

A management framework for regional and school-based networks for principals in diverse contexts

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Thesis submitted for the degree *Doctor Philosophiae* in
Education Management at the Potchefstroom Campus of the
North-West University

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October 2016

SOLEMN DECLARATION

I hereby declare that this research study is my own intellectual property and is submitted in fulfilment of the requirements for the degree

PHILOSOPHIAE DOCTOR IN EDUCATION MANAGEMENT

at the Faculty of Education Sciences
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André Smith

Signed: May 2016
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ACKNOWLEDGEMENTS

This research would not have been possible without the help of the following people:

- My heavenly Father, who is my anchor in life and in who I always find my strength.
- My wife, Rosa, and two children, Anro and MC, for their endless loving support and patience during the research.
- My parents and parents-in-law for their continuous support and encouragement.
- Dr H.J. Van Vuuren, my supervisor, for his mentorship, assistance and support during the study.
- Ms J.W. Breytenbach of the Statistical Consultation Services of the North-West University (NWU), Potchefstroom Campus for her assistance and guidance in analysing the research results.
- The North-West University (NWU) for the financial aid in order to conduct the research study.
- Ms M. Robbertse for the professional language and bibliographical editing of the text.
- The principals of the Thabo Mofutsanyana Education District (TMED) who participated in the study.
- The Free State Department of Education (FSDOE) for the permission granted to conduct this research.
- My colleagues at school for their encouragement throughout the study.
- The examiners for your input, time and willingness to examine this study.

SUMMARY

Networks can be defined as a system or process that involves different cooperating individuals or groups that are interconnected. Furthermore, *networking* can be described as the activity of exchanging ideas, information and services amongst individuals or groups. Networks also include the establishment of partnerships between associated organisations and people. When partnerships are engaged in properly, there is a definite positive outcome for all involved.

Professional development entails the continuous training and development of someone's according to his/her qualified field of expertise. The continuous professional development of a person should take high priority as it will ensure longevity in his/her career and contribute to the improvement of the organisation. Professional development opportunities for school principals in the South African education system is limited, unstructured and fragmented. Unlike countries like the USA and UK, there are no compulsory school management and leadership training or certification to become a principal. High demands are placed on school principals with little or no support in terms of development programmes to acquire the necessary abilities and expertise.

The power of learning networks can't be underestimated. Using networks for development purposes were tested and tried in the last two decades with useful effect. Therefore, the use of networks for the professional development of school principals can also be used with great effect, but it should be well planned and directed. Networks, formal or informal, should be properly established, managed and sustained in order to realise the desired outcomes and achieve the objectives of the network. Networks that are well organised and engaged in correctly can be advantageous to the personal and professional development of school principals, and ultimately lead to school improvement and the education system as a whole.

What is interesting from the results of the study is that it was indicated that the following factors might influence networks: difference in years of experience as a school principal, age of the network participant, home language, difference in education level of the principals, type of school the principal is working in and the area in which the school is situated. Furthermore, it was also indicated that diversity aspects (being different) also need to be taken into account when engaging in professional development networks in order for it to be properly functioning. A Network Framework for Professional Development (NFPD) was established to assist

principals with developing and engaging in network activities towards their own professional development and school improvement.

KEYWORDS

1. Networks / Networking
2. Networking in education
3. Networking for schools
4. Networking for principals
5. Management of networks
6. Leadership
7. Educational leadership
8. Network leadership
9. Network strategy
10. Educational partnerships
11. Professional development
12. Diversity

OPSOMMING

Netwerke kan gedefinieer word as 'n sisteem of proses wat verskillende samewerkende individue of groepe wat onderling verbind is, insluit. Verder kan *om te netwerk* beskryf word as die aktiwiteit van onderlinge uitruiling van idees, inligting en dienste. Netwerke het ook te make met die vorming van vennootskappe tussen geassosieerde organisasies en mense. Wanneer vennootskappe goed bestuur word kan dit positiewe uitkomst vir alle partye inhou.

Professionele ontwikkeling behels die volgehoue, aaneenlopende opleiding en ontwikkeling van iemand in sy/haar veld van vakkundigheid. Die professionele ontwikkeling van enige persoon behoort hoë prioriteit te wees, omdat dit nie net tot voordeel van die persoon se langtermyn beroepsontwikkeling is nie, maar ook tot voordeel van die organisasie se verbetering strek. In Suid-Afrika is professionele ontwikkelingsgeleenthede vir skoolhoofde baie beperk, ongestruktureerd en gefragmenteerd. Anders as in lande soos die VSA en VK, is daar geen verpligte skoolbestuurs- en leierskapsopleiding of sertifisering wat 'n onderwyser moet ondergaan om as 'n skoolhoof aangestel te word nie. Daar word hoë eise aan 'n skoolhoof gestel, maar min of geen ontwikkelingsprogramme word aangebied om die nodige vaardighede en deskundigheid te verkry nie.

Die krag van netwerke om kundigheid te bekom kan nie onderskat word nie. Die gebruik van netwerke vir ontwikkelingsdoeleindes is die afgelope twee dekades getoets en aangewend met baie goeie resultate. Daarom kan netwerke ook gebruik word vir die professionele ontwikkeling van skoolhoofde, maar moet baie goed beplan en gestruktureer word. Alle netwerke, formeel of informeel, moet goed gevorm, bestuur en volgehou word om die gewenste uitwerking en doelwitte te behaal. Netwerke wat goed georganiseer is en reg hanteer word kan voordelig wees vir persoonlike- en professionele ontwikkeling van skoolhoofde en kan uiteindelik tot skoolverbetering en 'n beter onderwysstelsel lei.

Interessante resultate vanuit die data van die studie is dat die volgende faktore 'n invloed op die vorming van netwerke kan hê: verskille in jare ondervinding van skoolhoofde, ouderdom van skoolhoofde, huistaal, verskille in opvoedingspeil, tipe skool waarby die skoolhoof betrokke is en die area waarin die skool geleë is. Diversiteitsaspekte (verskille tussen mense) moet ook in ag geneem word wanneer netwerke vir professionele ontwikkelingsdoeleindes gevorm word. 'n Netwerk raamwerk vir professionele ontwikkeling (Network Framework for Professional Development (NFPD)) is daarom saamgestel om skoolhoofde te help met professionele ontwikkelingsaktiwiteite wat tot voordeel van hulleself en die skool kan strek.

SLEUTELWOORDE

1. Netwerke / Netwerk
2. Netwerke in die onderwys
3. Netwerke vir skole
4. Netwerke vir skoolhoofde
5. Bestuur van netwerke
6. Leierskap
7. Opvoedkundige- / onderwysleierskap
8. Netwerk leierskap
9. Netwerk strategie
10. Opvoedkundige vennootskappe
11. Professionele ontwikkeling
12. Diversiteit

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A management framework for regional and school-based networks for principals in diverse contexts

