
and their employees are better positioned to comprehend, predict and probably expand the outcomes and overall results of the organisation (Neethling, 2005).

Neethling (2005) went further and divided each brain quadrant into two dimensions per quadrant, which ultimately resulted in an eight-dimensional brain profile, as follows:

L1 quadrant: realist and the analyst
L2 quadrant: stalwart and the organiser
R2 quadrant: socialiser/networker and the empathiser
R1 quadrant: strategist and the fantasiser/imaginer

Figure 4.5. Example of an individual’s whole brain eight-dimensional profile
Figure 4.5 shows that this individual’s two dominant brain quadrants are R2 and L2 which means that this individual is people-oriented and have the ability to read people’s body language and situations. This individual also enjoys organising, thinking about the details and keeping track of essential information. An average preference for factual accuracy exists and he / she struggle to be a conceptual thinker as he / she prefers to think about the details.

The actions of an individual are determined by which brain quadrant is dominant. This clarifies why thinking, learning, communication and decision-making preferences differ among people.

Neethling (2005) suggests that although it may be tempting to favour one type of individual over others, to improve the success of an organisation, it is best to put the organisation’s “whole brain” to work. What is significant about whole brain thinking in business is that organisations who put it into action, could possibly optimise organisational performance. If this is true for organisations, it could be argued that Neethling’s thinking style preferences could be just as beneficial for teams working in organisations, which corresponds with the focus of the research.

The following figure reflects the four quadrants, their subdivisions and descriptions of thinking preferences.

**4.5.3.1 The L1 quadrant (upper left)**

The thinking preferences normally associated with the L1 quadrant of the brain model are the following (Cetin, 2015; Dotson, 2015; Geyser, 2000; Herbst & Maree, 2008; Herrmann, 1996; Neethling, 2005; Nieuwenhuizen & Groenewald, 2006; Van Dijk & Labuschagne, 2016):

- Enjoys working with facts and numbers.
- Deals with facts and issues in a precise and exact way.
- Approaches problems in a logical and rational way.
- Is interested in technical aspects.
- Regards performance as important.
Hence individuals with a strong L1 preference approach problem solving in a logical way. They tend to be precise, give consideration to financial aspects and tend to express little emotion. Factual accuracy and the evaluation facts are of importance to these individuals (Cetin, 2015; Dotson, 2015; Geyser, 2000; Herbst & Maree, 2008; Herrmann, 1996; Neethling, 2005; Nieuwenhuizen & Groenewald, 2006; Van Dijk & Labuschagne, 2016).

4.5.3.2 The L2 quadrant (lower left)

The thinking processes normally associated with the lower left quadrant of the brain model is the following:

- Prefers traditional thinking.
- Enjoys work involving detail.
- Prefers a stable and reliable environment.
- Comfortable with standard procedures.
- Prefers security and safekeeping above risk-taking.
- Prefers facts to be arranged sequentially and chronologically.
- Focuses on the task at hand to ensure that it is completed on time.
- Enjoys practical aspects.

Individuals with strong L2 preferences prefer to organise and keep track of essential information. They ensure the timely implementation of projects, maintaining a firm grip on financial matters and giving priority to security (Cetin, 2015; Dotson, 2015; Geyser, 2000; Herbst & Maree, 2008; Herrmann, 1996; Neethling, 2005; Nieuwenhuizen & Groenewald, 2006; Van Dijk & Labuschagne, 2016).

4.5.3.3 The R1 quadrant (upper right)

The thinking processes normally associated with the top right quadrant of the brain is the following:

- Tend to be conceptual thinkers and not think about the details.
- Enjoy change and are willing to try new things.
- Enjoy being busy with several things at the same time.
• Possess good imagination.
• Enjoy challenges.
• Have a “gut feel” for new ideas.
• Ideas can be rearranged and put together into a new whole.
• Things are not always done in the same way.
• Tend to relate the present to the future.

Individuals with a strong R1 preference tend to focus on the big picture rather than on the detail. They can recognise hidden possibilities, do not always play according to the rules and tend to act on gut feel rather than logic when solving problems (Cetin, 2015; Dotson, 2015; Geyser, 2000; Herbst & Maree, 2008; Herrmann, 1996; Neethling, 2005; Nieuwenhuizen & Groenewald, 2006; Van Dijk & Labuschagne, 2016).

4.5.3.4 The R2 quadrant (lower right)

The thinking processes normally associated with the lower right quadrant of the brain is the following:
• Facts are experienced in an emotional way.
• Have an intuitive and understanding approach to other people.
• Communication tends to be expressive and nonverbal.
• Empathy is felt towards others.
• Problem solving seems to be a feeling process not a logical one.
• Enthusiasm is shown when new ideas are generated.

Individuals with strong R2 preferences have a “feel” for people and situations. There is an ability to read other’s body language and an enjoyment of social interaction, be it one on one or in a group (Cetin, 2015; Dotson, 2015; Geyser, 2000; Herbst & Maree, 2008; Herrmann, 1996; Neethling, 2005; Nieuwenhuizen & Groenewald, 2006; Van Dijk & Labuschagne, 2016).
4.5.4 Advantages of whole brain thinking

Neethling (2005) identified numerous advantages of whole brain thinking, including the following:

- Understanding their personal thinking preferences allows and enables people to optimise their ability to adapt their thinking, decision-making or communication style to any given situation.
- It clarifies why communication with certain people seems easier than with others.
- Whole brain profiling can be an excellent tool for assisting organisations to achieve bottom-line outcomes.
- It reveals what people learn best, and focuses their attention on what motivates them.

From the above it can be concluded that Neethling’s thinking style preferences can contribute to the support of both internal and external team processes, which could lead to the enhancement of overall team performance.

4.5.5 Generic truths pertaining to the above discussed models

The above models of Alessandra and O’Connor (1996), Belbin (1993; 2000), Margerison and McCann (1990), McShane and Von Glinow (2003), Neethling’s (2005) whole brain eight-dimensional model, and Parker (2008), suggest a few generic truths:

- Individuals have different preferences, styles or behaviours.
- These preferences, styles or behaviours dictate a specific way of interacting with others.
- Individuals need to be flexible in fulfilling required roles as appropriate to the task demanded by the situation, and not be restricted by their personality attributes or preferences.
- Understanding the preferences, styles or behaviour of others and altering one’s own accordingly, optimises one’s success as a team player and communicator.
4.6 CONCLUSION

Based on the discussion in this chapter, it is evident that teams play a crucial role and can assist with the problems and challenges faced by South African organisations. Any attempt to improve teamwork through new approaches, such as Neethling’s thinking style preferences, could add value to team performance and ultimately organisational success. Although numerous studies were found on personality and mental model constructs, no research on the role of Neethling’s thinking style preferences in improving team performance in organisations could be found in the literature – hence the researcher’s belief that this study could make a substantial contribution to the field of study.

Chapter 5 deals with the research design and methodology of the study.
CHAPTER 5

RESEARCH METHODOLOGY

5.1 INTRODUCTION

A particular research design is determined by the aim of the research as well as the research question. The methodology in this research study relates to the approach followed, while the methods refer to the research tools used in it.

This research was conducted in the Finance and Insurance Department (F&I department) of a sales-driven organisation in South Africa. Focus group interviews were conducted with employees who had undergone training in Neethling’s thinking style preferences, and in-depth individual interviews were conducted with regional managers.

The researcher decided to also conduct in-depth individual interviews with regional managers so that the managers would feel more comfortable divulging controversial information that was unknown to the researcher during an individual interview session, instead of sharing the information in a focus group interview among employees who might report directly to the regional managers.

Focus group interviews were conducted in order to encourage participants to make their perceptions, reasons, views and motives known through group interaction (Kitthananan, [s.a.]). The dialogic nature of focus group interviews makes it possible to explore multiple meanings that are created by the participants as they share their social experiences (Breen, 2006; Goss, 1996).

Since the essence of the study was to explore the perceptions of employees’ team performance related to Neethling’s thinking style preferences, a qualitative approach was used. Guiding and probing questions were asked to gain depth and insight into employees’ and managers’ perceptions. This is a grounded theory design, incorporating semi-structured in-depth interviews and focus group interviews.
In previous chapters, the background and literature review on the research were provided. In this chapter, the researcher focuses on providing an overview of the research process and a description of the research design, population, sampling, data collection and analysis, trustworthiness, ethical considerations and reporting.

5.2 SUMMARY OF THE RESEARCH PROCESS

Research methodology describes and deliberates the reasoning behind research techniques and methods (Welman, Kruger, & Mitchell, 2005). Table 5.1 depicts the research process applied in this study.

Table 5.1
Research Process Applied in the Study

<table>
<thead>
<tr>
<th>Research question</th>
<th>Selection of sample</th>
<th>Data collection</th>
<th>Data analysis</th>
<th>Findings/conclusions</th>
</tr>
</thead>
<tbody>
<tr>
<td>What are the perceptions of employees’ team performance related to the influence of Neethling’s thinking style preferences in an organisation in South Africa?</td>
<td>Participants who had undergone three or more training sessions in Neethling’s thinking style preferences and working in the F&amp;I department in a sales-driven organisation. Purposive, voluntary and nonprobability methods were used.</td>
<td>Semi-structured in-depth individual interviews and focus group interviews were conducted. Four main questions were asked and the narratives were interrupted to probe for further information when necessary.</td>
<td>The data was analysed by using Tesch’s (1990) qualitative data analysis method.</td>
<td>The themes and subthemes that emerged from the data were integrated and discussed in a qualitative reporting style. Verbatim responses of the participants were provided to illustrate the results.</td>
</tr>
</tbody>
</table>
5.3 RESEARCH METHODOLOGY

The purpose of this study was to explore the perceptions of participants’ team performance based on the application of Neethling’s thinking style preferences.

5.4 RESEARCH DESIGN

A research design is a plan that the researcher uses to collect data/information from participants (Welman et al., 2005). When selecting a research design, the research questions focus the study and give direction on how to conduct it (Maxwell, 2009; Terre Blanche et al., 2006).

5.4.1 Qualitative research

Qualitative research is a search for people’s truths. Polit and Beck (2004, p. 763) define qualitative research as “the investigation of phenomena, typically in an in-depth and holistic fashion, through the collection of rich narrative materials using a flexible research design”. According to Maree et al., (2012), qualitative research is intended to develop an understanding of the study by focusing on individuals and how they perceive the world through their experiences (Polkinghorne, 2005; Terre Blanche et al., 2006).

Understanding individuals’ truths and realities can lead to an attempt to understand behaviour. No single universal truth exists in a qualitative world (Morrison, Haley, Sheehan, & Taylor, 2012).

In qualitative research, the sample is usually small in scale and selected on the basis of specific criteria. Close contact between the researcher and participants is required (Ritchie & Lewis, 2003). The researcher tries to comprehend participant experiences through maximum involvement (Polit & Hungler, 1993). Detailed data and comprehensive analysis produce detailed explanations and descriptions (Hoepfl, 1997; Miles & Huberman, 1994; Ritchie & Lewis, 2003).
In this study, the researcher used in-depth individual and focus group interviews, asking semi-structured, open-ended, explanatory questions to participants regarding their perceptions of team performance related to Neethling's thinking style preferences.

5.4.2 Assumptions of qualitative research

The qualitative research paradigm assumptions used in this research were based on the following (Fouché, & Delport, 2011; Joubert, 2012; Struwig & Stead, 2011):

- People experience life differently and uniquely.
- Interaction and observation are required by the researcher to explore the lived experiences and perceptions of participants.
- Since the researcher is the primary instrument of the research, objectivity difficult. For this reason, bias is recognised.
- The employees’ and managers’ experiences are derived from the data analysis (Babbie, 2008; Lobiondo-Wood & Haber, 1994; Merriam, 2009).

5.4.3 Advantages and disadvantages of qualitative research

According to Fouché and Delport, (2011), qualitative research relies on understanding rather than explanation. In qualitative research, a dialogue exists between the researcher and the participants. It is a more cost-effective research method with a holistic approach in that participants are observed while they interact within their environment. The following are advantages of qualitative research (Baily, 1982; Flick, 2009):

- It provides insight and a description of people’s personal experiences (Johnson & Christensen, 2012; Maxwell, 2013).
- It opens new dimensions for other and further studies through close interactions with participants (Flick, 2009; Opdenakker, 2006).
- The interview process in qualitative research is flexible, because the researcher can decide what questions are appropriate.
• A controlled environment is created with qualitative research improving privacy.
• A qualitative research approach produces rich and valuable data.

Qualitative research is not without its limitations. The following are disadvantages of qualitative research that may surface (Flick, 2009):

• It can be extremely time consuming.
• The researcher’s personal views and biases may influence the data (Johnson & Christensen, 2012).
• The generalisation of a few individuals for a sample to represent the whole population can be a limitation to the study.
• There is sometimes little or no comparable literature or documentation on a topic being researched. Also, the research might lose objectivity.

Conducting qualitative research is laborious and time consuming. The primary risk of qualitative research approaches is that objectivity by the researcher may be lost (McNeill, 1990; Opdenakker, 2006). In the current study, the researcher was mindful of the effect the research may have had on her, and vice versa.

The researcher attempted to remove her personal bias and only focused on the perceptions and views of the participants by means of bracketing. Bracketing refers to the process where the researcher identifies and holds back any preconceived beliefs and opinions regarding the phenomenon under investigation. Researcher bias was also reduced in this study by implementing trustworthiness measurements (see section 5.7) and by using participants not familiar to her who voluntarily participated in the interviews. The participants were nominated by the contact person to ensure that the researcher had the best possible candidates to answer the research questions. The researcher also involved her supervisor in the study with the analysis of the data gathered to eradicate any biased views, statements and recommendations.
5.4.4 Rationale for using qualitative research

This study was conducted using a qualitative approach making use of in-depth individual interviews with managers and focus group interviews with employees in the F&I department of a sales-driven organisation.

When individuals’ experiences are given meaning and interpreted, qualitative research methods are used, which would be almost impossible to do if other research methods were used (Babbie, 2008; Rice & Ezzy, 2002).

Qualitative research was deemed the most suitable method for this study, because the research focused on the views and perceptions of the employees and managers and aimed to interpret them to gain a better understanding of the research. Exploration was needed as no other research had previously been conducted to enable the researcher to follow a quantitative research approach. The data obtained was reliable because the researcher’s own perceived views and ideas did not influence the study (Babbie, 2008; Merriam, 2009; Rice & Ezzy, 2002).

Since the researcher believed that the phenomenon under investigation consisted of the perceptions of employees’ team performance related to Neethling’s thinking style preferences, she used interviewing as a method to collect data (as suggested by Terre Blanche et al., (2006)).

When choosing a specific research method, it is important to consider the research questions, the researcher’s personal experience and the stakeholder to whom the findings are reported (Cresswell, 2003). To answer the research questions, it is necessary to obtain a detailed description of the experiences of participants, in this case, employees and managers. The researcher’s personal training and experience in Neethling’s thinking style preferences enabled her to interact with the participants in obtaining in-depth knowledge about the phenomenon. The stakeholders to whom these findings would be of interest are organisations using Neethling’s thinking style preferences and other researchers who may want to contribute to the field of study.
As previously stated, no research on the role of Neethling’s thinking style preferences in improving team performance in organisations could be found in South Africa. The researcher therefore believed that this study would make a substantial contribution to the field of study.

Taking into account all these issues, the researcher chose a qualitative research design as the most appropriate approach to gather information and/or new perspectives on employees’ perceptions of team performance related to Neethling’s thinking style preferences.

5.5 RESEARCH APPROACH

The researcher decided to use a grounded, interpretivist qualitative research approach to represent what is intended by the participants. The grounded theory, interpretivist design and content analysis are described in more detail below.

5.5.1 Grounded theory design

Grounded theory is an interpretive qualitative research design that enables researchers to make discoveries in the absence of sufficient literature on the phenomenon (Charmaz, 2006; Jones, Levy, 2003; Kriflik & Zanko, 2005). Grounded theory is therefore used either when theories about the research topic do not exist (Ferguson, Ferguson, & Taylor, 1992) or when the theories that are currently documented in the literature fail to adequately explain the research topic (Leedy & Ormrod, 2005). In this research study, grounded theory was used because of the limitation in prior knowledge (Charmaz, 2006; Jones et al., 2005).