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May 2016

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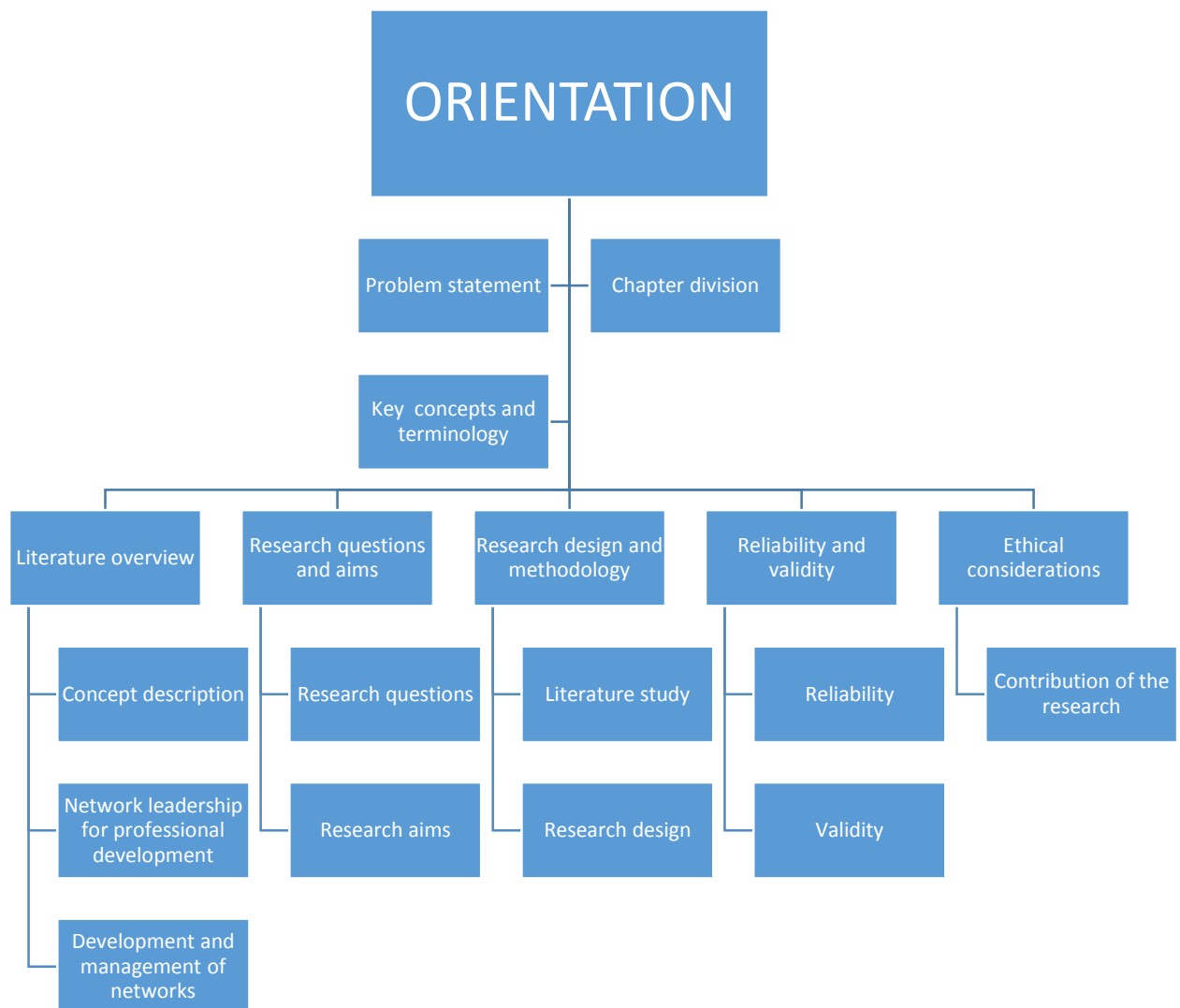
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CHAPTER 1

ORIENTATION



1.1 INTRODUCTION AND PROBLEM STATEMENT

Despite the complex challenges of leading schools in the 21st century, school principals work largely in isolation from their peers and there are not many opportunities available for professional development in school leadership and management (Neale & Cone, 2013:3). School principals need to interpret the complex demands of their jobs and determine how they will perform within the context of regional and national development conditions (Moolenaar, Daly & Slegers, 2010:661). Humada-Ludeke (2013:13) describes this performance in context as the evolving role of school leaders and managers in an era of accountability. Therefore they have to tap deeply into their own and the rest of the school community's potential, while approaching their job with the aim to improve the teaching and learning in schools within diverse contexts (Riggins Newby, 2004:6; NSDC, 2000:4). The realisation of the aforementioned requires specialised knowledge and skills to share, collaborate and cooperate with others within and outside their work environment as well as integrating lessons learnt in different spheres and diverse contexts in education. In essence, people don't live and work in isolation and need others for personal and professional growth as well as for the development of the organisation they find themselves in.

The emphasis on a collaborative approach is in line with the South African government's initiative of "*Working together to achieve more*". The collaborative approach manifests in particular in the South African education system as a crucial and integral part of the only national and professional development programme for school leaders and managers in the form of compelling and structured learning networks that promotes the sharing and exchanging of expertise, experiences and lessons learnt. For school leaders in particular, networking provides a sounding board for leading change and a safety net for providing support (Young, 2013:1).

The power of learning networks for professional development can't be underestimated. However, an initial literature search indicated a need for further research to investigate this collaborative approach in relation to the professional development of educational leaders and managers (Cassar, 2013:4; Neale & Cone, 2013:3-5; Van Jaarsveld, 2013:198; Kiggundu & Moorosi, 2012:230; Hoppe & Reinelt, 2010:616-618; Leithwood, Louis, Anderson & Wahlstrom, 2004:68). This particular vacuity in literature supports, amongst other aspects, the rationale for this research. Although the mentioned national and professional development programme for school leaders and managers, as presented by most of the Higher Education Institutions in South Africa, comprises of a compulsory network component, there is no proven or scientifically based management strategy for the implementation of the required learning network component. Each Higher Education Institution implements the school leadership and

management programme on a trial and error basis. The absence of a proven framework or strategy for the implementation and management of a particular learning component for the professional development of educational leaders and managers constitutes the conundrum of this proposed study.

The preceding paragraph provides the introduction for the problem statement of this research i.e.: *What management framework for a regional and school-based network can be developed as part of the professional development for school principals in diverse contexts?*

1.2 KEY CONCEPTS AND TERMINOLOGY

The following key concepts will be clarified for the purpose of the research study:

- **Networks**

A network is defined as a system or process that involves a number of cooperating individuals, groups, places or organisations that are interconnected (Collins English Dictionary, 2013; Macmillan Dictionary, 2013; Webster's New World College Dictionary, 2013; Wordsmyth English Dictionary, 2013).

- **Networking**

Networking is described as the activity of exchanging ideas, information, services and advice among individuals, groups or institutions regarding common interests (Macmillan Dictionary, 2013; Moore & Rutherford, 2011:70). Furthermore, networking is defined as the cultivation of productive relationships for employment or business (Merriam-Webster Online Dictionary, 2013).

- **Partnerships**

A partnership is a relationship usually involving close cooperation between parties having specified and joint rights and responsibilities (Merriam-Webster Online Dictionary, 2013). A partnership is the collaborative association and affiliation of different individuals and organisations towards a common goal. Networks include the establishment of partnerships with associated organisations and individuals (Cassar, 2013:5; Mathibe, 2007:531; Jervis-Tracey, 2005:291).

- **Educational Leadership**

Leadership has to do with management, control, guidance, respect and direction (Booyesen, 2013:1). An educational leader has to ensure effective teaching and learning and establish sound relationships among different stakeholders of the school (Prinsloo, 2003:141). An educational leader acts firstly as a leader who directs,

motivates and inspires others, and secondly as a liaison officer who networks with individuals and groups of people in and out of school (Van Deventer, 2003(a):69).

- **Professional development**

Professional development entails the continuous training and development of a person in his/her qualified field of expertise. It refers to the acquisition of skills, knowledge, qualifications and experience, both for personal development and for career advancement (Macmillan Dictionary, 2013).

- **Diversity**

Diversity can be described as being different. It can also refer to variety or assortment. Diversity incorporates and embrace different aspects, e.g. opinion, values, beliefs, ability, gender, socio-economic class, language, culture, etc. that make people unique (Smith, 2012:3,19-21).

- **School**

A school is an institution for educating children or a place where children go to be taught (Macmillan Dictionary, 2013). A school also includes the buildings that are used for instruction as well as all aspects of school life, i.e. extra-curricular activities.

The key terminology for this study was briefly explained above. Taking these key concepts into account, a review of the literature will be presented in the following section.

1.3 LITERATURE OVERVIEW

The literature review consists of three sections: firstly, an overview of the concept of networks in the context of this research is outlined. Networks and networking will thus be elucidated and related concepts clarified to ensure a common understanding of the key terminologies of the intended research. Secondly, the review covers leadership in relation to networking in education. The review reveals that the establishment and maintaining of networks are viewed as indispensable for the professional development of school leaders and managers. The third section, which concludes the literature review, explores the theories, models and strategies for the development and management of effective networks for leaders and relates it to education.

1.3.1 Concept description

Networking is a relevant aspect of organisations in society and is considered to be essential for the success of an organisation. For the sake of this study, I briefly provide an overview of two interrelated concepts, namely *networks* and *networking*. As indicated in the previous

section *networks* are defined as systems or processes that involves a number of cooperating individuals, groups, places or organisations that are interconnected. Additionally, networks include the establishment of partnerships with associated organisations and individuals. *Networking* is described as the activity of exchanging ideas, information, services and advice among individuals, groups or institutions regarding common interests. Furthermore, networking is defined as the cultivation of productive relationships for employment or business. Networking also refers to related expressions such as a set of connections, structured arrangements, set of contacts, interactions and relationships (par. 1.2).

Inter-organisational networks are understood to be a specific cooperation by several organisations designed to cover a longer period of time for the attainment of jointly stipulated objectives and added value for the individual participants (Bienzle, Gelabert, Jutte, Kolyva, Meyer & Tilkin, 2007:8). Muijs, West and Ainscow (2010:5) confirm the previous descriptions, but suggest a broader definition for networking when linked to education. The authors propose the following definition: *“At least two organisations working together for a common purpose for at least some of the time”*. Taking all of the above into consideration the definition of Wohlstetter and Smith (2003:399) best applies to networks and networking in schools: *“Schools working together in a collaborative effort would be more effective in enhancing organisational capacity and improving learning than individual schools working on their own”*. The latter conceptual description was accepted as a point of departure for this research.

The literature revealed that many authors like Rauch (2013:322), Townsend (2013:358); Kiggundu and Moorosi (2012:217), Rajagopal, Joosten-ten Brinke, Van Bruggen and Sloep (2012:1), Tafel-Viia, Loogma, Lassur and Roosipold (2012:176), D’Souza (2010:11), Evans and Stone-Johnson (2010:204), Muijs *et al.* (2010:16-23), Hadfield and Chapman (2009:24), Kubiak (2009:240), Edge and Mylopoulos (2008:152), Young (2008:2), Bienzle *et al.* (2007:10-13), Jackson (2006:284-288), Henderson (2005:1-2) and Restine (1997:126) look into the nature, characteristics and complexity of networks and networking. This analysis of the literature is done to establish how successful networks function. What is clear from the above authors’ viewpoints is that networks can only succeed in the spirit of true reciprocal relationships towards achieving individual or shared goals and that the positive aspects exceed the negative aspects of networks to a great extent. By taking into account the viewpoints, ideas and beliefs of the authors in this paragraph, it can be concluded that networks consist of interrelated interactions, collaboration, partnerships and relationships that are reciprocal to the benefit of all stakeholders. Furthermore, networks also need to be created proficiently in order for it to succeed in its purpose, thus the rationale for this research.

The literature further revealed that networks also involve the establishment of partnerships. Partnerships between schools and other role players should aim to give practical support on transforming education by building schools in partnership with businesses and the wider community (Williams, 2014:5; Van der Berg, 2013:12-13; Woods, Armstrong, Bragg & Pearson, 2013:763; Rose, 2012:84; Smith, 2012:128; Haydon, 2007:37; Price, 2007:18; Carrington & Robinson, 2006:326-327; Lunenberg & Irby, 2006:328; Sigford, 2006:70; Botha, 2004:242; Chadwick, 2004:80; Reese, 2004:18; Riggins Newby & Hayden, 2004:2; Van Deventer, 2003(b):260; Cairney & Ruge, 1999:3; Potgieter, Visser, Van der Bank, Mothata & Squelch, 1997:8; Lieberman, 1996:54). There are some examples of partnerships where the programmes that impacted on non-educational aspects of education, in return had positive outcomes on educational aspects, i.e. teaching and learning. Authors like Cassar (2013:5), Humada-Ludeke (2013:8), Jackson (2006:274), Jervis-Tracey (2005:291) and Mathibe (2005:532) promote the creation of *Networked Learning Communities (NLC's)*, which works on the basis of collaborative enquiry for school improvement, which can stimulate innovation and facilitate knowledge transfer. Partnerships with stakeholders in education correlate with the South African government's *Quality of Learning and Teaching Campaign (QLTC)* whereby all stakeholders of a school pledge to ensure collaboration and quality education for learners (DBE, 2012:3). These concepts will be elucidated in chapter 2 of the research study (par. 2.4).

There are many advantages for educational leaders to be part of networks. These advantages include, among others, encouragement towards distributed leadership, greater learning and collaboration for solving complex problems, development of new innovations, provision of resources and support for leaders, increase the scope and scale of the impact leaders can have individually and collectively, and contribute to learning and development of school leaders (Hadfield & Chapman, 2012:110; Rieckhoff & Larsen, 2011:69-70; Evans & Stone-Johnson, 2010:203; Hoppe & Reinelt, 2010:600; Jolink & Dankbaar, 2010:1437; De Lima, 2008:160; Donaldson, Bowe, Mackenzie & Marnik, 2004:539; Wohlstetter, 2003:399; Wohlstetter & Smith, 2000:513; Restine, 1997:125) (par. 2.4.3). The preceding paragraphs elaborate on the importance of a study of this nature. Thus, leadership and professional development in relation to networks will be the next focus of this literature overview.

1.3.2 Network leadership for professional development

Leaders need to have certain attributes and skills to lead an organisation successfully. Effective leadership is an ongoing process of learning, practising, sharing knowledge and communication of shared values (Rungtongarmcharoen, 2013:133-135, April & April, 2007:214). Educational leadership is dynamic in which networking, if implemented and

managed effectively, can play a significant and crucial role to assure quality teaching and learning. Educational leaders have to be trained and developed in many leadership and management strategies. According to Prinsloo (2003:141) and Van Deventer (2003(a):69) an educational leader has two major responsibilities, namely to direct, motivate and inspire others in order to ensure effective teaching and learning, and secondly to establish sound relationships among different stakeholders by means of networks. Principals, as educational leaders, need to make a concerted effort in order to develop relations with associated individuals and organisations, because the matter of networks is regarded by many as a much needed entity of an organisation. Mathibe (2007), Mestry and Singh (2007), Van der Westhuizen and Van Vuuren (2007) and Botha (2004) are all campaigning for a professional development programme for educational leaders. School leaders should build a close relationship with the community and should be more responsive towards community expectations. They have an important role in connecting schools with the external world (Botha, 2004:240-241). To elaborate further on this point, Mathibe (2007:536) states that school principals must be able to market school products to the outside community.

Evans and Stone-Johnson (2010:218), Reinelt (2010:1), Hadfield (2007:260), Jopling and Spender (2006:20) and Lieberman (1996:53) refer to the term “*network leadership*” (par. 3.4). This type of leadership, unlike most conventional approaches to leadership, is collective, distributed, bottom-up, facilitative, linking and emergent. Although many leaders and organisations find it challenging to adopt a network approach to leadership, leaders need to expand their mindsets in order to see the power of networks. Muijs, Ainscow, Chapman and West (2011:162) are of the opinion that successful leadership in networks require additional leadership roles and skills, i.e. the building of group identity, trust and the fostering of mutual knowledge. Reese (2004:20) argues that the forming of networks is essential to ensure strong leadership. Henderson (2005:1) echoes the aforementioned by stating that great networkers make great leaders, who create simple systems that enable them to connect with others, stay connected and create valuable lifetime connections with key people. Leimbach (2013:1) believes that successful managers spend 70% more time networking than their less successful counterparts. Through networks, schools and school leaders are drawn into relationships, therefore they are closer to communities. Mestry and Singh (2007:483-484) are also of the opinion that the style of leadership plays a crucial role in cementing lasting and co-operative relations with the community and other role-players (par. 3.2.4). The building of sound networks is therefore necessary for school leaders. This aspect links to the rationale for the study.

Another feature of effective networks is that they provide numerous opportunities for leadership to emerge and develop because of the interaction and flow of knowledge that take place (Buttram & Farley-Ripple, 2013:13; Rieckhoff & Larsen, 2011:63, 71; Anon, 2006:10; Restine, 1997:127; Lieberman, 1996:54). The focus of network leaders is to build capacity for individuals to flourish and for schools to continually change, innovate and improve because of the interactions between people and the flow of expertise and resources within an organisation. Successful networks challenge the participants to gain influence, broaden expertise, learn new skills and find purpose and balance in the relationship with others (Tafel-Viia *et al.*, 2012:176; Cross & Thomas, 2011:149; Moolenaar *et al.*, 2010:661; Penuel & Riel, 2007:615; Jopling & Spender, 2006:20). Thus, having a greater appreciation of educational reform and a positive attitude towards educational change. Authors like Evans and Stone-Johnson (2010:218) see a need for more research and investigation in the field of network leadership. As part of this research, the development of networks to enhance school leadership was looked into (chap. 2 and 3). The next section of the literature overview will focus on the existing literature for the development and management of networks.