Grounded theory design requires interaction and dialogue between the participants and the researcher in order to create meaning of the phenomenon being studied (Charmaz, 2006; Goulding, 1999). To understand the phenomenon, the researcher should therefore describe the context in which meaning is created (Andrade, 2009). In this study, grounded theory was also used because it was deemed appropriate for the specific research conditions.
The goals of grounded theory are to collect and analyse data, after which assumptions can be grounded on the data (Brink et al., 2006). In this study, data were collected from the views and perceptions of regional managers and employees working in the F&I department of a sales-driven organisation. When the qualitative method is used, the data collection and analysis process in this study occur simultaneously. Constant associations take place because events are compared with other events, constructs with constructs and categories with categories. Noteworthy events were highlighted and codes assigned (Brink et al., 2006).

Promoters of grounded theory argue that inductive discoveries of data relationships and data collection should proceed systematically (Bitsch, 2005) to theoretical analysis (Daengbuppha, Hemmington, & Wilkes, 2006) in order to develop data categories (Pandit, 1996). The researcher iteratively collected and analysed the data as suggested by Bitsch (2005) in order to examine the causal factors and patterns of the participants' perceptions of team performance related to Neethling’s thinking style preferences (Daengbuppha et al., 2006).

Because grounded theory relates to daily situations and explains the creation of meaning in theoretical terms, it is therefore useful in practice (Merriam, 1998; Merriam, 2009). In this study, the grounded theory design allowed the researcher to study the participants' perceptions and views on the phenomenon, and this improved the validity of the research findings (Hartley & Muhit, 2003; Merriam, 2009).

### 5.5.2 Interpretivist design

Qualitative research involves dialogue between the researcher and the participants. Many responses are produced from dialogue with multiple meanings, and the patterns of meanings need to be identified (Daengbuppha et al., 2006) and interpreted (Snape & Spencer, 2005) in relation to the phenomenon of the research, in this instance, to explore perceptions of employees' team performance related to Neethling’s thinking style preferences. It was therefore deemed appropriate to adopt an interpretivist design to explain the multiple perceptions of the participants (Andrade, 2009; Merriam, 1998; 2009; Williams, 1998).
An inductive strategy is used to identify patterns of responses and to interpret the multiplicity of the participants’ perceptions, when, as in the case the perceptions of employees’ team performance related to Neethling’s thinking style preferences in a sales-driven organisation, limited literature exists to provide a framework for understanding the topic of the study (Merriam, 1998). If no previous literature exists on the phenomenon of the study, the interpretivist design relies on fieldwork that identifies the participants’ responses and perceptions of the phenomenon (Ferguson et al., 1992; Merriam 2009).

5.5.3 Content analysis

Content analysis involves gathering and analysing text by creating codes, phrases or words to form an understanding of the study (Babbie, 2007; Struwig & Stead, 2011; Welman et al., 2005).

The researcher’s experience, personality and the nature of the circumstances determine the exact method. The data in this research were categorised and coded to achieve more rigorous and valid content analysis.

5.6 RESEARCH METHOD

The subsections below deal with the population, sampling method, data collection, recording and transcription of data and data analysis of this research study.

5.6.1 Population

A population can be defined as that which is studied, whether it is an object that comprises individuals, groups, organisations and so forth, or the environments to which they are exposed to (Welman, Kruger, & Mitchell, 2009).

As stated previously, the population of this study was the managers and employees working in the F&I department of a sales-driven organisation in South Africa who had undergone training in Neethling’s thinking style preferences. People who had
undergone three or more training sessions in Neethling’s thinking style preferences were targeted.

5.6.2 Sampling method

The sampling method refers to the process used in selecting a number of participants from the population who represent the entire population (Babbie, 2008; Flick, 2009; Maree et al., 2012; Polit & Hungler, 1993). The criteria used to select the participants are explained in section 5.6.3 below.

Nonprobability, purposive and snowballing sampling were used in this study.

According to Maree et al., (2012, p. 79) purposive sampling is when “participants are selected because of some defining characteristic that makes them the holders of the data needed for the study”. The sample criteria in this research study are discussed in the next section. Participants had to have certain characteristics before they could participate in this study, making the sampling process purposive.

Snowballing sampling involves a process of slowly gathering a satisfactory sample through references (Terre Blanche et al., 2006). The snowballing effect occurred in this study because some of the individuals suggested other individuals who could participate. The sample varied with regard to age and gender, which enabled the researcher to compare the responses from the participants across a variety of social settings.

5.6.3 Sampling criteria

The criteria to select participants for this study were that they all had to

- have undergone three or more training sessions in Neethling’s thinking style preferences;
- be employed in the sales-driven company in the Gauteng area;
- be working in the F&I department; and
- be willing to be interviewed in either a focus group or individual interview.
5.6.4 The sample

Since the aim of qualitative research is not statistical analysis, control or generalisation and a relatively small sample size is needed (Flick, 2009; Streubert & Carpenter, 1995), it was not necessary for the researcher to determine beforehand the exact number of employees and regional managers to be interviewed. A broad target of four focus group and five in-depth interviews was envisaged. In the end, six in-depth individual interviews were held with regional managers and two focus group interviews were conducted. Focus group 1 consisted of seven participants and focus group 2 consisted of six participants. A total of 19 participants were interviewed.

The sample size required for this research depended on the data gathering process. When data saturation is reached, the sample size is adequate (Brink et al., 2006). In this study, the researcher experienced data saturation after the sixth in-depth individual interview and second focus group session. No new information was obtained during the last focus group interview with the employees and the sixth individual interview with managers.

5.6.5 Biographical characteristics of participants

The characteristics of the total number of participants who formed part of the study are presented in table 5.2 below.

Table 5.2.
Biographical Characteristics of All Participants

<table>
<thead>
<tr>
<th>Participant</th>
<th>Race</th>
<th>Age</th>
<th>Gender</th>
<th>Nature of job</th>
<th>Time-lapsed since training</th>
<th>Neethling's training sessions</th>
<th>Brain profiles</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>White</td>
<td>46 to 55</td>
<td>Male</td>
<td>Management</td>
<td>1 to 6 months</td>
<td>5 sessions</td>
<td>L2 &amp; R1</td>
</tr>
<tr>
<td>2</td>
<td>Coloured</td>
<td>46 to 55</td>
<td>Male</td>
<td>Management</td>
<td>1 to 6 months</td>
<td>3 sessions</td>
<td>L1 &amp; L2</td>
</tr>
<tr>
<td>3</td>
<td>White</td>
<td>46 to 55</td>
<td>Male</td>
<td>Management</td>
<td>1 to 6 months</td>
<td>4 sessions</td>
<td>R1 &amp; R2</td>
</tr>
<tr>
<td>4</td>
<td>White</td>
<td>46 to 55</td>
<td>Male</td>
<td>Management</td>
<td>1 to 6 months</td>
<td>4 sessions</td>
<td>L1 &amp; L2</td>
</tr>
<tr>
<td>5</td>
<td>White</td>
<td>31 to 45</td>
<td>Female</td>
<td>Management</td>
<td>1 to 6 months</td>
<td>4 sessions</td>
<td>L1 &amp; L2</td>
</tr>
<tr>
<td>6</td>
<td>White</td>
<td>46 to 55</td>
<td>Male</td>
<td>Management</td>
<td>1 to 6 months</td>
<td>5 sessions</td>
<td>L1 &amp; L2</td>
</tr>
</tbody>
</table>
5.6.6 Data collection process

A prearranged time and place were organised with the participants to conduct the interviews. The six individual interviews were conducted in the boardroom of the organisation and the focus group interviews were conducted at the training centre where participants attend training sessions. The interviews took approximately one hour.

The researcher and the contact person were in contact via e-mail and the names of the participants were given to the researcher. The researcher explained that all interviews were voluntary and that the participant’s details would be kept confidential. She gave the 19 participants consent forms to complete before the individual and focus group interviews were conducted. Before starting the individual and focus group interviews, the researcher first explained the aim of the research.

The researcher recorded all the individual and focus group interviews. Field notes and observation notes were made during the individual and focus group interviews.
5.6.6.1 The researcher as instrument

The researcher was the instrument used to gather information through individual and focus group interviews (Welman et al., 2005). Open-ended and probing questions were used during the interviews. The researcher conducted the interviews and made field and observation notes.

The interviewer (researcher) and interviewee (participant) participated in two-way communication. The role of the researcher was to collect data from the participants by asking questions. The researcher had to listen and observe and allow the participants to do the talking.

5.6.6.2 Schedule of questions

The researcher had preformulated open-ended questions that were used in the semi-structured individual and focus group interviews to gather information on the views and beliefs of the participants, which enabled her to obtain more information on the research topic. The open-ended questions asked in this study are set out in section 5.6.6.4 below, and a copy of the schedule of questions is attached to this research study as annexure B. Open-ended questions gave the participants freedom to answer what they actually thought or experienced and provided the researcher with more information on the research topic (Struwig & Stead, 2011).

5.6.6.3 Focus group interviews

The main aim of focus group interviews is to understand and describe the views and perceptions of a sample in order to gain an understanding of a certain phenomenon from the participants’ point of view (Acocella, 2012). The researcher felt that focus group interviews with participants would be a useful research tool in this study, because the participants were unknown to her and they would put forward their own views and perceptions. According to Rice and Ezzy (2002) and Stewart, Shamdasani, and Rook (2007), when the researcher wishes to describe and explore the participants’ knowledge and experience in a study, a focus group interview is a useful tool.
The grounded theory approach in qualitative research strategies uses one or more techniques to gather empirical data (Bitsch, 2005). The literature suggests that a focus group interview is a technique that is commonly used during qualitative studies (Levy, 2003). Focus group interviews can either serve an exploratory purpose (to identify constructs prior to quantitative study) or a phenomenological purpose (to access participants’ everyday explanations or common-sense conceptions of the phenomenon) (McLafferty, 2004).

As stated previously, focus group interviews were deemed to be the most appropriate for this study. The interviewing technique used in focus group interviews is open-ended questions, with the intention of exploring, understanding and explaining the nature of a phenomenon (Bing, 2007).

The advantages of a focus group interview and why this data gathering technique was selected for this research are as follows:

- Because interviews are face to face, the focus group interview enables the researcher to share time and place with participants to ensure the production of sensitive and humane data that reflect the interests of both parties (Meho, 2006; Seymour, 2001).
- Focus group interviews stimulate participants to make their perceptions, reasons, views and motives known through group interaction (Kitthananan, [s.a.]). The dialogic nature of focus group interviews makes it possible to explore multiple meanings that are created by the participants as they share their social experiences (Breen, 2006; Goss, 1996).
- During focus group interviews, participants are afforded the opportunity to convey their own interpretations and meanings by reprocessing their behaviours relating to the research topic investigation (Breen, 2006; Kitthananan, [s.a.]).
- Focus group interviews are cost-effective and flexible methods for gathering the responses of non-random samples of participants who fit the selection criteria (Sofaer, 2002; Stewart et al., 2007) in their natural setting (Grudens-Schuck, Allen, & Larson, 2004).
Because focus group interviews make it possible to co-construct the meaning of the phenomena and field texts in a naturalistic environment, this type of interview complements the interpretivist research design. However, it is essential to handle the data cautiously because researcher assumptions and purposive sampling tend to influence the quality of data analysis during focus group interviews (Smith & Cilliers, 2006). In this study, these issues were regarded as contextual (Shar & Corley, 2006) and were addressed through measures of trustworthiness (see section 5.7).

A maximum of one hour was allocated for each focus group interview to optimise the use of theoretical sampling principles to ensure that the participants did not become irritated and to keep them focused. Focus group interviews should be administered in private, safe and accessible venues (Greacen Associates, 2007; Rabiee, 2004). The researcher therefore asked the participants to help identify accessible venues where the focus group interviews could take place. At the end of every focus group interview, the participants were debriefed by reflecting on their impressions of the session, which reduced researcher bias.

### 5.6.6.4 Individual interviews

Individuals tend to feel more comfortable revealing controversial information that is unknown to the researcher during an individual interview session, instead of sharing the information in a focus group interview among other participants from the department. Kaplowitz and Hoehn (2001) and Flick (2009) add that neither the individual interviews nor the focus group interviews are a better data collection method than the other. These two methods should be combined when collecting qualitative data (Lambert & Loiselle, 2008).

A suitable environment in which the individual interviews could be conducted was arranged to accommodate the managers and to ensure that they were comfortable and there was privacy. All the interviews were conducted at the organisation in a private boardroom with limited or no disturbances. The same questions that were asked during the focus group interviews were asked at the individual interviews.
Each manager signed the informed consent. Before starting the interview, the researcher explained the reason for the interview and why tape recordings were being used. An approximate duration of the interviews was discussed to ensure that the managers did not feel pressured for time. The length of the interviews was limited to one hour to ensure that the managers did not become irritated and could stay focused if the interviews took too long.

During the data collection process, the researcher fulfilled the role of listener and observer, with limited participation. This means that she only asked questions and probing questions, until the questions had been properly answered. At the end of the interview, the researcher reconfirmed and reflected the findings obtained during the interview. The data that had been collected were reflected and the managers confirmed these interpretations.

The researcher had to be an active listener. She had to avoid prejudice and limit the number of interruptions. It was necessary to constantly reassess the information and the researcher was aware of her own preconceived views and ideas (Smith, 2012).

During the interview process, the researcher asked the following main questions:

(1) In your words, what are Neethling’s thinking style preferences?

(2) In your experience, did the application of the Neethling’s thinking style preferences knowledge, lead to any advantages with regard to your team’s performance?

(3) In your experience, did the application of the Neethling’s thinking style preferences knowledge, lead to any disadvantages with regard to your team’s performance?

(4) In your opinion, would you say that the Neethling thinking style preferences instrument is a viable tool for enhancing team performance?
The researcher audio recorded the individual interviews. These recordings were then transcribed verbatim. The interviews were numbered by assigning a number to each participant, for example, participant 1, participant 2 and so forth, and they were typed as follows: The researcher asked each participant the same questions. Data was collected by means of individual and focus group interviews. All interviews were recorded digitally. The researcher made written observation notes during the individual and focus group interviews.

Semi-structured in-depth interviews were held with regional managers, and focus group interviews were held with employees (non-managers). Four main questions were asked. The researcher interviewed six regional managers and 13 employees (non-managers). Data saturation was reached after six individual interviews and two focus group interviews, as the "account was richly fed by the material that has been collected" (Terre Blanche et al., 2006, p. 372) and no new themes emerged.

From the above, it is clear that the collection of data is a vital part of the research process. Recording of data is discussed next.

5.6.7 Recording of data

The researcher digitally recorded the individual and focus group interviews using various instruments and had the informed consent of the participants. During the interviews, the recorder was placed between the interviewer and the participants. Bracketing was also done in this study where the researcher attempted to remove her personal bias and only focused on the experiences and perceptions of the participants (Denzin & Lincoln, 2000).

When each interview is audio taped, it produces a substantial amount of data that enables a specific focus on the particular words used by the participants or the hermeneutics (Douglas, 2003; Rapley, 2007).
5.6.8 Transcription of data

The audio recordings of the individual and focus group interviews were transcribed verbatim. During the focus group interviews the researcher gave each participant a number, and he or she had to first say his or her number and then answer the question. This procedure made transcription of the individual and focus group interviews much easier, because the researcher was aware of which participant had said what during the focus group interviews.