1.3.3 The development and management of networks

This part of the review will focus on the theories, models and strategies for forming networks and effective networking. Effective leadership models and strategies concerning networks, need to look at involving all stakeholders in education and create interrelated partnerships that are sustainable (Smith, 2012:128). In South Africa there are concerted efforts to implement the *Education Leadership and Management (ELM) and Education Management Development (EMD) strategies* through the *Advanced Certificate in Education (ACE)* course presented by several Higher Education Institutions (Mathibe, 2007:529; Mestry & Singh, 2007:477; Van der Westhuizen & Van Vuuren, 2007:431). However, there is, among other aspects, still much to be done as there are little or no coherence between these service providers (Mestry & Singh, 2007:484) (par. 1.1). Botha (2004:241-242) argues that there should be a “*new professionalism*” for school principals because of the changing attributes and strategies that are needed for educational leaders of the new millennium. Bienzle *et al.* (2007:124) promotes the sustainability of networks, therefore provides a checklist for developing sustainability strategies for networks. Rajagopal *et al.* (2012:4,7) developed a “*Personal Professional Networking Model*” and are of the opinion that networking is linked to a deeper metacognitive level and that one’s attitude towards networking is the most important factor in acquiring and activating networks with role players (par. 3.4.3). Briner and Hodgson (2003:8) advocate a *Learning Network of Leadership Coaches* which is based on three interactive activities, namely: joint enterprise, mutual engagement and a shared repertoire of best practices or experiences, whereby people are continuously learning from one another. Hadfield and

Chapman (2009:106) developed an *outline model of collaborative capacity building* whereby leaders must ultimately be able to develop network leadership across the different groups they are working in. Humada-Ludeke (2013:43) promotes a *model for Professional Learning Communities* which was adapted from the DuFour model of Professional Learning Communities (DuFour & Eaker, 1998). With this model the author aims at building the collective capacity of school leadership. Leimbach (2013:2) suggests a strategy with eight critical skills for effective networking. Henderson (2005:3-7) proposes six strategies that master networkers use. These strategies include communication and connecting, giving recognition, empowering others, role modelling, strategic alliances and mastermind groups. Jallade (2011:7) looked into international cooperative programmes and to the extent those programmes lead to effective cooperation in European education. Riggins Newby and Hayden (2004:7) share an action plan that was proposed to help principals in Buffalo, New York in the USA to focus on the positive image of the principal through networking. With the above authors' opinions in mind it is clear that networks can have positive effects on the development of school leadership, which is the foundation of this research.

Networks can also be used for systemic reform. An example of this practice can be found in a study that was done in Rural East Alabama in the United States of America where networking was used for systemic reform efforts in science education at a low cost (Eick, Ewald, Richardson & Anderson, 2007:9). The globalisation of networks is an issue that was raised by Spring (2009:7). These networks can operate globally because of technology like the Internet, which can compress time and space. Hadfield and Jopling (2012:111) looked into how network theories can support school leadership research. They are of the opinion that network theories must address the development of social capital within a school as organisation in society. Most of the preceding studies focused on capacity building of leaders through networking which can have a positive impact on education in general. This aspect will be further explored as part of the research study (chapters 2 and 3).

Throughout this literature search, it is clear that networking is recognised as a useful tool for leadership learning and leadership capacity building. The contribution and value of this research is indisputable to provide a sound, scientific and research based basis for the implementation and management of networks as part of the professional development of education leaders. It is also clear that there is a need for a study that includes the development and management of networks as part of the professional development of educational leadership in schools in South Africa. The following reasons for this identified need are:

- There is a need in the South African education system for the professional development of educational leaders (Kiggundu & Moorosi, 2012; Mathibe, 2007; Mestry & Singh, 2007; Van der Westhuizen & Van Vuuren, 2007; Botha, 2004).
- Most previous studies regarding networks are from first world countries with modest relevance to the situation in South Africa.
- Studies for developing and managing networks in schools are very limited, although it is seen as an important aspect for the development of leadership and management (Kiggundu & Moorosi, 2012; Muijs *et al.*, 2010; Mathibe, 2007; Botha, 2004).
- There is no proven or scientifically based management strategy for the implementation of a learning network component as part of the professional development of educational leaders (Kiggundu & Moorosi, 2012; Muijs *et al.*, 2010).

The formulated needs, as was stated above, serves as a concise rationale and motivation for this research topic. In the next section, the research questions and aims for this study will come under scrutiny.

1.4 RESEARCH QUESTIONS AND AIMS

Based on the problem statement (par. 1.1) and from the argumentation in the literature review that focused on networks, educational leadership and professional development of educational leaders (par. 1.2), the following research sub questions and research aims were formulated.

1.4.1 Research questions

By taking into account the problem statement and review of the literature the following research sub questions, pertaining to the research problem, arose:

- What is the nature and significance of networks and networking in an educational leadership context?
- What does professional development for educational leaders entail?
- How can network leadership contribute towards the professional development of educational leaders?
- How do educational leaders manage networks and networking in diverse contexts?
- What management framework for a regional and school-based network can be developed as part of the professional development for educational leaders in diverse contexts?

The literature review and above-stated research sub questions enabled the researcher to formulate the purpose for this research.

1.4.2 Research aims

Based on the central problem statement (par. 1.1) and the related research sub questions (par. 1.4.1), the research aims for this study is:

- To determine the nature and significance of networks and networking in an educational leadership context;
- To explore and describe what professional development for educational leaders entails;
- To ascertain the concept of network leadership and its contribution towards professional development in relation to education;
- To conduct an investigation into the management of networks and networking by educational leaders in diverse contexts; and
- To develop a management framework for regional and school-based networks as part of the professional development for school principals in diverse contexts.

1.5 RESEARCH DESIGN AND METHODOLOGY

The research is based on a literature study and an empirical section of a quantitative design and nature.

1.5.1 Literature study

A comprehensive literature study of relevant primary and secondary sources, as well as related documentation from the Department of Basic Education was undertaken to describe and analyse the theoretical basis for this research. The main focus of the theoretical investigation was about the nature and significance of networks and networking in relation to educational leadership. Research related themes pertaining to applicable management theories and strategies for effective networks in educational leadership contexts were also explored. Databases that were, *inter alia*, consulted are: NEXUS, ERIC, RSAT, GKPV and relevant education and management indexes. Electronic databases such as EBSCOhost, JSTOR and the World Wide Web were intensively searched for relevant data. Keywords and phrases that were used for database searches are: *networks, networking, networking in education, networking for schools, networking for principals, managing / management of*

networks, leadership, educational leadership, network leadership, network strategy, educational partnerships and professional development.

1.5.2 Research design and methodology

The research design and methodology for the proposed research are described in this section.

1.5.2.1 Research paradigm

A conceptual framework introduces explicitness and order between the processes of the research and provide a self-audit facility for the researcher to ensure appropriately grounded conceptual conclusions (Trafford & Leshem, 2008:87). The theoretical framework that has been briefly outlined by the literature review focuses mainly on the theme of a transformational nature, i.e. to build on the development of leadership capacity in schools. The theoretical framework that was created through the literature review assisted the development of the conceptual framework for this study. Yates (2004:15-35) specifies what good educational research looks like. The following claims for educational research are presented:

- “Good education research” can be measured by its contribution to learning.
- “Good education research” must make sense and be usable by teachers (or instructors, parents or the lay reader).
- Quality education research must be scientifically-based research.

This research was conducted with the above in mind. By assuring that the suitable research design is selected, appropriate conclusions were drawn. A scientifically-based management framework for networks was produced to contribute to the development of educational leaders and education in general (chapter 6).