The individual interviews were typed as follows:

<table>
<thead>
<tr>
<th>INDIVIDUAL INTERVIEW WITH PARTICIPANT 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>MA 1</td>
</tr>
<tr>
<td>MA 2</td>
</tr>
<tr>
<td>MA 3</td>
</tr>
<tr>
<td>MA 4</td>
</tr>
<tr>
<td>MA 5</td>
</tr>
<tr>
<td>MA 6</td>
</tr>
<tr>
<td>MA 7</td>
</tr>
<tr>
<td>MA 8</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>INDIVIDUAL INTERVIEW WITH PARTICIPANT 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>MB 1</td>
</tr>
<tr>
<td>MB 2</td>
</tr>
<tr>
<td>MB 3</td>
</tr>
<tr>
<td>MB 4</td>
</tr>
<tr>
<td>MB 5</td>
</tr>
<tr>
<td>MB 6</td>
</tr>
<tr>
<td>MB 7</td>
</tr>
<tr>
<td>MB 8</td>
</tr>
</tbody>
</table>
**INDIVIDUAL INTERVIEW WITH PARTICIPANT 3**

**MC 1** Researcher: In your words, what are the Neethling thinking style preferences?
**MC 2** Participant 3: What are Neethling’s thinking-style preferences?
**MC 3** Researcher: To you, what does it mean to you? What do you understand under that?
**MC 4** Participant 3: Oh, it means I understand myself better and I can possibly understand other people better by looking at their actions and the way they, know their actions and their interactions.
**MC 9** Researcher: Ok, when you say interactions, do you mean …

**INDIVIDUAL INTERVIEW WITH PARTICIPANT 4**

**MD 1** Researcher: In your words, what are Neethling’s thinking style preferences? What do they mean to you?
**MD 2** Participant 4: It's all about understanding other people. That is how I understand it. Understanding who they are, how they react, how they think.
**MD 3** Researcher: In your experience, when applying the knowledge gained by Neethling’s thinking style preferences training, what impact, if any did it have on your team’s performance. Please specify.
**MD 4** Participant 4: That has had a very big impact. With what we do, you’ll be dealing with different personalities all the time and you have left brainers, rights brainers, so there’s a huge impact. If you understand who you’re speaking to, who you’re dealing with, it helps a hell of a lot. So, it’s huge.

**INDIVIDUAL INTERVIEW WITH PARTICIPANT 5**

**ME 1** Researcher: In your words, what are Neethling’s thinking style preferences?
**ME 2** Participant 5: Preferences?
**ME 3** Researcher: Yes, what does it mean to you? Neethling’s thinking style preferences.
**ME 4** Participant 5: Well I never knew that I was a left brainer, there I got to find out I’m a left brainer and what the different quadrants mean and how to use it to your advantage to be able to communicate better with people also knowing how to deal with staff. Us as a team, we’re a lot of left brainers so it actually opened our eyes and we realised you know, you know what makes this person tick, so you’ll keep pressing that particular button. So, it’s all about bettering yourself, knowing yourself and how to communicate with other people.
**ME 11** Researcher: Can you please give me an example, just what is the L2, left brain, you say L2, left brain, just quickly what does that entail?
INDIVIDUAL INTERVIEW WITH PARTICIPANT 6

| MF 1 | Researcher: In your words, what are Neethling’s thinking style preferences? What does it mean to you? |
| MF 2 | |
| MF 3 | Participant 6: Well it’s the, Kobus Neethling is all about the dominance of the quadrants of the brain with the L1, L2, R1, R2. |
| MF 4 | |
| MF 5 | Researcher: Can you elaborate a little bit on L1, L2, R1, R2? |

Each typed line was numbered. For example, for manager 1 the numbering of lines started at MA, for manager 2 the numbering of lines started with MB, for manager 3 the numbering started at MC. The numbering in focus group 1, started at A1, while in focus group 2 it started at B1. This technique made data analysis much easier. Specific comments could then be found more easily when the researcher looked through the typed interviews (Welman et al., 2005).

The focus group interviews were typed as follows:

INTERVIEW WITH FOCUS GROUP 1

| A1 | Researcher: In your words, what are Neethling’s thinking style preferences? |
| A2 | |
| A3 | Participant 7: It's if you're left or right brain, there are L1, L2, R1 or R2 and then it is divided into different categories as well. |
| A4 | |
| A5 | Participant 8: t's the strengths of your thinking preferences, either it's a left brain, right brain and what quarter it falls into. |
| A6 | |
| A7 | Participant 9: It’s your preferences, it’s your weaknesses, it identifies your strong points, where you are strong and where you are weak. |

INTERVIEW WITH FOCUS GROUP 2

| B1 | Researcher: In your words, what are Neethling’s thinking style preferences? |
| B2 | |
| B3 | Participant 15: Preferences for left brain versus right brain. |
| B4 | Participant 16: Difference between front and back brain lobes. |
| B5 | Researcher: What does thinking preferences mean to you? |
| B6 | Participant 17: Different thinking methods. |
| B7 | Researcher: Give me an example of left brain thinking. |
| B8 | Participant 17: Task oriented – left brain, right brain people oriented |
5.6.9 Data analysis

Creswell (2007, p. 148) defines data analysis in qualitative research as “preparing and organising the data for analysis, then reducing the data into themes through a process of coding and condensing the codes, and finally representing the data in figures, tables or a discussion”.

After the interviews, the researcher compiled the data into meaningful write-ups. These write-ups were then analysed to interpret theories and make sense of the data (Henning, Van Rensburg, & Smit, 2004; Welman et al., 2009).

During the analysis phase, the researcher grouped the data into units and gave them coded themes, which was done manually. The researcher was able to make sense of the data by using thematic analysis (De Vos, Strydom, Fouché & Delport, 2013; Henning et al., 2004; Struwig & Stead, 2011).

The data analysis method proposed by Tesch (1990) was used in the data gathering phase. Tesch (1990) suggests the following steps:

1. The tape-recorded individual and focus group interviews with participants in the F&I department in a sales-driven organisation were transcribed. Notes were made on expressions witnessed.

2. The researcher selected the most interesting interview as a starting point to identify main codes.

3. A coding list was created by grouping similar topics together.

4. The researcher made use of themes and analysed the descriptive wording that occurred the most.

5. After a final decision was made on the abbreviation for the different themes, the codes were alphabetised.
The data for each theme was gathered and grouped.

The data was recorded and the findings reported.

The methods that Tesch (1990) proposed are thematic in nature, which is suitable within the grounded interpretivist theory, as the main purpose of themes is to provide structure to the experience.

5.7 TRUSTWORTHINESS

There is no set rule to establish trustworthiness, but according to Loseke (2013), it is sensible to establish the trustworthiness of the research. The quality of the research is subject to its trustworthiness (Fouché & De Vos, 2011).

In order to ensure trustworthiness in a qualitative research study, Fouché & De Vos, (2011) refer to four criteria, namely credibility, transferability, dependability and conformability. These criteria are explained in further detail below.

5.7.1 Credibility

Credibility means that the findings of the study are credible. This reflects the accurate truth of the research data and authenticates the subject and presentation of the research (Fouché & De Vos 2011).

Credibility was achieved in this study by gathering and analysing the data and comparing it with emerging categories until no new categories emerged. This process is known as theoretical sufficiency or saturation (Andrade, 2009).

The credibility of this research study was also improved through triangulation as the researcher used multiple sources (managers and employees) as well as different data gathering methods (individual as well as focus group interviews) (Rossmann & Rallis, 2011; Verma, 2003).
5.7.2 Transferability

Transferability involves the transfer of findings to other situations. When the credibility of research findings can be generalised to other studies transferability increases (Krefting, 1991; Polit & Hungler, 1995; Rossman & Rallis, 2011).

Transferability was ensured by the researcher by presenting the personal details of the participants in this study in table 5.2. According to Patton (2002), generalisation of data from one group to another is not appropriate in a qualitative study. However, the above information enables readers to make transferability judgements and to determine whether the findings in a study are relevant to their own personal circumstances.

5.7.3 Dependability

Dependability means that changes occur during the research process (Rossman, & Rallis, 2011). The researcher needs to adapt to the changes. In qualitative research, the social world is continuously changing and by anticipating the changes ensures that the research is reliable (Fouché & De Vos, 2011).

In quantitative research, repeatability is expected to happen, while in qualitative research, variability is expected to occur. Since numerous qualitative studies are altered to the research situation, no methodological descriptions exist. The explanation of various approaches provides information on how unique or repeatable the study is (Krefting, 1991). Because this study was qualitative research, the data gathering process, and analysis and interpretation of the data were described.

5.7.4 Confirmability

Confirmability occurs when the results of the research study are confirmed by other individuals. Several strategies are available to enhance confirmability. The process can be documented by checking and rechecking the gathering of the data (Rossman & Rallis, 2011).
The instruments used, detailed records, field notes and summaries must be kept in all qualitative studies to enable moderators to examine these records and reach similar conclusions (Krefting, 1991). The researcher will keep all records and field notes in safekeeping for 5 years.

5.8 ETHICAL CONSIDERATIONS

Ethical considerations relate to paying attention to the way in which the research is presented to potential participants, the possible impact of participating in the research, the effect of sampling strategies, engaging with the researcher and dissemination sessions (Barbour, 2008).

According to Babbie (2009), ethical considerations involve what is right and wrong in research. There must be an acceptable standard in qualitative research to which qualitative studies need to conform.

5.8.1 Participants’ right to privacy

Participants’ right to privacy involves keeping all data received from participants confidential and the personal information of participants safe with limited access (Fouché & De Vos, 2011). Participants also have the right to choose what personal information they wish to share and under what conditions (Burns & Grove, 2001; Rossman & Rallis, 2011).

The in-depth individual interviews with regional managers and focus group interviews with employees were conducted in private, and the data was only available to the researcher, which means that confidentiality was guaranteed. The data was stored at the researcher’s home on a laptop and external hard drive with a secure password and no one except for the researcher had access to the data. All the participants remained anonymous.
5.8.2 Participants’ right to fair treatment

The participants had the right to fair treatment which involved behaving appropriately and being respectful towards participants, their views and perspectives (Polit & Hungler, 1993). To ensure the participants’ right to fair treatment, they were protected by informed consent. During each interview, the researcher was dressed appropriately and each participant was greeted with respect.

5.8.3 Participants’ freedom from harm

No harm may be caused to any participant involved during the research. This harm includes physical or emotional harm. The researcher needed to take precautions and measures to ensure that the participants were not exposed to any form of discomfort, such as stress, fatigue and emotional harm (Whittaker, 2009; Babbie, 2009).

Owing to the fact that participation in this research study was voluntary, the researcher informed participants that they had the right to withdraw from the interviews at any time, if they felt uncomfortable, without any negative consequences. They were thus protected from any emotional harm (Barbour, 2008).

5.8.4 Participants’ freedom from exploitation

According to Babbie (2009) and Whittaker (2009), deception in research is unethical. Keeping information from and misleading participants are forms of deception in research.

The researcher was honest and clear from the first day of contact with participants on what was being researched and why. She stipulated the time required for interviews and the background on the questions to be asked. The researcher never forced any participant to take part in the research by using inappropriate behaviour. The participants were, as mentioned above, also informed that their participation was totally voluntary (Babbie, 2009; Baily, 1982; Whittaker, 2009).
5.8.5 Participants’ right to full disclosure

Participants’ right to full disclosure implies that all participants have the right to be fully informed about the purpose of the research study as well as access to and feedback on the research conducted (Whittaker, 2009; Polit & Hungler, 1993; Rossman & Rallis, 2011; Terre Blanche et al., 2006).

The researcher informed the participants that she was conducting this study to complete her MCom degree and that the information collected from them would be used in the study and form part of the results of the dissertation. The participants were also informed that the results might be published in an accredited journal.

5.8.6 Risk/benefit ratio

This ratio refers to the careful analysis of possible risks and benefits of a study. Should there be any risks identified in a study, they have to outweigh and justify the expected benefits of the study. The researcher should always attempt to minimise the risks and maximise the benefits (Burns & Grove, 2001).

The researcher informed the participants of the possible risks and benefits of the study. The benefits of this research study were that Neethling’s thinking style preferences can be used as a viable tool for enhancing team performance and the possibility of conducting further studies.

5.8.7 Informed consent

Participants in research must always take part voluntarily. The researcher explained to the participants that their involvement was purely voluntary and that they had the right to stop participation at any time they felt like it and ask questions at any time (Schurink, Fouché & De Vos, 2011).

The researcher provided clear information on the study, the interview process, the risks and benefits, and made it known that participation was purely voluntary and
that no participant would be coerced into participating in the research (Schurink et al., 2011; Terre Blanche et al., 2006).

Each participant received a consent form to sign, confirming that he or she understood what was expected (see annexure A). The background to the research was discussed with the participants and the purpose of the interviews outlined. Participants were thanked for their contributions and were informed of their right to access the information gathered (De Vos et al., 2013).

5.9 CONCLUSION

In this chapter, the qualitative research design applied in this study was discussed. The research methodology, trustworthiness and ethical considerations of the research findings were explained. The next chapter focuses on the characteristics of the sample, and the data, responses and comments of the participants.
CHAPTER 6

CHARACTERISTICS OF THE SAMPLE

6.1 INTRODUCTION

The biographical data and characteristics of the participants are presented and discussed separately from the research findings as dealt with in chapter 7, as the biographical data were extremely bulky, and this information merited a separate discussion from the themes that were identified in the data.

However, even though the characteristics of the participants are discussed in a separate chapter, the characteristics that may have impacted on the findings are taken into consideration and discussed where applicable.

The characteristics of the 19 participants were presented in table 5.2 in chapter 5. The graphical illustrations of the participants are presented in tables 6.1 to 6.28 below.

6.2 GRAPHICAL ILLUSTRATION OF THE PARTICIPANTS IN THE FOCUS GROUPS AND INDIVIDUAL INTERVIEWS

In order to facilitate perceptions of indicators that contribute to perceptions of employees' team performance related to Neethling's thinking style preferences, it was necessary to use a sample comprising both managers and employees for the research in order to obtain an awareness from different perspectives view. The researcher decided to conduct in-depth individual interviews with regional managers as she felt that the managers would feel more comfortable divulging controversial information that was unknown to the researcher during an individual interview session, instead of sharing the information in a focus group interview among employees who might report to them directly. The biographical information in the total sample, in both the focus groups and the individual interviews, is confirmed by
depicting it in the figures and tables that follow, before discussing the actual data analysis in the next chapter.

6.2.1 Total sample of the participants

The biographical characteristics of the total sample (13 participants in the focus groups and 6 individual interviews) are indicated in tables 6.1 to 6.7 below, followed by a discussion.

Table 6.1
*Frequency Distribution: Race Profile of the Total Sample of Participants*

<table>
<thead>
<tr>
<th>Race</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>5</td>
<td>26.3%</td>
</tr>
<tr>
<td>White</td>
<td>13</td>
<td>68.4%</td>
</tr>
<tr>
<td>Indian</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Coloured</td>
<td>1</td>
<td>5.3%</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>100%</td>
</tr>
</tbody>
</table>

According to table 6.1, the sample comprised 26.3% black participants, 68.4% white participants, 0% Indian participants and 5.3% coloured participants. These participants were identified by the researcher’s contact person and through the snowballing effect (Welman et al., 2005). The sales organisation has more white employees in the F&I department, which resulted in the large participation percentage rate for white participants. Most of the participants were from the black and white communities of the population because the major population groups in South Africa are blacks (80.7%), whites (8.1%), coloureds (8.8%) and Indians (2.5%) (Stats SA, 2016). Figure 6.1 provides a graphical illustration of the race distribution as presented in table 6.1.
Figure 6.1. The overall sample: Distribution by race

Table 6.2
Frequency Distribution: Age Profile of the Total Sample of Participants

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 to 30</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>31 to 45</td>
<td>12</td>
<td>63.1%</td>
</tr>
<tr>
<td>46 to 55</td>
<td>6</td>
<td>31.6%</td>
</tr>
<tr>
<td>Older than 55</td>
<td>1</td>
<td>5.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

According to table 6.2, none of the participants were between the ages of 18 and 30, 63.1% of participants in the sample were between the ages of 31 and 45 years, 31.6% were between the ages 46 and 55, and 5.3% were older than 55. Although there are people working in the organisation between the ages 18 to 30, there were no participants in the sample in that age category. The different ages of the participants gave a mix of young and old participants, which supports validity regarding experience and knowledge. Age was not expected to influence employees’ perceptions of team performance related to Neethling’s thinking style preferences because there is no age limit with regard to the application of the knowledge. Figure 6.2 provides a graphical illustration of the age difference of the participants, that is, a combination of young and old.
Figure 6.2. The overall sample: Distribution by age

Table 6.3
Frequency Distribution: Gender Profile of the Total Sample of Participants

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>7</td>
<td>36.8%</td>
</tr>
<tr>
<td>Female</td>
<td>12</td>
<td>63.2%</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>100</td>
</tr>
</tbody>
</table>

As indicated in table 6.3, the sample consisted of 36.8% male and 63.2% female participants. More female employees volunteered to be a part of the study, which resulted in the large participation percentage rate for females. Figure 6.3 depicts this distribution.
According to Table 6.4, 32% of participants represented management, with whom the in-depth interviews were conducted, and 68% of participants represented professional services. Professional services include jobs such as, actuary, underwriting consultant, IT developer and financial officers. Figure 6.4 provides a graphical illustration of the nature of the job of the participants, that is, a combination of management and F&I employees.
Figure 6.4. The overall sample: Distribution by nature of job

Table 6.5
Frequency Distribution: Time-Lapsed since Training Profile of the Total Sample of Participants

<table>
<thead>
<tr>
<th>Time-lapsed since training</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 6 months</td>
<td>16</td>
<td>84.2%</td>
</tr>
<tr>
<td>6 months to 1 year</td>
<td>1</td>
<td>5.3%</td>
</tr>
<tr>
<td>Longer than 1 year</td>
<td>2</td>
<td>10.5%</td>
</tr>
<tr>
<td>Total</td>
<td>19</td>
<td>100%</td>
</tr>
</tbody>
</table>

As indicated in table 6.4, 84.2% of the participants in the sample had undergone training in Neethling’s thinking style preferences in the preceding one to six months, the time lapsed for 5.3% of participants in the sample had undergone training in the past 6 months to 1 year and the time lapsed for 10.5% of participants in the sample was longer than one year previously. This provided a valid sample as the training in Neethling’s thinking style preferences was still fresh in the respondents' minds and they were able to vividly recall the training, which added significant value to the study. It was also important to include participants who had undergone training more than a year previously, as those participants had implemented the training for a longer period and had more experience regarding the application of the training in practice. Figure 6.5 depicts this distribution.
Figure 6.5. The overall sample: Distribution by time-lapsed since training

Table 6.6:
Frequency Distribution: Number of Neethling’s Training Sessions Attended by the Total Sample of Participants

<table>
<thead>
<tr>
<th>Neethling’s training sessions attended</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 sessions</td>
<td>7</td>
<td>36.8%</td>
</tr>
<tr>
<td>4 sessions</td>
<td>10</td>
<td>52.6%</td>
</tr>
<tr>
<td>More than 5 sessions</td>
<td>2</td>
<td>10.6%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>19</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

According to table 6.6, 36.8% of participants had attended three Neethling’s training sessions, 52.6% of participants had attended four Neethling’s training sessions and 10.6% of participants had attended more than five Neethling’s training sessions. This was deemed useful for the study since it was clear that the training had not simply been a once-off occurrence, but that the F&I department had prioritised this training as an essential tool for conducting its business. Figure 6.6 provides a graphical illustration of the Neethling’s training sessions attended.
Table 6.7 depicts the different dominant brain profiles that are possible according to Neethling’s thinking style preferences. As indicated in the table, 47.4% of participants had L1 and L2 dominant brain profiles measured by Neethling’s thinking style preferences instrument; 15.8% were dominant in L1 and R1 brain profiles; 5.3% were dominant in L1 and R2 brain profiles; 10.5% were dominant in L2 and R2 brain profiles; 10.5% were dominant in L2 and R1 brain profiles; 10.5% were dominant in R1 and R2 brain profiles; and no participants represented a whole brain profile where no specific quadrant shows significant dominance. The large representation of the L1 and L2 quadrants is to be expected in a finance and insurance environment, since the positions require mainly analytical, factual and rational thinking (Neethling,
The different brain profiles were discussed in detail in chapter 4 section 4.5.3. There was an excellent mixture of brain profiles within the sample population that could be advantageous for team performance.

Figure 6.7. The overall sample: Distribution by different brain profiles

6.2.2 Graphical illustration of participants in focus group 1

The biographical characteristics of the sample of participants in focus group 1 (7 participants) is indicated in tables 6.8 to 6.14 below, followed by a discussion.

Table 6.8
Frequency Distribution: Race Profile Sample of Participants in Focus Group 1

<table>
<thead>
<tr>
<th>Race</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>4</td>
<td>57.1%</td>
</tr>
<tr>
<td>White</td>
<td>3</td>
<td>42.9%</td>
</tr>
<tr>
<td>Indian</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Coloured</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>100</td>
</tr>
</tbody>
</table>

According to table 6.8, the sample comprised of 57.1% black participants and 42.9% white participants.
Figure 6.8. A graphical illustration of the sample distribution by race (focus group 1)

Table 6.9

Frequency Distribution: Age Profile of the First Focus Group Sample

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 to 30</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>31 to 45</td>
<td>6</td>
<td>85.7%</td>
</tr>
<tr>
<td>46 to 55</td>
<td>1</td>
<td>14.3%</td>
</tr>
<tr>
<td>Older than 55</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

According to table 6.9, the sample consisted of 85.7% of participants between the ages of 31 and 45, and 14.3% between the ages of 46 and 55.
Figure 6.9. A graphical illustration of the sample distribution by age (focus group 1)

Table 6.10

*Frequency Distribution: Gender Profile of First Focus Group Sample*

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1</td>
<td>14.3</td>
</tr>
<tr>
<td>Female</td>
<td>6</td>
<td>85.7</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>100</td>
</tr>
</tbody>
</table>

According to table 6.10, the sample consisted of 14.3% male participants and 85.7% female participants.
Figure 6.10. A graphical illustration of the sample distribution by gender (focus group 1)

Table 6.11
Frequency Distribution: Nature of Job Profile of the First Focus Group Sample

<table>
<thead>
<tr>
<th>Nature of job</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Technical/operational (sales)</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Administrative/clerical</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Professional</td>
<td>7</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

According to table 6.11, the sample consisted of 100% of the participants who were employees providing professional services such as actuary, IT developers and financial officers.
Figure 6.11. A graphical illustration of the sample distribution by nature of job (focus group 1)

Table 6.12

Frequency Distribution: Time-Lapsed since Training Profile of the First Focus Group Sample

<table>
<thead>
<tr>
<th>Time-lapsed since training</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 6 months</td>
<td>5</td>
<td>71.4%</td>
</tr>
<tr>
<td>6 months to 1 year</td>
<td>1</td>
<td>14.3%</td>
</tr>
<tr>
<td>Longer than 1 year</td>
<td>1</td>
<td>14.3%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7</strong></td>
<td><strong>100</strong></td>
</tr>
</tbody>
</table>

According to table 6.12, the sample consisted of 71.4% of the participants who had undergone training in the last one to six months, 14.3% who had undergone training between six months to one year previously and 14.3% who had undergone training longer than one year previously.
Figure 6.12. A graphical illustration of the sample distribution by time-lapsed since training (focus group 1)

Table 6.13

Frequency Distribution: Neethling’s Training Sessions Profile of the First Focus Group Sample

<table>
<thead>
<tr>
<th>Neethling’s training sessions</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 sessions</td>
<td>3</td>
<td>42.8%</td>
</tr>
<tr>
<td>4 sessions</td>
<td>4</td>
<td>57.2%</td>
</tr>
<tr>
<td>More than 5 sessions</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

According to table 6.13, 42.8% of the sample had attended three Neethling’s training sessions, and 57.2% of the sample had attended four Neethling’s training sessions.
Figure 6.13. A graphical illustration of the sample distribution by number of Neethling's training sessions attended (focus group 1)

Table 6.14

Frequency Distribution: Brain Profiles of the First Focus Group

<table>
<thead>
<tr>
<th>Brain profiles</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1 and L2</td>
<td>3</td>
<td>42.9%</td>
</tr>
<tr>
<td>L1 and R1</td>
<td>2</td>
<td>28.6%</td>
</tr>
<tr>
<td>L1 and R2</td>
<td>1</td>
<td>14.3%</td>
</tr>
<tr>
<td>L2 and R2</td>
<td>1</td>
<td>14.3%</td>
</tr>
<tr>
<td>L2 and R1</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>R1 and R2</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Whole brain</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>7</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

As indicated in table 6.14, 42.9% of participants were dominant in L1 and L2 brain profiles, 28.6% dominant in the L1 and R1 brain profiles, 14.3% of participants dominant in L1 and R2 profiles and 14.3% of participants dominant in L2 and R2 profiles.
Figure 6.14. A graphical illustration of the sample distribution by different brain profiles (focus group 1)

6.2.3 Graphical illustration of participants in focus group 2

The biographical characteristics of the sample of participants in focus group 2 (six participants) is indicated in tables 6.15 to 6.21 below, followed by a discussion.

Table 6.15
Frequency Distribution: Race Profile Sample of Participants in Focus Group 2

<table>
<thead>
<tr>
<th>Race</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>1</td>
<td>16.7%</td>
</tr>
<tr>
<td>White</td>
<td>5</td>
<td>83.3%</td>
</tr>
<tr>
<td>Indian</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Coloured</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>100%</td>
</tr>
</tbody>
</table>

According to table 6.15, the sample comprised of 16.7% black participants and 83.3% white participants.
Figure 6.15. A graphical illustration of the sample distribution by race (focus group 2)

Table 6.16
Frequency Distribution: Age Profile of the Second Focus Group

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 to 30</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>31 to 45</td>
<td>5</td>
<td>83.3%</td>
</tr>
<tr>
<td>46 to 55</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Older than 55</td>
<td>1</td>
<td>16.7%</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>100%</td>
</tr>
</tbody>
</table>

According to table 6.16, the sample consisted of 83.3% of the participants between the ages of 31 and 45, while 16.7% were older than 55.
Figure 6.16. A graphical illustration of the sample distribution by age (focus group 2)

Table 6.17

Frequency Distribution: Gender Profile of Second Focus Group

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1</td>
<td>16.7</td>
</tr>
<tr>
<td>Female</td>
<td>5</td>
<td>83.3</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>100</td>
</tr>
</tbody>
</table>

According to table 6.17, the sample consisted of 16.7% male participants and 83.3% female participants.
Figure 6.17. A graphical illustration of the sample distribution by gender (focus group 2)

Table 6.18

*Frequency Distribution: Nature of Job Profile of the Second Focus Group*

<table>
<thead>
<tr>
<th>Nature of job</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Technical/operational (sales)</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Administrative/clerical</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Professional</td>
<td>6</td>
<td>100%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

According to table 6.18, the sample consisted of 100% of the participants who provided professional services and occupied positions as actuary, underwriting consultant, IT developer or financial officer.
Figure 6.18. A graphical illustration of the sample distribution by nature of job (focus group 2)

Table 6.19

*Frequency Distribution: Time-Lapsed since Training Profile of the Second Focus Group*

<table>
<thead>
<tr>
<th>Time-lapsed since training</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 6 months</td>
<td>5</td>
<td>83.3%</td>
</tr>
<tr>
<td>6 months to 1 year</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Longer than 1 year</td>
<td>1</td>
<td>16.7%</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>100%</td>
</tr>
</tbody>
</table>

According to table 6.19, the sample consisted of 83.3% of the participants who had undergone training in the previous one to six months, and 16.7% of the participants who had undergone training longer than one year previously.
Figure 6.19. A graphical illustration of the sample distribution by time-lapsed since training (focus group 2)

Table 6.20.
Frequency Distribution: Neethling’s Training Sessions Profile of the Second Focus Group Sample

<table>
<thead>
<tr>
<th>Neethling’s training sessions</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 sessions</td>
<td>3</td>
<td>50%</td>
</tr>
<tr>
<td>4 sessions</td>
<td>3</td>
<td>50%</td>
</tr>
<tr>
<td>More than 5 sessions</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

According to table 6.20, 50% of the sample had attended three Neethling’s training sessions, while 50% had attended four Neethling’s training sessions.
Figure 6.20. A graphical illustration of the sample distribution by number of Neethling’s training sessions (focus group 2)

Table 6.21

Frequency Distribution: Brain Profiles of the Second Focus Group

<table>
<thead>
<tr>
<th>Brain profiles</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1 and L2</td>
<td>2</td>
<td>33.3%</td>
</tr>
<tr>
<td>L1 and R1</td>
<td>1</td>
<td>16.7%</td>
</tr>
<tr>
<td>L1 and R2</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>L2 and R2</td>
<td>1</td>
<td>16.7%</td>
</tr>
<tr>
<td>L2 and R1</td>
<td>1</td>
<td>16.7%</td>
</tr>
<tr>
<td>R1 and R2</td>
<td>1</td>
<td>16.7%</td>
</tr>
<tr>
<td>Whole brain</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

As indicated in table 6.21, 33.3% of participants were dominant in L1 and L2 brain profiles, 16.7% dominant in L1 and R1 profiles, 16.7% dominant in L2 and R2 profiles, 16.7% dominant in L2 and R1 profiles and 16.7% dominant in R1 and R2 profiles.
Figure 6.21. A graphical illustration of the sample distribution by different brain profiles (focus group 2)

6.2.4 Graphical illustration of individual interviews

The biographical characteristics of the individual interviews (6 in-depth individual interviews with regional managers) are provided in tables 6.22 to 6.28 below.

Table 6.22

*Frequency Distribution: Race Profile of the Individual Interviews*

<table>
<thead>
<tr>
<th>Race</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>White</td>
<td>5</td>
<td>83.3%</td>
</tr>
<tr>
<td>Indian</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Coloured</td>
<td>1</td>
<td>16.7%</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>100%</td>
</tr>
</tbody>
</table>

As indicated in table 6.22, 83.3% of the managers were of the white population group and 16.7% were of the coloured population group.
Table 6.23

*Frequency Distribution: Age Profile of the Individual Interviews*

<table>
<thead>
<tr>
<th>Age</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>18 to 30</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>31 to 45</td>
<td>1</td>
<td>16.7%</td>
</tr>
<tr>
<td>46 to 55</td>
<td>5</td>
<td>83.3%</td>
</tr>
<tr>
<td>Older than 55</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>100%</td>
</tr>
</tbody>
</table>

According to table 6.23, the sample consisted of 16.7% of the participants between the ages of 31 and 45 and 83.3% of the participants between the ages of 46 and 55.
Figure 6.23. A graphical illustration of the sample distribution by age (individual interviews)

Table 6.24
Frequency Distribution: Gender Profile of the Total Sample of the Individual Interviews

<table>
<thead>
<tr>
<th>Gender</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>5</td>
<td>83.3</td>
</tr>
<tr>
<td>Female</td>
<td>1</td>
<td>16.7</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>100</td>
</tr>
</tbody>
</table>

According to table 6.24, the sample consisted of 83.3% male and 16.7% female participants.
Figure 6.24. A graphical illustration of the sample distribution by gender (individual interviews)

Table 6.25
Frequency Distribution: Nature of Job Profile of the Total Sample of Individual Interviews

<table>
<thead>
<tr>
<th>Nature of job</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>6</td>
<td>100%</td>
</tr>
<tr>
<td>Technical/operational (sales)</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Administrative/clerical</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Professional</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

As indicated in table 6.25, 100% of the sample was in management positions. As discussed earlier in this chapter, the researcher decided to conduct in-depth individual interviews with regional managers as she felt that the managers would feel more comfortable divulging controversial information that was unknown to the researcher during an individual interview session, instead of sharing the information in a focus group interview among employees who might report directly to the regional managers.
Figure 6.25. A graphical illustration of the sample distribution by nature of job (individual interviews)

Table 6.26

Frequency Distribution: Time-Lapsed since Training of the Total Sample of Individual Interviews