The research paradigm that I adopted for this research was a post-positivistic approach in which I acknowledge that value systems play an important part in the conduct of research and interpretation of data (Kumar, 2014:65; Hammersley, 2012:21; Teddlie & Tashakkori, 2009:5). The post-positivistic paradigm posits, according to Brundrett and Rhodes (2014:18,19), that the goal of social science is to hold steadfastly to the goal of getting it right about reality, even though the authors argued that this goal can never be fully achieved. According to Plack (2005:27) the aim of post-positivists is to discover cause and effect relationships and to predict and control future behaviour on the basis of present behaviour. Post-positivists also recognise the fact that objectivity is an ideal that can never be fully achieved, but rather that a shared reality is the awareness and acknowledgement of subjectivity (Mack, 2010:7; Maree, 2007:65;

Plack, 2005:227). It can be concluded that from a post-positivistic perspective, social institutions have interdependent functions (networks) which, when performed to their full potential, combine to produce a healthy and evolving society (Leighton, 2013:59). Education in this context is viewed as a social activity, which must transform knowledge into skills and values. Therefore, networks can be used as a 'vehicle' to ensure that societal knowledge is interconnected and interactive between people and institutions. For this research study, I made use of an external and experienced researcher to verify the data collection, analysis and findings to ensure optimal objectivity.

1.5.2.2 Design and methodology

In order to obtain valid and reliable data for this research problem and to arrive at trustworthy solutions for the stated research problems, a quantitative research design and more specific an empirical survey was adopted as the most appropriate design for achieving the aims of the research. A post-positivistic approach supports the use of quantitative data that incorporates, among other aspects, conceptual interpretation and analysis (Kincaid, 2000:696). My understanding of quantitative research resonates with Maree and Pietersen (2007:145) who define quantitative research as *"a process that is systematic and objective in its ways of using numerical data from only a selected subgroup of a population to generalize the findings to the universe that is being studied"*. My adoption of a quantitative research design further concurs with the aim to provide a broad overview of a representative sample from a larger population (Mouton, 2001:52). The rationale for selecting a quantitative research design and survey was that the data collected by a structured questionnaire enabled the researcher to determine the viewpoints, perspectives and experiences of the respondents in relation to specific aspects of the phenomenon, i.e. networks, leadership and professional development, which were under investigation according to the research aims (par. 1.4.2).

The selection of a quantitative research design is also made to answer the questions about specific occurrences, trends and relationships among measurable variables with the purpose of identifying and explaining the phenomena of this inquiry (Leedy & Ormrod, 2005:94). Appropriate statistical analyses are generally employed with quantitative research methods, while related analyses and interpretations are reported that leads to in-depth discussions of the results and findings (AERA, 2006:37). The quantitative research design for this investigation has a number of core features, which is in accordance with those mentioned by Morrison (2007:22-23):

- The relation between concept formation and measurement is central. Therefore, a literature study in depth and breadth was undertaken and the empirical section involved the use of a research specific structured quantitative questionnaire.
- Quantitative research is interested in causality. The reciprocal relationship between dependant and independent variables is essential in the investigation.
- Findings can be generalised beyond the location of the project.
- Educational research cannot be entirely value-free and therefore a post-positivistic approach was adopted for this inquiry.
- The emphasis was on the individual as the object or respondent of research.

The researcher has chosen a survey for its strengths to generalise and high measurement reliability, as well as the strength of quantitative research to establish occurrences, trends and statistical relationships (Thietart, 2007:173). A survey, in this research, provided an overview of the nature, extent and effectiveness of networks within the study area and the significance of networks in relation to the applicable variables and study phenomena. Furthermore, the researcher has chosen to use a qualitative research section in order to gain more insight into the respondents' personal perceptions and observations on specific aspects of the research, i.e. networks and professional development of principals through networks. This was done by using two open-ended questions as part of the questionnaire.

1.5.2.3 Study population and sampling procedure

The study population consists of the principals of all the public schools, which form part of the Thabo Mofutsanyana Education District in the Free State Province of South Africa. According to the Education Management Information System (EMIS) of the Free State Department of Basic Education, there are 443 public schools in total in the mentioned district. These schools include primary, secondary, intermediate, combined and special schools (Free State Department of Basic Education, 2013:2). This identified education district is a wide-spread area with a diverse population and is also the provincial district I am currently employed in as school principal. Related personal and career experiences, which were corroborated by a literature review, led to the identification and conceptualisation of the chosen research topic.

All principals of public schools which fall within the Thabo Mofutsanyana Education District (443 respondents) were purposely selected to determine the level of networking, leadership and professional development in these schools. The Department of Basic Education's district office was consulted in order to acquire access and obtain official permission to these schools for this research (Annexures C and D). A total number of 443 school principals were

purposefully selected as respondents because of his/her role as education leader and manager at the school. Since all school principals within this specific district were selected for this research, no further sampling procedure was required as part of the empirical investigation.

1.5.2.4 Unit of analysis

Quantitative data provides the opportunity to gather data from a large number of people and to generalise the results (Creswell, 2005:562). The researcher made use of a structured questionnaire for school principals of all public schools in the demarcated area of the research in order to determine the nature and significance of networks in an educational leadership and professional development context. Specific aspects of networking, leadership and professional development were included in the questionnaire. The literature study, related questionnaires, the outcomes of the pilot study as well as personal and career experiences informed the researcher of the identification of these specific aspects of networking, leadership and professional development of school principals.

1.5.2.5 Measuring instrument

In order to conduct the empirical survey, a research specific questionnaire was developed. The questionnaire was developed in accordance with the theoretical basis (chap. 2 & 3) of the research and the research aims (par. 1.4.2). The questionnaire was also developed by taking into consideration existing questionnaires about networks and professional development, e.g. those developed by Brown (2013), Lowrey (2013), Knobl (2013), Department of Basic Education (2012), Bush *et al.* (2011), Cone (2010), Haynes (2010), Hung and Yuen (2010), Moolenaar *et al.* (2010), Witten (2010), De Lima (2008), Matthes (2008), Mathibe (2007), Saelens (2007), Vodicka (2007), Leithwood *et al.* (2004), Moller (2004), Burstein (2001), Salazar (2001), Mullen and Kochan (2000), Holloman (1999), True (1998), Abrell (1997) and Rawles (1995).

The survey questionnaire determined what the nature and level of networking in schools are, as well as defined the types of existing networks in schools and its relation with educational leadership. The questionnaire was developed to acquire relevant data in accordance with the research aims about the nature and significance of networking, leadership and professional development as well as to what extent networking is part of the managerial tasks in an educational context. The questionnaire consisted mainly of four sections, namely:

- Biographical information (aspects of networks and professional development)
- General information about the nature of the school

- Conceptual matters of networks and networking
- Indicators of networking and professional development

Furthermore, the questionnaire included a Likert type scale consisting of a four point rating scale to include either low or high response values. The Likert scale is useful when data need to be evaluated or quantified in a research survey (Leedy & Ormrod, 2001:197). It is also useful when behaviour, attitude or other phenomena need to be evaluated on a continuum (Monteith, 2009:13; Leedy & Ormrod, 2005:185). Lastly, all questionnaire items were aligned with the literature study, the theoretical framework and research aims in order to include the required aspects of the research phenomena (par. 1.2; 1.4.2; chap. 2 & 3).

1.5.2.6 Data collection

This was a crucial part of the research. According to AERA (2006:35), the rationale for data collection and the description thereof must be clear so that another researcher under similar or altered circumstances are able to reproduce or replicate the methods of the data collection. Sanders (2008:531) is of the opinion that the collection, analysis and presentation of data are increasingly seen as vital to educational improvement through research. The process of data collection in this research was thus seen as a means of increasing educational excellence in ways that are continuous and systematic and in which research plays a key role.

The researcher made use of the following strategy to distribute the questionnaires. The researcher met with all the circuit managers in the Thabo Mofutsanyana Education District (TMED) at a scheduled meeting and explained the process and purpose of the study as well as to give information about the questionnaire. The questionnaires were then distributed by the circuit managers to their respective schools, accompanied by a cover letter addressed to the principal explaining the purpose of the research as well as information on completing it. In order to increase the response rate of the questionnaires, an appeal was made to the school principals to return the completed questionnaires before or on a predetermined target date to either the researcher, the school's allocated circuit manager or to a representative at the district office, from where it was collected by the researcher. In order to maximise the return of the questionnaires, respondents and circuit managers were reminded several times beforehand in writing, telephonically and via email messages about completing and submitting the questionnaire. A more comprehensive description of this procedure is provided in chapter four.

1.5.2.7 Statistical analysis

In a quantitative survey, research information is acquired about people's characteristics, opinions, attitudes or previous experiences by asking them questions and tabulating their answers. The aim of the survey is to learn about the behaviour of a large population (Leedy & Ormrod, 2005:183). The data analysis was done throughout the research. The data, results and findings were extensively described and presented in a detailed research report and in accordance with the requirements of the institution.