<table>
<thead>
<tr>
<th>Time-lapsed since training</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 6 months</td>
<td>6</td>
<td>100%</td>
</tr>
<tr>
<td>6 months to 1 year</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Longer than 1 year</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

According to table 6.26, 100% of the participants had undergone training in the previous one to six months.
Figure 6.26. A graphical illustration of the sample distribution by time-lapsed since training (individual interviews)

Table 6.27
Frequency Distribution: Neethling’s Training Sessions Profile of the Total Sample of the Individual Interviews

<table>
<thead>
<tr>
<th>Neethling’s training sessions</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 sessions</td>
<td>1</td>
<td>16.7%</td>
</tr>
<tr>
<td>4 sessions</td>
<td>3</td>
<td>50.0%</td>
</tr>
<tr>
<td>More than 5 sessions</td>
<td>2</td>
<td>33.3%</td>
</tr>
<tr>
<td>Total</td>
<td>6</td>
<td>100</td>
</tr>
</tbody>
</table>

According to table 6.27, 16.7% of the sample had attended three Neethling’s training sessions, 50% had attended four Neethling’s training sessions and 33.3% had attended more than five Neethling’s training sessions.
Figure 6.27. A graphical illustration of the sample distribution by Neethling’s training sessions attended (individual interviews)

Table 6.28

Frequency Distribution: Brain Profiles of the Total Sample of the Individual Interviews

<table>
<thead>
<tr>
<th>Brain profiles</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1 and L2</td>
<td>4</td>
<td>66.6%</td>
</tr>
<tr>
<td>L1 and R1</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>L1 and R2</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>L2 and R2</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>L2 and R1</td>
<td>1</td>
<td>16.7%</td>
</tr>
<tr>
<td>R1 and R2</td>
<td>1</td>
<td>16.7%</td>
</tr>
<tr>
<td>Whole brain</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>6</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

As indicated in table 6.28, 66.6% of the participants were dominant in L1 and L2 brain profiles, 16.7% of the participants were dominant in L2 and R1 profiles and 16.7% of the participant were dominant in R1 and R2 profiles.
Figure 6.28. A graphical illustration of the sample distribution by brain profile (individual interviews)

6.3 CONCLUSION

In this chapter, the characteristics of the six in-depth individual interviews with regional managers and two focus group interviews with the employees were discussed. This study focused on the perceptions of employees’ team performance relating to Neethling’s thinking style preferences in a sales-driven organisation. One of the criteria in this study was that the groups that formed part of the focus group should have undergone three or more training sessions in Neethling’s thinking style preferences to confirm that the training had not simply been a once-off occurrence, but that the F&I department had prioritised this training as an essential tool for conducting its business.

Chapter 7 focuses on the interpretation, reporting and integration of the research results.
CHAPTER 7

DATA ANALYSIS

7.1 INTRODUCTION

This chapter discusses the findings of the study. Two main themes emerged from the study, namely perceptions of Neethling’s thinking style preferences, and experiences relating to Neethling’s thinking style preferences instrument for enhancing team performance. Subthemes were also identified in the main themes.

The objective of this study was to explore the perceptions of a group of employees and management in a sales-driven organisation on how the application of Neethling’s thinking style preferences influenced team performance following their participation in Neethling’s thinking style preferences training (chapter 1, section 1.7). The main themes and subthemes covered the objective of this study.

Teams can assist with the challenges faced by South African organisations and play a critical role in organisational work life (Earley et al., 2005; Parker, 2007; Robbins, 2004). Any attempt to improve teamwork through new approaches, such as Neethling’s thinking style preferences, could add value to team performance and ultimately organisational success. Although numerous studies were found on Neethling’s thinking style preferences and personality (Geyser, 2000; Kroeger, Thuesen, & Rutledge, 2009; Morgeson, Reider, & Campion, 2005; Reilly, Lynn, & Aronson, 2002; Vollrath & Torgersen, 2000) as well as mental model constructs (Lim & Klein, 2006; Mathieu et al., 2000; Mohammed et al., 2010), no research on the role of Neethling’s thinking style preferences in improving team performance in organisations could be found in South Africa. It is therefore believed that this study should make a substantial contribution to the field of human resource management and more specifically the field of team performance.
The findings are based on the literature review and the data obtained from two focus groups and six in-depth individual interviews (chapter 5, table 5.2).

7.2 THE MAIN THEMES DISCUSSED IN THE INTERVIEWS

Richards and Morse (2007, p. 135) define a theme as “a common thread that runs through the data”. The following themes were identified after the research process in chapter 5 had been completed (themes and subthemes are presented in annexure D).

- Theme 1: Perceptions of Neethling’s thinking style preferences
- Theme 2: Experiences relating to Neethling’s thinking style preferences instrument for enhancing team performance

As discussed in chapter 5, section 5.3.9, the data analysis was conducted using Tesch’s (1990) qualitative data analysis method. After the themes had been identified, the researcher was able to find text from the verbatim interviews that had relevance and meaning for the themes (Richards & Morse, 2007).

Each of the main themes, together with the subthemes, are introduced and presented in the next section. Direct quotes from the transcribed interviews are used to confirm the codes. The theme codes are then contrasted and compared with the literature (chapters 2, 3 and 4), in other words, literature control is used.

7.2.1 Theme 1: Perceptions of Neethling’s thinking style preferences

The following questions, probing questions and answers were developed into theme 1:
- In your words, what are Neethling’s thinking style preferences?
- What are the four brain quadrants that Neethling's thinking style preferences consist of?
- Can you give me some examples of Neethling's four different brain quadrants, namely L1, L2, R1 and R2?
This theme unfolded in the following subthemes:
- A definition of Neethling’s thinking style preferences
- Different dimensions of thinking style preferences (brain profiles)

### 7.2.1.1 Subtheme 1.1: Definition of Neethling’s thinking style preferences

The main question and answers relating to the definition of Neethling’s thinking style preferences are indicated in table 7.1.

**Table 7.1**
*Definition of Neethling’s Thinking Style Preferences*

<table>
<thead>
<tr>
<th>Main question: In your words, what are Neethling’s thinking style preferences?</th>
<th>Group category (code) identified for definition of Neethling’s thinking style preferences</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Verbatim evidence</strong></td>
<td><strong>Understanding others</strong></td>
</tr>
<tr>
<td>Participant 1: I think it’s understanding the different brain profiles so you can communicate with them in a language that they understand.</td>
<td></td>
</tr>
<tr>
<td>Participant 3: I can possibly understand other people better by looking at their actions and the way they interact.</td>
<td></td>
</tr>
<tr>
<td>Participant 4: It's all about understanding other people. That is how I understand it. Understanding who they are, how they react, how they think.</td>
<td></td>
</tr>
<tr>
<td>Participant 6: Kobus Neethling is all about the dominant thinking quadrants of the brain with the L1, L2, R1, R2.</td>
<td>Thinking preferences</td>
</tr>
<tr>
<td>Participant 7: It’s if you’re left or right brain, there are L1, L2, R1 or R2 and then it is divided into different categories as well.</td>
<td></td>
</tr>
</tbody>
</table>
Participant 8: It’s the strengths of your thinking preferences, either it’s a left brain, right brain and what quarter it falls into.

Participant 9: It’s your thinking preferences, it’s your weaknesses, it identifies your strong points, where you are strong and where you are weak.

Participant 10: How to use the thinking style preferences knowledge when you’re dealing with customers, how to profile them.

Participant 15: Preferences for left brain versus right brain.

Participant 3: Oh, it means I understand myself better.

Participant 8: It’s the strengths of your own thinking preferences.

Participant 9: It’s your thinking preferences, it’s your weaknesses, it identifies your strong points, where you are strong and where you are weak.

Participant 11: To know where your weaknesses are and strengths so that you can work on them, cause normally we tend not to know what they are until we do the brain profiling.

From table 7.1 it is evident that the participants concurred that Neethling’s thinking style preferences are about:

- understanding one another (3 participants);
- a person’s thinking preferences (6 participants); and
- better understanding yourself (4 participants).
The probing question and answers relating to the different dimensions of thinking style preferences are indicated in table 7.2 below.

### 7.2.1.2 Subtheme 1.2: Different dimensions of thinking style preferences (brain profiles)

Table 7.2  
Different Dimensions of Thinking Style Preferences (Brain Profiles)

<table>
<thead>
<tr>
<th>Probing question: Can you give me some examples of Neethling's four different brain quadrants, namely L1, L2, R1 and R2?</th>
<th>Group category (code) identified for the dimensions of Neethling’s thinking style preferences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbatim evidence</td>
<td></td>
</tr>
<tr>
<td>Participant 2: L1 is a no-nonsense type of person, they want the facts.</td>
<td>L1 = Analyst</td>
</tr>
<tr>
<td>Participant 5: L1 likes looking at stats, numbers person.</td>
<td></td>
</tr>
<tr>
<td>Participant 6: L1 is more focused, uh more almost like foreman stroke manager type person.</td>
<td></td>
</tr>
<tr>
<td>Participant 19: L1 is more analytical.</td>
<td></td>
</tr>
<tr>
<td>Participant 2: L2, likes processes.</td>
<td>L2 = Organiser</td>
</tr>
<tr>
<td>Participant 5: L2 likes structure, detailed information.</td>
<td></td>
</tr>
<tr>
<td>Participant 6: L2 is more structured and detail oriented.</td>
<td></td>
</tr>
<tr>
<td>Participant 17: L2 is more task oriented.</td>
<td></td>
</tr>
</tbody>
</table>
Participant 18: L2 are the introverts.

Participant 2: R2 talks your head off and is very sociable and outgoing.

Participant 6: R2, who is more of the tree hugger, the touch-feely type of person.

Participant 17: R2 is more people oriented.

Participant 18: R2 are the extroverts.

Participant 19: R2 is more expressive.

Participant 2: R1 is out of the box.

Participant 4: an R1 is morearty-farty.

Participant 5: R1 is creative.

Participant 6: R1 which is the out of the box type, zig zag type of person who is all over the place.

As indicated in table 7.2, the following examples of the four different brain quadrants of Neethling’s thinking style preferences were provided by participants:

- L1 – analyst (4 participants)
- L2 – organiser (5 participants)
- R2 – socialiser (5 participants)
- R1 – imagineer (4 participants)

From the information in tables 7.1 and 7.2, it is clear that the participants reached sufficient consensus on the definition of Neethling’s thinking style preferences and the different dimensions of thinking style preferences (brain profiles). The interviews could therefore continue.
Discussion

At this stage, it was necessary to ask these questions to establish whether the participants were aware of the meaning of Neethling’s thinking style preferences before the researcher could continue with the interviews. If the participants could not give a satisfactory description of what Neethling’s thinking style preferences entail, the aim of this study, namely to explore perceptions of employees’ team performance related to Neethling’s thinking style preferences, would not be meaningful. The findings presented in table 7.1 confirm that the responses of the participants relating to the definition were in fact sound, and that they understood Neethling’s thinking style preferences extremely well.

The participants perceived Neethling's thinking style preferences as obtaining insight into their own and others' thinking preferences and understanding themselves and other people better. The results support Neethling’s (2005) (see chapter 4, section 4.5) definition that understanding one’s own thinking style preferences gives one a new perspective on oneself and others with whom one interacts on a daily basis.

The results also support the views of the following authors on the definition of Neethling’s thinking style preferences:

- Neethling (2005) (see chapter 4, section 4.5) states that understanding the way individuals prefer to think, makes them more sensitive to the preferences of others.
- Nieuwenhuizen and Groenewald (2006) (see chapter 4, section 4.5) argue that a person's thinking style preferences can be grouped into the four quadrants in the brain, with each area dealing with different thinking preferences, and assume certain preferences in behaviour by analysing which area people prefer in their thinking.
- Van Dijk and Labuschagne (2016) (see chapter 4, section 4.5) note that people are inherently different, and that individual differences result in personal thinking preferences that influence the way in which people communicate, make decisions, solve problems and manage themselves and others.
According to Ashton, (2007), Eysenck, (2004), Furnham (2008); Landy and Conte (2004); and Maltby et al., (2007) (see chapter 4, section 4.2), it is important to understand members' thinking style preferences when predicting their behaviour in particular situations.

The participants were aware of and gave sufficient examples relating to the four different brain quadrants (L1, L2, R1 and R2) of Neethling's thinking style preferences (brain profiles). They showed valuable insight into the four different brain quadrants and the thinking preferences associated with the different thinking styles. The findings support the view of Neethling (2005) (see chapter 4, section 4.5.3) relating to the examples of the four different brain quadrants.

The results also support the views of the following authors on the different brain quadrants of Neethling's thinking style preferences:

- **Herbst and Maree (2008)** (see chapter 4, section 4.5.3) view the L1 – analyst/realist brain quadrant as logical, quantitative, critical, objective, analytical and factual; the L2 – preserver/organiser dimension as sequential, conservative, controlled, structural, detailed and procedural; the R1 – strategic/imagineer dimension as strategising, synthesising, conceptual, metaphorical, integrative and explorative; and R2 – socialiser/empathiser dimension as emotional, empathic, expressive, sensory and cooperative.

- **Nieuwenhuizen and Groenewald (2006)** (see chapter 4, section 4.5.3) see the general thinking preferences of people in the L1 quadrant as follows: accuracy; precision; exactness; focused approach; factual reasoning; analytical thinking; objectivity; realism; concrete information; criticism; correctness; performance-driven; authoritarianism; external discipline; and little scope for feelings. The R1 quadrant includes the following: searching for alternatives; preference for the big picture; idea-intuition; strategy; synthesis; integration; risk; restlessness; becoming bored quickly; experimenting; diversity; comfortable with chaos; fantasy; surprise; and association.

- **Dotson (2015)** (see chapter 4, section 4.5.3) views the thinking style preferences of L1 as facts, meticulous, logical and intuitive; L2 as form, methodical,
organisational and task driven; R1 as future, big picture focused, pioneering and intuitive; and R2 as feeling, considerate, expressive and interpersonal.

- Cetin (2015) (see chapter 4, section 4.5.3) sees the thinking preferences of an L1 as clear, rational, logical, objective, critical, realistic, concrete, focused, sensible, accurate, coherent, calculating, goals, performance and bottom line; L2 as orderly, neat, structured, reliable, consistent, diligent, methodical, detail oriented, prepared, systematic, habitual, routine, punctual, efficient and organised; R1 as curious, strategic, imaginative, intuitive, risk-taking, visionary, creative, simultaneous, visual thinker, unconventional, experimenting, big picture, challenges status quo and opportunity oriented; and R2 as sociable, approachable, perceptive, empathetic, understanding, supportive, harmony, relational, loyal, tolerant, sensitive, affectionate, feeling, emotional, expressive, and cohesive.

7.2.2 Theme 2: Experiences relating to Neethling’s thinking style preferences instrument for enhancing team performance

The answers to the following questions during the focus group interviews and individual interviews gave rise to theme 2:

- In your view, did the application of the Neethling thinking style preferences knowledge, lead to any advantages with regard to your team’s performance?
- In your experience, did the application of the Neethling thinking style preferences knowledge, lead to any disadvantages with regard to your team’s performance?
- To what extent is the Neethling’s thinking style preferences instrument practically implemented in the F&I department?
- In your experience, when applying the knowledge gained from Neethling’s thinking style preferences training, what influence, if any, did it have on your team’s performance?
- In your opinion, would you say that the Neethling’s thinking style preferences instrument is a viable tool for enhancing team performance?
This theme unfolded in the following subthemes:

- **Subtheme 2.1**: Advantages of applying Neethling’s thinking style preferences knowledge with regard to team performance
- **Subtheme 2.2**: Disadvantages of applying Neethling’s thinking style preferences knowledge with regard to team performance
- **Subtheme 2.3**: Neethling’s thinking style preferences instrument as a viable tool for enhancing team performance

### 7.2.2.1 Subtheme 2.1: Advantages of applying Neethling’s thinking style preferences knowledge with regard to team performance

Table 7.3

*Advantages of Applying Neethling’s Thinking Style Preferences Knowledge with Regard to Team Performance*

<table>
<thead>
<tr>
<th>Main question: In your experience, did the application of the Neethling’s thinking style preferences knowledge, lead to any advantages with regard to your team’s performance?</th>
<th>Group category (code) identified for the advantages of applying Neethling’s thinking style preferences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbatim evidence</td>
<td>Participant 1: It’s understanding, just a greater understanding of each individual. It takes away a lot of the animosity that could exist because of a diverse brain profile. There’s that back to understanding, and I think there’s more respect for the individuals. With certain brain profiles, people tend to tell them to keep quiet and irritate them because they talk too much, or they talk at the wrong times, but with this, there’s a greater understanding.</td>
</tr>
<tr>
<td></td>
<td>Participant 2: With me being a L1, they understand that I’m a</td>
</tr>
</tbody>
</table>


no-nonsense type of person and participant 3 is going to talk your head off because he’s a R2. Before the Neethling training, we used to fight with each other and I couldn’t understand, participant 3 would come up here for a meeting and we’ll work on a project together but he’s done absolutely nothing and just wants to talk, whereas I’ve prepared fully! We used to fight, but now, it doesn’t happen anymore because he understands that I want things a certain way and I understand, he prefers to do it like this. Because of us being so diverse and understanding that, we actually make use of each other’s strengths.