Descriptive statistical techniques were used to organise, analyse and interpret data. This was done in three stages. The first stage ensured the reliability of subscales or constructs by calculating the Cronbach Alpha coefficient, while the construct validity was secured by performing an exploratory factor analysis. During the second stage the data was presented in numerical ways by using the statistical data that was collected through the questionnaires. Frequency tables were used to explore response patterns of the different subgroups (Maree, 2009:185). The mean was applied to describe the distribution of responses and to identify characteristic values. The spread of the distribution (e.g. the standard deviation) was described by numerical variances to indicate the extent to which data measures tend to cluster close together or are widely spread over the range of values (Maree, 2009:188). Individual or raw scores (z-scores) which points to a relative position in the data distribution were also employed to indicate how far the individual score is either below or above the mean. The purpose of the descriptive statistical techniques used in this research was to organise, present and analyse the captured data meaningfully in order to understand the characteristics, patterns and relationship between the various variables of the investigation. The final stage involved the calculation of effect sizes to determine if practical significant differences between the different aspects of networking and professional development exist. Furthermore, the calculation of effect sizes also established the relationship between the relevant variables of the research study. Since the study population was purposefully selected, the interpretation of results was not based on p-values but on effect sizes (par. 5.3).

These specific statistical techniques were utilised to realise the problem statement and aims of the research (par. 1.1 & 1.4.2). The data analysis was done in collaboration with the Statistical Consultation Services (SCS) of the North West University, Potchefstroom Campus.

1.6 RELIABILITY AND VALIDITY

In this section, there will be a look into how reliability and validity were secured for this research study.

1.6.1 Reliability

Reliability has to do with the consistency or repeatability of a measurement instrument (Maree & Pietersen, 2007(a):147). The reliability of measurement is the extent to which it yields consistent results when the characteristics being measured hasn't changed. It can take different forms in different situations (Ellis, 2009:13; Leedy & Ormrod, 2005:93). A comprehensive theoretical framework, based on the literature study, formed the basis for the questionnaire to be developed and therefore constitutes the first line for reliability. Secondly, a pilot study in two similar schools, which are not part of the study population, was conducted to ensure that the formulation and outline of the question items are practical, reasonable and logical for the respondents. The questionnaire for the pilot study included a section where respondents could provide recommendations for improving the formulation and outline of the questionnaire. The main objective of the pilot study was to increase the reliability and validity of the data.

1.6.2 Validity

According to Leedy and Ormrod (2005:97) validity refers to the accuracy, meaningfulness and credibility of a research project. Internal validity (*credibility*) allows the researcher to draw valid conclusions from the research and ensures that the questionnaire measures what it is supposed to measure (Monteith, 2009:5; Maree & Van der Westhuizen, 2007:37). External validity (*generalisability*) refers to the extent in which the results, conclusions and research findings can be generalised to a wider community or to other similar situations (Maree & Van der Westhuizen, 2007:39; Leedy & Ormrod, 2005:99). During this research, internal validity was secured through means of reviews by experienced researchers and a pilot test to verify the different sections and items of the questionnaire. External validity was assured by selecting all the public schools in the study population for the survey, according to the set criteria for the research (par. 1.5.2.3).

1.7 ETHICAL CONSIDERATIONS

Ethical aspects of research were taken into account as the highest priority when conducting the research. All participants' rights and privacy were protected and unwanted interruption in their personal or professional lives was minimised. Anonymity and confidentiality were guaranteed at all times and respondents had the option to withdraw at any time from this

research. In order to avoid any misunderstanding of their role in the research as well as the purpose of the research, communication was done in writing - clearly and without any deception. The following main ethical aspects in relation to the research were applicable:

- Ethical clearance was obtained from the North-West University.
- Consent and approval (Annexure D) for the research were obtained from Ms. B.S. Tshabalala, the District Director for the Thabo Mofutsanyana Education District, as well as Dr M.C. Liphapang, director for planning and research of the Free State Department of Education and Dr J.E.M. Sekolanyane, the chief financial officer of the Free State Department of Education.
- Informed consent (Annexure E and F) was obtained from the respondents by means of an *informed consent form* that provided a clear description of the nature and purpose of the study. Any participation was strictly voluntary.
- The right to privacy and confidentiality of respondents were assured by means of a written statement (Annexure B).
- No participant was subjected to any stress or embarrassment during the research.
- All findings were reported in an honest and clear manner and no information was withheld that can have an influence on the results.
- Where possible, feedback will be made available to participants and other role players on the outcome of the research.

1.8 CONTRIBUTION OF THE RESEARCH

The study contributes to effective educational leadership through the creation of sustainable networks towards capacity building of school principals. Networks may support educational leaders as agents of change for educational transformation and may contribute towards a positive attitude relating to educational change. The advantages of networks could ultimately lead to the enhancement of quality teaching and learning, which is the core purpose of the South African education system. The establishment and management of networks in diverse contexts is a key and compulsory element as part of the current and national professional qualification for educational leaders in South Africa. This research provides a scientific basis for the implementation of this practice and extend the current body of knowledge of creating and managing networks in education.

The outcomes of this research serve as a framework for principals and educational leaders in general to activate, build, maintain and manage networks for the benefit of the school and all

its stakeholders. Findings that are generalised to a similar population can be useful for initialising and the management of networks as part of the professional development for educational leaders in diverse contexts.

1.9 CHAPTER DIVISION

CHAPTER 1: ORIENTATION

Chapter 1 presents the main research problem and a concise review of the literature. It also provides the background to the study as well as the type of study that will be undertaken.

CHAPTER 2: CONCEPTUALISING NETWORKING

This chapter is the first of the two literature chapters. In this chapter, there will be a clarification of what networking entails. It also situates this study in relation to other studies and the broader literature on networks and networking.

CHAPTER 3: LEADERSHIP AND PROFESSIONAL DEVELOPMENT OF PRINCIPALS

This is the second literature chapter. In this chapter, there will be a review of the main themes of the chapter, i.e. leadership and professional development. Furthermore, there will be a look into network leadership and its usability towards professional development in diverse educational contexts.

CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY

This chapter is methodological. There will be a description of the research design, research questions, unit of analysis, sampling and data collection procedure and the data analysis.

CHAPTER 5: REPORTING AND INTERPRETATION OF DATA

This chapter will be used to analyse data and to make conclusions on the relevant questions as will be presented by the survey questionnaire. This will be done taking into consideration the research aims.

CHAPTER 6: NETWORKS FOR THE PROFESSIONAL DEVELOPMENT OF SCHOOL PRINCIPALS IN DIVERSE CONTEXTS: A FRAMEWORK

In this chapter, a framework for establishing networks towards the professional development of school principals will be constructed. This will be done by taking into account the information