Participant 3: Better understanding of others

Participant 6: We understand people now. We understand what makes the other people tick and how to work with them.

Participant 9: To understand each other better and to fulfil each other. We learned how to analyse management’s thinking styles better and to be able to better adapt to the work situation.

Participant 12: It makes you understand other people a lot better as well because then you know there’s left brain people, right brain people and you know that we’re not all the same.

Participant 13: I’m able to also understand other people. Especially your management, if you know how your management thinks or which part of the brain they use, you’ll be able to communicate better.

Participant 15: You recognise characteristics; it’s easier to get
along with someone because you know where they’re coming from. Knowledge is power.

Participant 16: It guides the way you deal with people on a one on one basis, understanding the differences between people and where it comes from a little bit better.

Participant 19: It helps you to understand people better.

Participant 1: By understanding what someone’s like, you can resolve conflicts a lot easier, so it’s all about communication and emotional intelligence.

Participant 4: It also helps alleviate conflict.

Participant 9: Less conflict – we’re dealing with it better because we understand each other.

Participant 3: Better understanding of yourself, now you realise why you get bored in certain circumstances or why you get irritated in other circumstances.

Participant 5: Well self-aware of yourself. So, if you’re self-aware of yourself, you know what your blind spots are and because of open communication, people in your team feel free to tell you what they think is a blind spot. So that’s why I say, being self-aware, is key. Because now each one is self-aware and we can all openly speak to each other without treading on people’s toes or making them feel bad, because people don’t like criticism. This is now constructive criticism.

Participant 9: To understand yourself better.

Participant 10: Because we have been to this course and other people haven’t been, you have to take a step back and
look at the situation before you deal with them. Otherwise, if you’re the one who’s not going to lead by example then all your hard work is going to waste. You have to be aware of what you’re feeling and what other people feel and have self-awareness before you can respond and act.

Participant 13: I think, knowing myself – first of all on which things I prefer with regard to my way of thinking.

Participant 14: Knowing where you are weak.

Participant 15: It makes you confident with yourself as well. You know your own strengths and you can focus in improving your strengths as it is your natural default.

Participant 19: It helps you to understand yourself better.

Manager 1: So as a management team, there’s a far greater communication and respect amongst each other, which definitely helped us as a group of people.

Participant 1: Understanding people, understanding the different brain profiles so you can communicate with them in a language that they understand.

Participant 4: The way they communicate – yes, team members communicate better.

Participant 5: I got to find out I’m a left brainer and what the different quadrants mean and how to use it to your advantage to be able to communicate better with people and also knowing how to communicate with staff.

Participant 6: Our communication is greatly enhanced.

| Increased communication |  |
Participant 8: Better communication between team members, sales people, managers and the F&I.

Participant 3: Improved cohesion, and a better working atmosphere. Sometimes, there will be a bad relationship between a person and other people they work with. That bad relationship just gets worse and worse. Once they've identified that the brain profiling is potentially the answer to why they do not see eye to eye, they start to understand what brain profile that person fits into, and where they themselves fit into, then they start to interact, they start treating that person slightly different and suddenly the interaction is a lot better and easier and some of them have actually mentioned that after many years of struggling with someone, all of the sudden we’re best friends in a work environment.

Participant 4: Understanding, how the team thinks, understanding how they do things differently, and working towards the same goal.

Participant 7: It improves relationships between the team members – not just the communication, but we also understand each other better.

Participant 9: Better cooperation between the members of the team.

Participant 15: The more you know of someone that you work with, the more you could work with them because you obviously find similarities and differences and the differences are not the end of the world.

Participant 16: Being able to understand each other's thinking-style preferences has improved the team spirit within the
Participant 19: It also helps you to interact with the people in your team which improves our team’s cohesion.

Participant 1: Once again, it’s understanding, of what a person’s about, it’s for F&I who’s selling to the client, they can identify, pick up the thinking preferences of what that person’s like, they can speak to them in a language that that person understands, and so the results are great.

Participant 5: They have also learned how to read certain customers, for example, if you know [these are] more left-brain thinkers, you know [they] want detailed information, and then they start giving the detail of the product or the finance of the product and that’s how they’re starting to sell more, because they’re starting to realise to talk to a person, to whichever brain he is.

Participant 8: Because we are able to read and understand customers’ thinking style preferences better, we’ve improve[d] in the closure of deals.

Participant 15: They give you tips to recognise characteristics of a left brainer or a right brainer, like the way they dress, how they ultimately look and if you pick up on that and you know if they’re left brain or right brain then the rest comes into play, how to interact, and to adjust your behaviour to suit them as a customer if you look at it from that point of view, you understand them and their needs better.

Participant 16: To make the customer more comfortable because you understand him better.
Participant 17: Also needs analysis on different team members and customers.

Participant 19: It showed you the tools on how to market to different people.

Participant 2: I look after Gauteng and Gauteng was the worst performing region … With my people going through the training, our performance improved so much that we did so much better than the other regions, so it can only be attributed to their different way of thinking and different way of selling. The last thing is, our belief in the Neethling training has actually helped us to grow the F&I department in terms of the income we generate for the group and for the organisation.

Participant 6: Better results as far as the working environment go.

Participant 8: Because we are able to read and understand customers’ thinking style preferences better, we've improve[d] in the closure of deals and we are more profitable in our deals.

Participant 16: Our sales have improved because we are able to better communicate with clients and are able to tell what their thinking style preferences are. We are able to make the customer more comfortable because we understand him better.

**Discussion**

It is clear from the information gathered from the participants in table 7.3 that applying the knowledge of Neethling’s thinking style preferences had multiple advantages. These advantages entail matters both within and outside to the team, as highlighted below:
better understanding of people (10 participants);
better conflict management within the team (3 participants);
improved self-awareness (8 participants);
better communication with team members and other key stakeholders (5 participants);
increased cohesion/improved relationships among team members (7 participants);
better customer service (7 participants); and
improved productivity (4 participants).

In terms of the data in table 7.3, it can be concluded that the participants reached a satisfactory degree of consensus on the advantages of Neethling’s thinking style preferences regarding team performance.

The results support the views of the following authors on the advantages of Neethling’s thinking style preferences for enhancing team performance. Although the other theories may differ, the core components of Neethling’s thinking style preferences are closely matched, in terms of similarity.

**Understanding of others and self**

- Cameron and Green (2012) (see chapter 1, section 1.2.2) argue that little knowledge of team behaviour, team members not understanding themselves, not understanding teamwork processes and the inability to manage diversity impact negatively on team performance.
- Puth (2008) (see chapter 2, section 2.6.3) maintains that it is important for the leader and team members to gain an understanding of the individuals’ different roles within the team and to appreciate each person’s competencies and talents in a team, to ultimately improve the team’s performance.
- Hirschfeld et al., (2006), Levi (2015) and Stevens and Campion (1994) (see chapter 3, section 3.6.1.2) state that part of a team’s performance depends on the competencies of its team members. When team members have certain
competencies, in this instance, thinking style preferences that best fit task demands, team performance is more likely to improve.

- Joubert (2012), Van Der Vegt et al., (2006), and Van Knippenberg et al., (2007), (see chapter 3, section 3.6.1.2) state that the diversity of teams, which can also be related to diversity of members’ thinking style preferences, plays a crucial role in team effectiveness. Diversity is more likely to have positive effects on issues such as team processes and team performance when team members believe in the value offered by diversity.

- Edwards et al., (2006), Ellis (2006), Kozlowski and Ilgen (2006), Mathieu et al., (2005), Mathieu, Heffner, Goodwin, Cannon-Bowers, and Salas (2000), Mohammed et al., (2010), and Robbins (2009), (see chapter 3, section 3.6.1.4) contend that team performance will suffer when members have the wrong mental models. This can also be seen as members having different thinking style preferences. This may cause the team to argue over how things should be done, instead of focusing on what needs to be done. Studies on shared team mental models support the view that team performance will be positively affected when members have appropriate team mental models.

- Sharp et al., (2000) (see chapter 4, section 4.3.1) worked with several teams using the MBTI for determining personal differences, and argue that the understanding of personal differences has led to the overall improvement of a team performance.

- Parker (2008) (see chapter 4, section 4.4.4) posits that understanding the team player styles provides insight into team leaders and members to better understand themselves and their contribution to team success. Successful teams understand that style diversity, in this instance, thinking style preferences diversity, is important, but that it is the ability of team members to recognise and utilise this diversity as a key factor in creating and sustaining a high-performance team.

**Better conflict management**

- Tjosvold (2008) and Rudansky-Kloppers and Strydom (2015) (see chapter 2, section 2.6.4) states that if conflict is well managed, it can have positive
outcomes such as improved problem solving, conflict resolution and improved relationships in teams.

- Jehn and Mannix (2001) (see chapter 2, section 2.6.4) argue that effective conflict management positively impacts on team cohesiveness and performance.
- Jehn (1997), and Peterson and Behfar (2003) (see chapter 3, section 3.6.1.4) posit that the competency of managing conflict effectively is imperative for effective team work as limited conflict may stimulate team activity and improve team performance.
- Rubin et al., (1997) (see chapter 3, section 3.3.1.4) contend that interpersonal relationships involve fostering trust between team members, ensuring transparent communication and collaborative problem solving, effective methods for conflict resolution and ensuring sensitivity and flexibility with team members. These components all have a direct impact on a team's performance.

**Improved communication**

- Al-Alawi, et al., (2007), Bergiel et al., (2008), McDermott et al., (1999), and Townsend and DeMarie (1998) (see chapter 3, section 3.8.3) maintain that effective two-way communication is a requirement for effective team performance. The success of teams depends on sharing knowledge and effective communication between team members.
- Green and Compton (2003), Patrashkova-Volzdoska et al., (2003), and Pinto and Pinto (1991) (see chapter 3, section 3.8.3) state that a number of authors argue that increased levels of communication among team members is a key to better team performance.
- Ancona and Caldwell (1992), and Jablin and Sias (2001) (see chapter 3, section 3.8.3) found that teams with more frequent internal communication had better performance. Good team performance therefore requires a communication threshold because communication is the source of information team members must share.
- Van Dijk and Labuschagne (2016) (see chapter 4, section 4.5) state that understanding one's thinking style preferences influences one's communication,
problem solving, decision making and management styles. This provides a new perspective of oneself and of others with whom one interacts on a daily basis.

**Team cohesion / improved relationships**

- Aoyagi et al., (2008) (see chapter 2, section 2.6.1) posit that cohesive teams are more effective as members participate and collaborate with each other.
- DuBrin and Dalglish (2003) (see chapter 2, section 2.6.3) state that a major strategy in the development of teamwork and team effectiveness is to promote cooperation between group members and make them realise that working together effectively is an expected standard of conduct.
- Forsyth (2010) (see chapter 2, section 2.6.1) contends that the success of teams can be attributed to interpersonal relations of team members. These include team member identification with the team, team cohesion, transparent communication, commitment to shared tasks and putting the needs of the team before individual interests.
- Johnson and Johnson (2006) (see chapter 2, section 2.6.1) state that team commitment improves as team cohesion and team member identification within the team increase.
- Alvarez, et al., (2013) (see chapter 2, section 2.6.1) posit that a lack of cohesion within a team working environment is certain to affect team performance because of the unnecessary stress and tension between coworkers. Cohesiveness is therefore a crucial and determining factor for team effectiveness.
- Beal et al., (2003), Evans and Dion (1991), Gully et al., (1995), Mullen and Copper (1994), Tekleab et al., (2009) and Wech et al., (1998) (see chapter 3, section 3.6.1.4) argue that the degree to which team members are comfortable and experience a feeling of belonging relates positively to team effectiveness or the level of team performance.
- Robbins and Judge (2009) (see chapter 3, section 3.6.1.2) maintain that a team composed of individuals who enjoy working as part of a team are likely to be a high-performance team.
- Beal et al., (2003) and Mesmer-Magnus and DeChurch (2009) (see chapter 3, section 3.6.1.1) contend that openly sharing information with teammates
promotes positive climactic states (e.g. trust and cohesion), which ought to improve team socioemotional outcomes and, in turn, team performance.

**Improved customer service**

- Hackman (2002) (see chapter 3, section 3.3.1.7) argues that team effectiveness is a function of exceeding customer expectations in product/service delivery, developing team capabilities over a period and satisfying team members’ needs, which leads to enhanced team performance.

**Improved productivity**

- Gibson et al., (2009), Klein et al., (2009), and Spiegel and Torres (1994) (see chapter 3, section 3.8.5) state that team members need to work together because successful participation in teams improves the leadership skills and morale of members and improves processes, procedures and productivity in an organisation.
- Gibson (2003), Jung and Sosik (2003), Tasa et al., (2007) and Robbins and Judge (2009) (see chapter 3, section 3.6.1.4) posit that team efficacy occurs when teams are confident and believe they can thrive. Successful teams’ views about productivity and future accomplishments increase, which, in turn, inspires them to work harder. This ultimately leads to improved team performance.
- Margerison and McCann (1990) (see chapter 4, section 4.4.5) argue that when members realise their team members’ and own potential, they are given work activities that they prefer doing. When members work in areas that are aligned with their preferences, they perform better.
- Colenso (2000) (see chapter 2, section 2.5.1) states that organisations using teams have shown that effective use of teams can bring significant improvements in productivity, creativity and employee satisfaction.
- Neethling (2005) (see chapter 4, section 4.5.3) also contends that by using whole brain methodology, organisations and their employees are better positioned to comprehend, predict and probably expand the outcomes and overall results of the organisation.
Comparing the findings in this study with literature on team performance, it can be concluded that Neethling’s thinking style preferences enhance team performance which is (as discussed above) important in a successful team. If members in a team can work together, it also has an advantage for the organisation as it increases productivity and service to customers (Neethling, 2005).

7.2.2.2 Subtheme 2.2: Disadvantages of applying Neethling’s thinking style preferences knowledge with regard to team performance

Table 7.4
Disadvantages of Applying Neethling’s Thinking Style Preferences Knowledge with Regard to Team Performance

<table>
<thead>
<tr>
<th>Main question: In your experience, did the application of the Neethling’s thinking style preferences knowledge, lead to any disadvantages with regard to your team’s performance?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Verbatim evidence</td>
</tr>
</tbody>
</table>

Participant 2: There are some of our managers that abuse the fact they’re right brain. They will have, for argument’s sake, got to do something but they won’t do it properly because “no man, I’m a right brain person, I don’t have time to type this up nice like you” and because of us understanding that they’re right brains, we let it slide.

Avoiding tasks

Participant 3: The only disadvantage in my view potentially is that you get labelled. Your friends and colleagues now know that you fit into a specific category and it is now your label, so you are that person and so anything that happens it’s because you are that person, so now suddenly you are labelled and put into a specific box, it’s almost like irrespective of what you now do, you’re still seen as that Labelling
Discussion

The possible disadvantages that the participants experienced when applying the knowledge of Neethling's thinking style preferences in their team were as follows:

- avoiding tasks (1 participant);
- labelling (1 participant); and
- wrong assessments (1 participant).

In this study, it was found that labelling people according to their thinking style preferences and not expecting them to be able to do things outside of their dominant brain profile, as if development of other brain quadrants is impossible, could lead to feelings of inferiority by the person being labelled and it could restrict personal growth.

Another disadvantage is using the knowledge of their brain profile and their fellow team members’ profiles to avoid or abdicate certain tasks and responsibilities, for example, right brain people not wanting to prepare properly before going into a meeting and just going with the flow because they know their left-brain colleagues will be well prepared.

In order to become more successful, members need to become more flexible. Members should be able to take on any thinking style or role as required, and be able to dispense with their natural tendencies. Research by Fletcher (2002) (see chapter 4, section 4.4.1) has shown that the “best” people are able to take the
required roles and do the necessary tasks as appropriate for the demands of the situation, and not to be a prisoner of their personalities.

Since this is the first time that a study on Neethling’s thinking style preferences instrument for enhancing team performance was conducted, the researcher could not find any disadvantages that emerged from the study in the relevant information that she consulted in the literature. However, it is important to take cognisance of the possible disadvantages mentioned by three participants.

7.2.2.3 Subtheme 2.3: Neethling’s thinking style preferences instrument as a viable tool for enhancing team performance

Table 7.5
Neethling’s Thinking Style Preferences Instrument as a Viable Tool for Enhancing Team Performance

| Participant 1: Yes, definitely, the upswing of understanding how someone works has really been a revelation for us, and as I say, we really believe in this, we’ve put every single F&I through the whole process a couple of times and it’s been working well. As I’ve said, we subscribed to every single one of us, I mean it’s a philosophy, it’s part of our DNA if you want to call it, we can speak the same language, people talk about different brain profiles to each other, so we speak the language of the lessons we’ve learned. | Improved understanding |
Participant 2: 100% better understanding of yourself and others.

Participant 3: Yes, the fact that the team better understands one another, therefore they know how to dove-tail nicely, is that a familiar concept? Ok let me try and say it differently, you might be strong in one area, I'm strong in another area, we understand that and we know that if you put your strong area together with my strong area then our strong area is bigger. It also improves self-awareness, I now know why I get bored in certain circumstances or why I get irritated in other circumstances.

Participant 4: Yes, I think it is, because you know it goes into quite a bit of detail with the different quadrants, and I think that helps a lot. You see what I found was, without us realising it, we already treat different clients differently and I think the Neethling training has helped us understand it a little bit more. In understanding clients, in how to measure them, you know how to measure your sales people, how we must treat them differently when we want you know things out of them, so it’s definitely a viable tool.

Participant 5: Definitely. Each F&I or member of my team got a little booklet – pointers on how to see if the person is left brain, right brain.

Participant 6: It definitely is. Again, from what I’ve been saying, it enables you to work a lot closer with your colleagues because you’re able to identify well, which dominance, which quadrant is their dominance and you can talk to them in their language, instead of clashing with them all the time.

Participant 13: It creates better understanding of each other.
Participant 1: There's a far greater communication and respect amongst each other, which definitely helped us as a group of people.

Participant 5: The communication within my team and with the different management teams that we meet with on a quarterly basis have improved a lot.

Participant 6: Our communication is greatly enhanced.

Participant 3: People are now getting along with people that they never used to get along with.

Participant 6: Our personal relationships are greatly enhanced and if you have a better relationship with the people you work with, it will increase team performance.

Participant 3: When you meet new people or customers you are able to fairly and accurately get an idea of who that person is and what they want and what they don’t want and thereby you can adjust your approach to them which leads to better customer service.

Participant 4: You see what I found was, without us realising it, we already treat different clients differently and I think the Neethling training has helped us understand it a little bit more. In understanding clients, in how to measure them, you know how to measure your sales people; how we must treat them differently when we want you know things out of them, so it’s definitely a viable tool.

Participant 5: The training enabled us to also deal with customers that phone in complaints better, so the communication to me is key.
Participant 2: Our [belief] in this has actually helped us to grow the F&I department in terms of the income we generate for the organisation. I think it’s a viable tool because as some people are strong left brain and some people are right brain, we complement each other and because of us being so diverse and understanding, we actually make use of each other’s strengths.

Participant 7: I think yes, because as we already mentioned quite a number of times, it creates better workmanship, it creates better understanding of each other and it improves on achieving goals.

Participant 10: In order for you to manage other people, you have to be able to manage yourself first and this is what this has done for us, so yes, definitely a valuable tool for enhancing our team performance.

Participant 13: I think yes, because people are able to work together and it improves on achieving goals.

Discussion

The information gathered from the participants in table 7.5, corresponds with the advantages of Neethling’s thinking style preferences, identified earlier (theme 2):

- improved understanding (7 participants);
- increased communication (3 participants);
- team cohesion/improved relationships (2 participants);
- better customer service (3 participant); and
- improved organisational productivity (4 participant).

The findings support the views of the following authors:
**Understanding of others and self**

- Cameron and Green (2012) (see chapter 1, section 1.2.2) argue that little knowledge of team behaviour, team members not understanding themselves, not understanding teamwork processes and the inability to manage diversity impact negatively on team performance.

- Puth (2008) (see chapter 2, section 2.6.3) maintains that it is important for leader and team members to gain an understanding of the individuals’ different roles within the team, to appreciate each person’s competencies and talents to ultimately improve the team’s performance.

- Hirschfeld et al., (2006), Levi (2015) and Stevens and Campion (1994) (see chapter 3, section 3.6.1.2) contend that part of a team’s performance depends on the competencies of its team members. When team members have different competencies, in this instance, thinking style preferences that best fit task demands, team performance is more likely to improve.

- Joubert (2012), Van Der Vegt et al., (2006), and Van Knippenberg et al., (2007) (see chapter 3, section 3.6.1.2) posit that the diversity of teams, which can also be related to diversity of members’ thinking style preferences, plays a crucial role in team effectiveness. Diversity is more likely to have positive effects on issues such as team processes and team performance when team members believe in the value offered by diversity.

- Edwards et al., (2006); Ellis (2006), Heffner and Goodwin (2005), Kozlowski and Ilgen (2006), Mathieu et al., (2005), Mohammed et al., (2010), and Robbins (2009) (see chapter 3, section 3.6.1.4) argue that team performance suffers when members have the wrong mental models. This can also be seen as members having different thinking style preferences. This may cause the team to argue over how things should be done, instead of focusing on what needs to be done. Studies on shared team mental models support the view that team performance is positively affected when members understand their team members' mental models.

- Sharp et al., (2000) (see chapter 4, section 4.3.1) worked with several teams using the MBTI to determine personal differences, and they argue that the understanding of personal differences has led to the overall improvement of team performance.
• Parker (2008) (see chapter 4, section 4.4.4) contends that understanding the team player styles, provides insight into team leaders and members to better understand themselves and their contribution to team success. Successful teams understand that style diversity, in this instance, thinking style preferences diversity, is important, but it is the ability of team members to recognise and utilise this diversity which is a key factor in creating and sustaining a high-performance team.

Improved communication

• Al-Alawi et al., (2007), Bergiel et al., (2008), McDermott et al., (1999), and Townsend and DeMarie (1998) (see chapter 3, section 3.8.3) contend that effective two-way communication is a requirement for effective team performance. The success of teams depends on sharing knowledge and effective communication between team members.
• Green and Compton, (2003), Patrashkova-Volzdoska et al., (2003), and Pinto and Pinto (1991) (see chapter 3, section 3.8.3) state that a number of authors argue that increased levels of communication among team members is a key to better team performance.
• Ancona and Caldwell (1992), and Jablin and Sias (2001) (see chapter 3, section 3.8.3) found that teams with more frequent internal communication had greater performance. Good team performance therefore requires a communication threshold, as communication is the source of information team members must share.
• Van Dijk and Labuschagne (2016) (see chapter 4, section 4.5) maintain that understanding one’s thinking style preferences influences one’s communication, problem solving, decision making and management styles. This provides a new perspective of oneself and of others with whom one interacts on a daily basis.

Team cohesion / improved relationships

• Aoyagi et al., (2008) (see chapter 2, section 2.6.1) argue that cohesive teams are more effective as members participate and collaborate with each other.
• DuBrin and Dalglish (2003) (see chapter 2, section 2.6.3) state that a major strategy in the development of teamwork and team effectiveness is to promote cooperation between group members and make them realise that working together effectively is an expected standard of conduct.

• Forsyth (2010) (see chapter 2, section 2.6.1) posits that the success of teams can be attributed to interpersonal relations between team members. These include team member identification with the team, team cohesion, transparent communication, commitment to shared tasks and putting the needs of the team before individual interests.

• Johnson and Johnson (2006) (see chapter 2, section 2.6.1) contend that team commitment improves as team cohesion and team member identification within the team increases.

• Alvarez et al., (2013) (see chapter 2, section 2.6.1) maintain that a lack of cohesion in a team working environment is certain to affect team performance because of unnecessary stress and tension among coworkers. Cohesiveness is thus a crucial and determining factor for team effectiveness.

• Beal et al., (2003), Evans and Dion (1991), Gully et al., (1995), Mullen and Copper (1994), Tekleab et al., (2009), and Wech et al., (1998) (see chapter 3, section 3.6.1.4) argue that the degree to which team members are comfortable and experience a feeling of belonging relates positively to team effectiveness or the level of team performance.

• Robbins and Judge (2009) (see chapter 3, section 3.6.1.2) posit that a team composed of individuals who enjoy working as part of a team are likely to be a high-performance team.

• Beal et al., (2003), and Mesmer-Magnus and DeChurch (2009) (see chapter 3, section 3.6.1.1) state that openly sharing information with teammates promotes positive climactic states (e.g. trust, cohesion), which ought to improve team socioemotional outcomes and, in turn, team performance.

**Improved customer service**

• Hackman (2002) (see chapter 3, section 3.3.1.7) argues that team effectiveness is a function of exceeding customer expectations in product/service delivery,
developing team capabilities over a period and satisfying team member needs, which leads to enhanced team performance.

**Improved organisational productivity**

- Gibson et al., (2009), Klein et al., (2009), and Spiegel and Torres (1994) (see chapter 3, section 3.8.5) maintain that team members need to work together in a team because successful participation improves leadership skills and morale of members as well as processes, procedures and productivity in the organisation.
- Gibson (2003), Jung and Sosik (2003), Tasa et al., (2007), and Robbins and Judge (2009) (see chapter 3, section 3.6.1.4) contend that team efficacy occurs when teams are confident and believe they can thrive. Successful teams’ views on productivity and future accomplishments increase, which, in turn, inspires them to work harder, ultimately leading to improved team performance.
- Margerison and McCann (1990) (see chapter 4, section 4.4.5), state that, when members realise their team members’ and own potential, they are given work activities they prefer doing. When members work in areas that are aligned with their preferences, they perform better.
- Colenso (2000) (see chapter 2, section 2.5.1) maintains that organisations using teams have shown that their effective use can bring significant improvements in productivity, creativity and employee satisfaction.
- Neethling (2005) (see chapter 4, section 4.5.3) also argues that by using the whole brain methodology, organisations and their employees are better positioned to comprehend, predict and probably expand the outcomes and overall results of the organisation.

From the information gathered it is evident that the participants perceived the Neethling’s thinking style preferences instrument as a viable tool for enhancing team performance. Strong indications exist that teams perform better in terms of their internal team processes, leading, inter alia, to improved team outputs such as better communication, cooperation, understanding and relationships between team members. Participants also recognised that the team’s performance also leads to the
achievement of organisational results or outcomes, such as improved organisational productivity, profitability, organisational image and customer satisfaction.

The information further shows that the tool is practically implementable (to the extent that participant 1 perceived it as part of their DNA) and that the visible advantages relating to team performance far outweigh the disadvantages and/or risks thereof.

It is interesting to note that the advantages of Neethling’s thinking style preferences identified in this study as well as the information gathered from participants relating to Neethling's instrument as a viable tool for enhancing team performance, all correspond. The researcher was therefore able to conclude certainty that Neethling's thinking style preferences instrument can be used as a viable tool to enhance team performance.

7.2.3 Additional information gathered that did not form part of the scope of the study

As a result of the overwhelmingly positive feedback from the participants, the researcher was curious to determine the extent of the positive influence on key factors identified by the participants. See annexure D.

7.3 CONCLUSION

To achieve maximum clarity and understanding of the data, the researcher read through the data carefully, and identified the important concepts and recurring themes. Irrelevant data was discarded. The themes identified were grouped into two main themes with subthemes. That data was then compared with the literature review to ensure a better understanding. This study thus confirmed the assumption that Neethling’s thinking style preferences could be used as a useful tool to enhance team performance in a sales-driven organisation.

In the final chapter, the conclusions and limitations of the study are discussed and recommendations made for practice and possible future research.
CHAPTER 8

CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

8.1 INTRODUCTION

This chapter deals with the conclusions drawn in this study, limitations and recommendations for organisations in terms of the application of Neethling’s thinking style preferences to enhance team performance. The chapter also touches on the possibility of conducting further research on the topic.

The findings and recommendations discussed below are based on the perceptions and experiences of six regional managers and 13 employees from the F&I department in a sales-driven organisation (19 participants in total).

The research objective of the study was as follows: To explore the perceptions of a group of employees in a sales-driven organisation on how application of Neethling’s thinking style preferences influence team performance, following their participation in Neethling’s thinking style preferences training.

The researcher conducted a literature review to collect information on the problem and objectives. A research problem was identified and the research objective then formulated. A nonprobability purposive sample technique was used to identify participants for the two focus group interviews and six individual interviews. The focus group and individual interviews were conducted to elicit the required information in order to achieve the research objective.

During the data analysis phase, reflexivity, bracketing and intuiting were implemented which formed the basis for the data analysis. The two main themes that emerged during the focus group and in-depth individual interviews were the participants’ perceptions of Neethling’s thinking style preferences and experiences
relating to Neethling’s thinking style preferences instrument for enhancing team performance. Subthemes were also identified (see annexure C).

Lincoln and Guba’s (1985) model of trustworthiness for qualitative research was used to ensure the trustworthiness of all the data gathered. The four criteria of trustworthiness, namely credibility, transferability, dependability and confirmability, were applied. The two main themes with subthemes emerged in the data analysis, and guidelines were formulated to facilitate future transformation.

8.2 CONCLUSIONS

From the results presented and discussed in chapter 7, conclusions were drawn with regard to the objective that had been formulated for the study. The two main themes were interrelated. The conclusions are discussed below, according to the themes.

8.2.1 Conclusions pertaining to the participants’ perceptions of team performance related to Neethling’s thinking style preferences

8.2.1.1 Subtheme 1.1: Perceptions of the definition of Neethling’s thinking style preferences

It was concluded that the participants perceived Neethling’s thinking style preferences as the behaviour led by their thinking and understanding of the thinking preferences of others. A full discussion of the definition of Neethling’s thinking style preferences was provided in the literature (see chapter 4, section 4.5), and it was shown that the results obtained from the participants supported the findings in the literature.

8.2.1.2 Subtheme 1.2: Different dimensions of thinking style preferences (brain profiles)

It was concluded that the participants were aware of and provided sufficient examples relating to the different thinking style preferences (brain profiles) (section 7.2.1.2). They were also able to elaborate on the difference between the left and
right brain, as well as the four brain thinking quadrants (L1, L2, R1 and R2). They showed valuable insight into the different thinking styles and the thinking preferences associated with these styles. The participants' perceptions of Neethling's different thinking style preferences support the findings in the literature.

8.2.2 Conclusions pertaining to the participants’ experiences related to Neethling’s thinking style preferences instrument for enhancing team performance

8.2.2.1 Subtheme 2.1: Advantages of applying Neethling’s thinking style preference knowledge with regards to team performance

It was concluded (see section 7.2.2.1) that the participants experienced a number of advantages when applying their knowledge of Neethling's thinking style preferences. These advantages were both inside and outside the team, such as

- better understanding of people;
- better conflict management in the team;
- improved self-awareness;
- better communication with team members and other key stakeholders;
- increased cohesion/improved relationships;
- better customer services; and
- improved productivity.