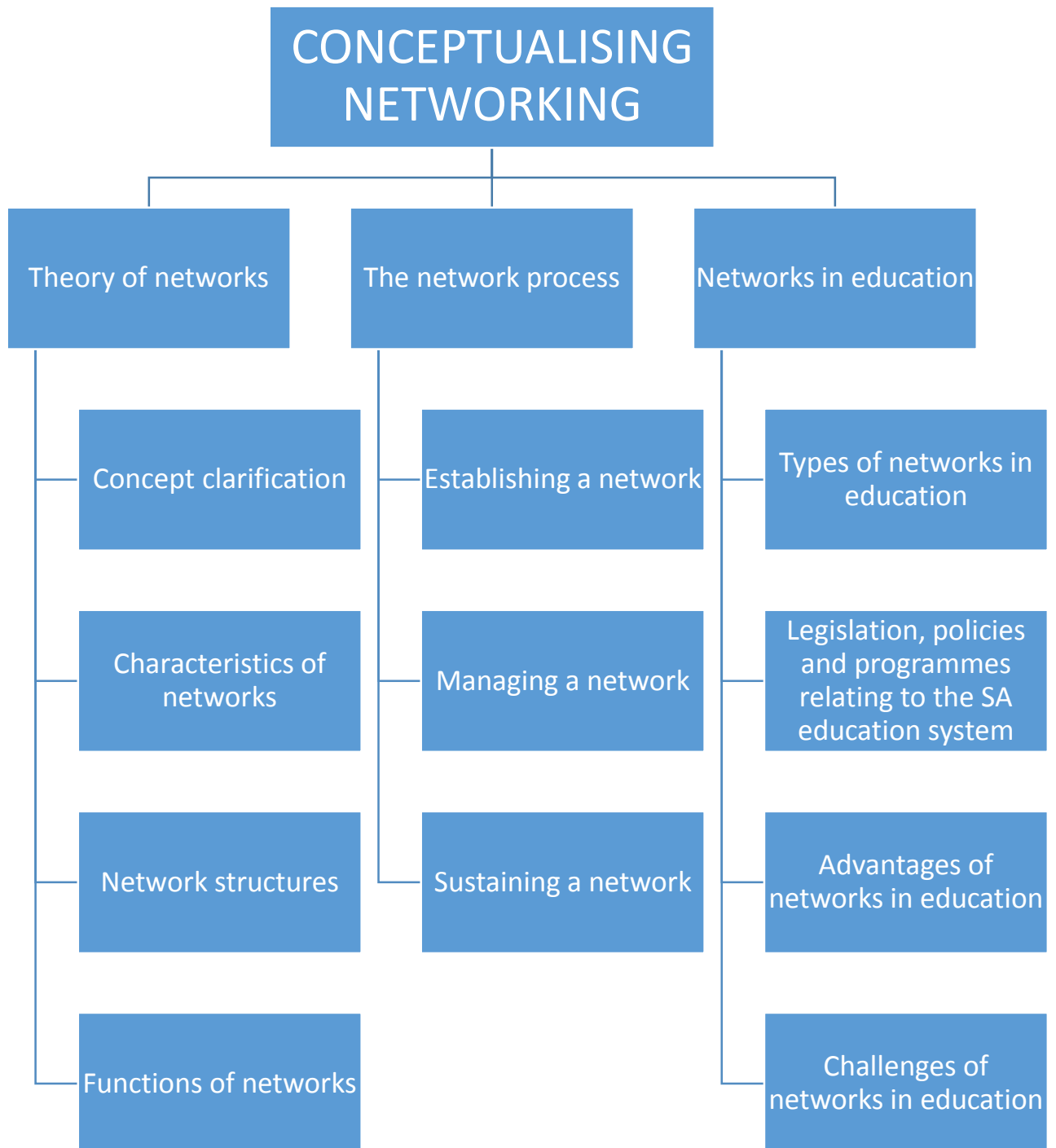
obtained from the literature chapters as well as the different constructs, as was presented by the data acquired from the questionnaires.

CHAPTER 7: SUMMARY, FINDINGS AND RECOMMENDATIONS

The study will conclude with this chapter, summarising the findings and answering the general research question. There will also be an outline of the general contribution of the research to the existing body of knowledge on the topic of the research. The chapter will conclude with a discussion on the research's limitations and a proposal for future research.

CHAPTER 2

CONCEPTUALISING NETWORKING



2.1 INTRODUCTION

Networks as a means of communicating and sharing ideas and knowledge have emerged globally over the last few decades. The importance of networking for the development and advancement of an organisation has been long overlooked and is becoming increasingly part of developmental structures. Networking, when used correctly and appropriately, can also be used as an effective leadership instrument.

Networking has also recently come to the fore in schools and is specifically used towards school improvement. School networks have grown in popularity over the last two decades in countries such as Australia, the UK, the USA and Canada with the purpose of hastening school change and to offer alternative paths for improvement (Evans & Stone-Johnson, 2010:204). Networking with internal and external role players and the wider community ensures that schools keep abreast of current initiatives and anticipate future developments and trends in education. Networking in education changes conventional staff development activities, like workshops, conferences and seminars, to more collaborative actions that highlight creative structures for professional development, i.e. educational networks.

School leaders are the most important role players in creating sustainable networks with other stakeholders. It seems that this takes more and more time of school leaders and they do not always know how to achieve the networking goals of leadership. It is important that school leaders know how to engage in networks and how to balance network activities with other school improvement efforts.

The preceding line of reasoning serves as background arguments to the focus of this chapter. In this chapter, an examination of various aspects pertaining to networks will be done in order to set the tone for this research study on the use of networks for professional development in schools. There will firstly be a look into the theory of networks, which will include concept clarification, network characteristics and network structures. Then a discussion on the establishment, management and sustaining of networks will follow. The chapter will be concluded with a discussion on the use of networks in education with its related advantages and challenges.

2.2 THE THEORY OF NETWORKS

In this section the researcher will look into the theory of networks. This will form the basis for the rest of the chapter as well as for the research topic. Firstly, the definition of networks and networking and other related concepts, according to the literature, will be purposefully studied.

Furthermore, there will be an in-depth discussion of the characteristics and structures of networks. There will also be a discussion of the different forms and types of networks. Lastly, the functions of networks will be carefully considered in order to relate it to the education system.

2.2.1 Concept clarification

According to Bienzle *et al.* (2007:7-8) the term network originated from the technical- and natural sciences, e.g. a road or rail network or a spider's web. With this in mind, one can gain a picture of an intertwined structure or system of ties between people or organisations when "humanising" a network. The term *social networking* also arises when the term networking is being mentioned. This type of network doesn't always succeed in its intention for professional development purposes and is mostly use for social discussion and conversation (par. 2.2.4.1). With these background remarks in mind, the meaning of networks will be further explored.

A *network* is defined as a system or process that involves a number of cooperating individuals, groups, places or organisations that are interconnected (Collins English Dictionary, 2013; Macmillan Dictionary, 2013; Webster's New World College Dictionary, 2013; Wordsmyth English Dictionary, 2013). Networks can also be defined as groups of individuals, formally or informally bound together through exposure to a common class of problems, common pursuit of solutions and thereby themselves embodying a store of knowledge (Edge & Mylopoulos, 2008:152). Kiggundu and Moorosi (2012:218) define networks as: "*...social structures characterised by complex relationships between individuals, groups and other collectives*".

Networking is described as the activity of exchanging ideas, information, services and advice among individuals, groups or institutions regarding common interests (Macmillan Dictionary, 2013; Moore & Rutherford, 2011:70). Furthermore, networking is defined as the cultivation of productive relationships for employment or business purposes (Merriam-Webster Online Dictionary, 2013). These two aspects, networks and networking, are interrelated and networking can be seen as the activity that people engage in as being part of networks. This interrelatedness and cooperation between members of a network are shown in figure 2.1 below.

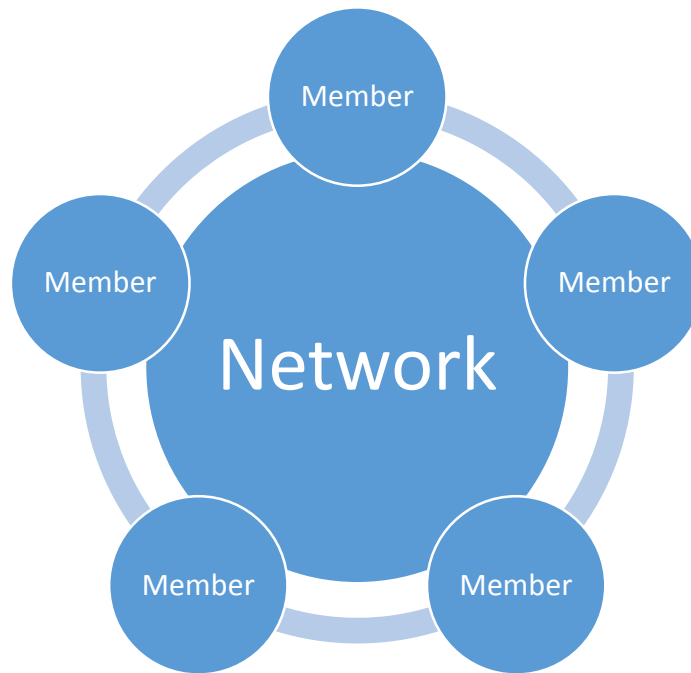


Figure 2.1: The interrelationship of members in a network

Alternatively, some authors like Cassar (2013:5), Mathibe (2007:531) and Jervis-Tracey (2005:291) also suggest that networks include the establishment of partnerships with associated organisations and individuals. Therefore, the term partnership will also be scrutinized. A *partnership* is a relationship usually involving close cooperation between parties having specified and joint rights and responsibilities (Merriam-Webster Online Dictionary, 2013). A partnership is the collaborative association and affiliation of different individuals and organisations towards a common goal.