It was clear from the information gathered from the participants that they had reached a satisfactory degree of consensus on the advantages of Neethling’s thinking style preferences for team performance. The participants' perceptions of the advantages of Neethling's different thinking style preferences supported the findings in the literature.

Evidence provided in the findings concluded that Neethling's thinking style preferences can be used to enhance team performance in an organisation as the participants’ perceptions and experiences of the advantages of these preferences and the findings in the literature on effective teams concurred.
8.2.2.2 Subtheme 2.2: Disadvantages of applying Neethling’s thinking style preference knowledge with regards to team performance

Minor disadvantages for the organisation were highlighted by the participants regarding knowledge of Neethling’s thinking style preferences. The following disadvantages emerged in the study:

- avoiding tasks;
- labelling; and
- incorrect assessments.

Since this is the first time that a study had been conducted on Neethling’s thinking style preferences instrument for enhancing team performance, the researcher could not link any of the disadvantages that emerged in this study to relevant information in the literature.

The researcher contends that by attending more training workshops, and obtaining more exposure to applying Neethling’s thinking style preferences in practice, the disadvantages would be easy to manage.

8.2.2.3 Subtheme 2.3: Neethling's thinking style preferences instrument as a viable tool for enhancing team performance

It was concluded in section 7.2.2.3 that the information gathered from the participants in table 7.4, corresponded with the advantages of Neethling's thinking style preferences, identified in section 7.2.2.1. The participants concurred that Neethling’s instrument is a viable tool for enhancing team performance as it

- improves understanding among team members;
- enhances communication between employees;
- increases team cohesion/improved relationships;
- improves customer service; and
- increases organisational productivity.
It was evident that the participants perceived Neethling’s thinking style preferences instrument as a viable tool for enhancing team performance. There were strong indications that the team performed better in terms of their internal team processes, leading to team outputs such as better communication, cooperation, understanding and relationships between team members. Participants also recognised that the team’s performance led to the achievement of organisational results or outcome goals such as improved productivity, profitability, organisational image and customer satisfaction.

The information further indicated that the tool is practically implementable (to the extent that team members perceived it to be part of their DNA) and that the visible advantages relating to team performance outweighed its disadvantages and/or risks.

8.3 INTEGRATION

Figure 8.1 is a model summarising the effects of Neethling’s thinking style preferences instrument on team performance obtained from data gathered in this study.

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**Figure 8.1.** Conceptual model relating to Neethling’s thinking style preferences instrument application to team performance

**Source:** Researcher’s own compilation
The inputs consist of Neethling’s thinking style preferences instrument competence, which includes the skills, knowledge and personal attributes team members gained after training. These inputs also entail the team members’ application of the competence gained during training.

When team members applied the competence gained, the research showed improved team performance as an output. This manifests in improved self-awareness and a better understanding of people. It also leads to better conflict management and improved communication between team members and other stakeholders. Team cohesion, which includes team members’ relationships, cooperation and interaction, also seems to improve. Enhanced team member productivity and improved service towards customers were also evident in the results.

When a team’s performance improves, the results show that improved team outcomes have a positive effect on overall organisational outcome goals. These outcome goals include improved customer satisfaction, profitability, organisational image and organisational productivity.

Hence Neethling's thinking style preferences instrument as a viable tool to improve team performance can lead to the achievement of overall organisational success.

8.4 PERSONAL EXPERIENCES DURING THE STUDY

The researcher found this study personally, academically and professionally enriching. It enabled her to gain a better understanding of the effect that Neethling’s thinking style preferences have on team performance in a sales-driven organisation. A future challenge would be to conduct further studies in this field.

8.5 STRENGTHS OF THE STUDY

It was possible to interview participants at their workplace in a boardroom in which disturbances were limited. This allowed the participants to feel in control of the situation, and the researcher could observe them in their work environment.
The participants were friendly and cooperative. They were willing to share information and as soon as they realised that the researcher was not judgemental and interested in what they had to say, they shared their experiences more openly.

The researcher is experienced in this field and is an accredited Neethling whole brain practitioner. She is thus familiar with Neethling’s practices and was more accessible to the participants. Although the researcher is an accredited whole brain practitioner, it should be emphasised that bias was restricted and this research reflects the participants’ personal perceptions only. The researcher did not allow preconceived ideas to influence the conclusions and findings.

8.6 POTENTIAL CONTRIBUTION OF THE STUDY

The study represents original research and should contribute to the following:

- new knowledge in the HRM field and team performance in particular;
- new knowledge in the HRM field with regard to the application of Neethling’s thinking style preferences; and

Since the researcher could find no previous research on Neethling’s thinking style preferences related to team performance, this study could broaden the knowledge base and add significant academic value to this research field.

8.7 LIMITATIONS

Certain limitations such as researcher bias, the participant effect and limitations relating to data collection and analysis were identified in this study.

8.7.1 Limitations relating to researcher bias, the participant effect and data collection and analysis

This qualitative research relied on the researcher’s judgements of data gathering and analysis. The researcher was the primary data collection instrument during the unstructured focus group and in-depth individual interviews and analysis of the data.
The possibility of bias was overcome by appointing an experienced researcher who reviewed the transcribed interviews and who was involved in the analysis of the data.

The researcher’s long-standing association with Neethling’s whole brain practices might also have increased bias. To prevent this, reflexivity, intuiting and bracketing were implemented in all the phases of the study.

The participant effect could also have been another limitation. Private and personal experiences might have been withheld during the data gathering process. This may also have biased the data and research findings. The researcher used triangulation (focus group interviews and individual interviews) to limit the participant effect. Data collected during individual interviews concurred with the information gathered during the focus group interviews, which also increased the credibility of the study.

8.7.2 Limitations relating to Neethling’s thinking style preferences to enhance team performance in an organisation

More in-depth research should be conducted to investigate the effect of Neethling’s thinking style preferences relating to disadvantages in organisations. This study involved too few coloured and Indian men and Indian women.

8.7.3 Limitations relating to the participating organisation

The findings of this study cannot be generalised to other organisations because the study was only conducted in one sales-driven organisation in Gauteng. Should other researchers consider transferability of the findings, the context in which the study was done, should be taken into account.

8.8 RECOMMENDATIONS

Based on the conclusions drawn from the findings of this study, recommendations could be made for implementing Neethling’s thinking style preferences instrument in organisations in order to enhance team performance and conduct further research.
8.8.1 Recommendations for further research

Since this study was only conducted in a sales-driven organisation, it is recommended that the research be repeated to include more differentiation of organisations and a larger sample group.

It is also recommended that a comparative study be conducted which includes international organisations.

8.8.2 Recommendations relating to the implementation of Neethling’s thinking style preferences to enhance team performance in an organisation

The main aim of this study was to explore employees’ perceptions of team performance related to Neethling’s thinking style preferences. The sample comprised regional managers and employees working in the F&I department of a sales-driven organisation.

From the information gathered it is evident that the participants perceived Neethling’s thinking style preferences instrument as a viable tool for enhancing team performance. Strong indications exist that teams performs better in terms of their internal team processes, such as better communication, cooperation, understanding and relationships between team members, and improved team productivity and customer service. Participants also recognised that better team performance enhances organisational results or outcome goals, such as improved organisational productivity, profitability, organisational image and customer satisfaction.

The information further indicated that the tool is practically implementable and that the visible advantages relating to team performance far outweigh the disadvantages and/or risks.

The researcher therefore recommends that employees be trained in Neethling’s thinking style preferences to enhance team performance in the organisation, which will ultimately contribute to organisational success.
8.9 CONCLUSION

This chapter focused on the conclusions relating to the research findings. The findings and recommendations were discussed according to the two main themes derived from the study. Possible future studies and the strengths and limitations of the research were also highlighted.

From the literature, it is clear that teams play a crucial role in organisations and can assist with the problems and challenges facing by South African organisations. Any attempt to improve teamwork by adopting new approaches, such as Neethling’s thinking style preferences, could add value to team performance and ultimately organisational success. Although numerous studies were found on personality and mental model constructs, the researcher could not find any research on the role of Neethling’s thinking style preferences in improving team performance in organisations in the literature, and she therefore believes that this study could make a substantial contribution to the field of study.

The researcher trusts that this study will also contribute to the field of human resource management, and also broaden the knowledge base and add significant academic value to this research field.
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Informed consent for participation in an academic research study

Department of Human Resource Management

TITLE OF THE STUDY:
“Neethling’s thinking style preferences instrument to enhance team performance in an organisation in South Africa”

Research conducted by:
Ms C. Swart (41073002)
Cell: 082 551 6665

Dear Respondent

You are invited to participate in an academic research study conducted by Christine Swart, a master’s student in the Department of Human Resource Management at the University of South Africa.

The purpose of this study is to explore perceptions of employee’s team performance related to Neethling’s thinking style preferences in an organisation.

Please note the following:

- Your name will not appear in the research and the answers you supply will be treated as strictly confidential. You cannot be identified in person on the basis of your answers.
- Your participation in this study is of vital importance to me. You may, however, choose not to participate and you may also stop participating at any time without any negative consequences.
- The results of the study will be used for academic purposes only and may be published in an academic journal. I will provide you with a summary of the findings on request.
- The interview will only take approximately one hour.
- The records will be kept for five years for publication purposes, after which they will be permanently destroyed (hard copies will be shredded and electronic versions will be permanently deleted from the hard drive of my computer).
- You will not be reimbursed or receive any incentives for your participation in this study.
- Please contact my supervisor, Professor Y. T. Joubert (cell: 082 721 9862) if you have any questions or comments on the study.

Please sign the form to indicate that you
- have read and understand the information provided above
- give your consent to participate in the study on a voluntary basis

___________________________  ________________________
Respondent’s signature Date
INTERVIEW QUESTIONS (FOCUS GROUP AND INDIVIDUAL INTERVIEWS)

1. In your words, what are Neethling’s thinking style preferences?

2. In your experience, did application of the Neethling’s thinking style preferences knowledge, lead to any advantages with regard to your team’s performance? Please elaborate.

3. In your experience, did the application of the Neethling’s thinking style preferences knowledge, lead to any disadvantages with regard to your team’s performance? Please elaborate.

4. In your opinion, would you say that the Neethling’s thinking style preferences instrument is a viable tool for enhancing team performance? In what way? Please explain.

Please note that the same questions will be asked during the individual and focus group interviews. I use different data gathering methods for triangulation purposes.
### ANNEXURE C

**THEMES AND SUBTHEMES IDENTIFIED IN THE STUDY**

<table>
<thead>
<tr>
<th>Theme 1</th>
<th>Perceptions of Neethling’s thinking style preferences</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subthemes</strong></td>
<td></td>
</tr>
<tr>
<td>1. Definition of Neethling’s thinking style preferences</td>
<td></td>
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<tr>
<td>2. Different dimensions of thinking style preferences</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Theme 2</th>
<th>Experiences relating to Neethling’s thinking style preferences instrument for enhancing team performance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Subthemes</strong></td>
<td></td>
</tr>
<tr>
<td>1. Advantages of applying Neethling’s thinking style preferences knowledge with regard to team performance</td>
<td></td>
</tr>
<tr>
<td>2. Disadvantages of applying Neethling’s thinking style preferences with regard to team performance</td>
<td></td>
</tr>
<tr>
<td>3. Neethling's thinking style preferences instrument as a viable tool for enhancing team performance</td>
<td></td>
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</tbody>
</table>
Although not part of the scope of the study, the researcher capitalised on the opportunity to gather more information from the two focus groups for the following reasons:

1. The participants were all available.
2. The Diagknows System™ was available.
3. The contracted facilitator was available.
4. There was sufficient time to conduct a rating on summarised facilitated content.
5. The participants were eager to participate in the electronic rating on the facilitated content.
6. The participants indicated that summarised concepts all had a positive influence on team performance and the researcher wanted to capitalise on the opportunity to test the extent of the positive influence of the summarised concepts on team performance.

See figures 1 and figure 2 below, which indicate the results captured by the Diagknows™ system of participants in focus group 1 and focus group 2, respectively.
Results of focus group 1:
The aggregate result of focus group 1 show overall positive scores the lowest item scoring 71.5%. The five top scoring items in priority order are as follows:
• improved self-awareness (92.83%)
• improved self-management (92.83%)
• better understanding of clients (85.67%)
• improved relationships with clients (83.33%)
• improved relationships between team members (83.33%)

The lowest scoring items in priority order are as follows:
• better conflict management (71.50%)
• saving time because of knowledge of others (71.50%)
• better communication with team leaders (71.50%)
• improved relationship between managers (73.83%)
Results of focus group 2

The aggregate result of focus group 2 show overall positive scores the lowest item scoring 69.5%. The three top scoring items in priority order are as follows:

- improved understanding of other people/customers (94.50%)
- better understanding of management styles (94.50%)
- better self-awareness/understanding of self (91.67%)

The lowest scoring items in priority order are as follows:

- better cooperation (69.50%)
- better collaboration (72.17%)

The researcher made use of the Diagknows™ interactive audience response system in the focus group interviews to evaluate the influence that Neethling’s thinking style preferences have on team performance. Key features of the system are as follows:
The Diagknows™ software

DIAGKNOWSTM is an interactive audience response system allowing its users to gather data from group participants assembled in a venue for, inter alia others, decision making, prioritising, gap analyses, surveys, monitoring and evaluations and performance assessment applications (Swart, 2017).

Data is gathered through a seamlessly integrated wireless network of the SUNVOTE M52 keypads.

Group results are instantly available from participants, ensuring high levels of interaction, acceptance, quality and productivity of focus group sessions, meetings, workshops or seminars (Swart, 2017).

The software was designed by Johan Swart, principal facilitator of Group Dynamics Facilitators, as a value-adding tool for researchers, managers, consultants and facilitators in settings where participants assemble in a venue. It is a unique tool with features variety unrivalled in the world (Swart, 2017).

The DIAGKNOWSTM Software supports the following applications (Swart, 2017):

- group decision analyses
- prioritisation (various types)
- gap analyses
- surveys with a rating scale
- multiple-choice surveys
- assessments

The use of “DIAGKNOWSTM” offers several advantages:

- anonymous input from participants
- immediate availability of results, exportable to Excel
- improved productivity
- high acceptance of results
- improved quality of results
• enjoyable and engaging sessions

“DIAGKNOWS™” software value proposition:

• It is the only solution able to offer such wide range of functionality and applications in South Africa and probably in the world.
• The in-venue solution fosters high quality and high acceptance of group decisions in the most productive way.
• There is instant availability of group results or cross-sections of results, which are exportable to Excel.
• Data collection productivity and data analyses capability save you time and money.

The Philosophy behind the DIAGKNOWS™ software is as follows:

• It is an open system allowing users to create answer sets based on their needs.
• The facilitator of a group controls the process and the participants provide the content.
• It can be used in settings where participants are assembled in a venue.
• It is a productivity tool allowing quick and anonymous data capturing from respondents.
• There is immediate feedback of results.

The information gathering process was conducted as follows for each focus group:

The facilitator summarised the answers provided by the participants in the focus groups into key concepts agreed upon by participants. The researcher documented the concepts on a real-time basis and projected them on a screen, visible for all participants to view. Duplication and overlapping of content were removed as agreed by participants on a real-time basis. The real-time documentation approach of facilitated content contributed to transparency of information and inclusivity among participants. The summarised key concepts were entered into the Diagknows™ system.
The concepts were rated on the strength of influence of Neethling's thinking style preferences on team performance on a six-point Likert type scale, where 1 = no positive influence, and 6 = high positive influence on team performance. Electronic voting keypads were given to each participant. This allowed for total anonymity of participants' score as no participants' names were required. Each concept was projected on the screen and each participant rated the influence based on his/her experience.

After participants had rated all the concepts, feedback of the generic results was immediately shown to participants. The researcher noted that the participants enjoyed the electronic voting and appreciated the quick feedback of results.