The definitions of the authors, as presented above, have the commonality that networks are interrelated structures with a common goal of collaborative activity and interests by means of good and productive relationships.

Networks can also be used successfully as part of educational structures. In an education sense, the above-mentioned concepts, i.e. networks, networking and partnerships, implies the combined endeavours of different schools, educators and principals in an effort to collaboratively be more effective in improving learning and management of the individual schools. According to Northmore (2014:11), principals do one another a disservice by not sharing their insights and experiences in order to inspire one another. Creating collaborative structures around schools are more likely to result in deeper organisational learning, both collectively and individually (Muijs, Ainscow, Chapman & West, 2011:2).

After engaging with the literature on networks, as was presented in this section, the following definition of networking in education is suggested by the researcher:

“The collaborative approach of individuals in the education system, with the main purpose to make a collective attempt, to firstly develop individuals’ skills and competence and secondly, to increase the capacity of the school by sharing information, ideas and responsibilities in order to mutually improve all aspects of the individual schools”.

The above definition gives background to and serves as a point of departure for the discussion that will take place in the rest of the chapter. For the purpose of clarity the nature, characteristics and complexity of networks and networking will be looked into in the following paragraph.

2.2.2 Characteristics of networks

Networks and networking occur on different levels and with different purposes. Therefore, it is necessary to investigate the nature and complexity of networks and networking, as well as to distinguish which universal and common characteristics can be established as part of the phenomena. Many authors present different characteristics of networks. Some of these characteristics concur while other aspects are valued more by some authors. A look into these characteristics will follow.

Henderson (2005:1-2) discusses three universal laws which act as the basic principles of networking. These are:

- The law of abundance. There are plenty of opportunities, ideas, etc. for everyone to use.
- The law of giving without expectation. Networkers network because they want to help others achieve their goals but at the same time receive something unexpected themselves.
- The law of reciprocity. What you give out comes back through networking. This can be in the form of information, ideas, support, etc. What is returned may not come from the person who it was given to and may not happen immediately but at a much later time.

This principled approach of Henderson means that networks firstly, need not be a complex process, rather an unsophisticated development of information and ideas, which can be used excessively towards the improvement of all stakeholders; secondly, networks are built on respect and sincerity; and thirdly, networking takes time and is a two-way process of give and take. D'Souza (2010:11) agrees with Henderson's approach by defining networking as: *"The art of being true to your own values, beliefs and character whilst building and nurturing reciprocal relationships that help individuals or the group as a whole to achieve their goals"*. He further elaborates by stating that networking is being part of a system that operates at a level of reciprocity. Networking is intimately connected to diversity and creativity. The more diverse reciprocal network relationships people have the more they can benefit from networks (D'Souza, 2010:11-12) (par. 3.6). This view of the author coincides with the focus of this study on the use of educational networks in diverse contexts. A further discussion on this topic will follow later in the chapter (par. 3.6).

Edge and Mylopoulos (2008:152) differentiate between informal networks (communities of practice) and formal networks (professional networks or networks of practice). The above authors are of opinion that there are three attributes necessary for networks to develop, namely: an identity grounded in a shared domain of interest; members interacting and learning together; and finally the development of a shared practice. On the other hand, Hadfield and Chapman (2009:24) suggest nine core attributes for effective networks. These attributes are:

- Participation
- Relationships and trust
- Coordination, facilitation and leadership
- Communication
- Structural balance
- Diversity and dynamism
- Decentralisation and democracy
- Time and resources
- Monitoring and evaluation

The authors above delve deeper into the functioning of networks by presenting practical attributes that networks should contain. These attributes are important for the success of a network. Establishing and managing functioning networks will be discussed later in the chapter (par. 2.3).

Rajagopal, Joosten-ten Brinke, Van Bruggen and Sloep (2012:1-2) are of opinion that both strong and weak connections contribute to an individual's learning. Strong ties allow for active collaboration on knowledge creation, while weak ties are sources for new information, knowledge and ideas. For a *Personal learning network (PLN)*, networks and network ties can be categorised as a three-layered approach consisting of the following:

- a communality layer – where active collaboration takes place (strong ties)
- a societal layer – where new knowledge and ideas are formed (weak ties)
- a connectivity layer – where new information is gathered (very weak ties)

The views of the authors agree with those of Edge and Mylopoulos (2008:152), as presented above. This illustrates that networks can range from informal social gatherings where little active group effort takes place to formal structures, that present the members of a network with productive reciprocal collaboration activities. The level on which networks function will ultimately determine its characteristics.

Bienzele *et al.* (2007:9-10) differentiate between three groups of characteristics of networks. These groups are:

- Relational characteristics, which include reciprocity, diversity of the content of ties, homogeneity or heterogeneity, latent and current ties, intensity, duration and frequency, access opportunities, communication channels and different roles in the network.
- Functional characteristics, which include the exchange of resources, the role of communication, job relief, nature of support, availability of help, assistance and value and norm orientation.
- Structural characteristics, that include the size, density, locality, clustering and direct or indirect approach of networks.

The author's observation and opinion of this matter is quite broad and comprehensive when compared to other authors' beliefs. In order to make it easier to identify the various needs of a network and which aspects to take into account when establishing a network, the differences between the groups of characteristics is presented in table 2.1 below.

Table 2.1: The three groups of characteristics of networks (Bienzle *et al.*, 2007:9-10)

Relational	Functional	Structural
• Reciprocity • Diversity • Intensity • Duration • Frequency • Access • Roles	• Resources • Communication • Support • Availability • Assistance • Values • Norms	• Size • Density • Locality • Clustering • Approach

The characteristics as presented above can be extensively exploited when establishing a network. It can also serve the purpose of a checklist when managing a network. These characteristics will be further explored in the discussion on the establishment, management and sustainment of networks in sections 2.3 of this chapter.

Kiggundu and Moorosi (2012:217) suggest that networks for schools should be underpinned by four main principles, namely: voluntarism, collaboration, participation and ownership (par. 2.3.1.2). Tafel-Viia, Loogma, Lassur and Roosipold (2012:176) reason that three relational aspects are part of networks namely: trust; power and values; and interests or common goals. Rauch (2013:322) is of opinion that networks offer an information function (goal-orientated exchange processes); a learning function (professional development) (par. 3.5); and a psychological function (a culture of trust, raising of self-esteem and risk taking).

When taking into account all the authors in the preceding arguments and views, the following universal characteristics and attributes of successful networks can be summarised:

- Reciprocity between members (Rauch, 2013; D'Souza, 2010; Bienzle *et al.*, 2007; Henderson, 2005).
- Active participation and collaboration between members (Rauch (2013); Rajagopal *et al.*, 2012; Kiggundu & Moorosi, 2012; Hadfield & Chapman, 2009; Edge & Mylopoulos, 2008; Bienzle *et al.*, 2007).

- Creating of trustful relationships (Rauch, 2013; Tafel-Viia *et al.*, 2012; D'Souza, 2010; Hadfield & Chapman, 2009; Henderson, 2005).
- Sharing of common values, interests, information, knowledge and ideas (Rauch, 2013; Rajagopal *et al.*, 2012; Tafel-Viia *et al.*, 2012; D'Souza, 2010; Hadfield & Chapman, 2009; Edge & Mylopoulos, 2008; Bienzle *et al.*, 2007; Henderson, 2005).
- Creating of opportunities to develop and to achieve individual and shared goals (Rauch, 2013; Tafel-Viia *et al.*, 2012; Edge & Mylopoulos, 2008; Bienzle *et al.*, 2007; Henderson, 2005).
- Goal-orientated coordination and facilitation of activities (Rauch (2013); Tafel-Viia *et al.*, 2012; D'Souza, 2010; Hadfield & Chapman, 2009; Bienzle *et al.*, 2007; Henderson, 2005).
- Diversity exists (D'Souza, 2010)
- Opportunity for creative thinking (D'Souza, 2010)
- Two-way and useful communication takes place (Rajagopal *et al.*, 2012; D'Souza, 2010; Hadfield & Chapman, 2009; Bienzle *et al.*, 2007)
- Definite democratic leadership exists (Hadfield & Chapman, 2009)
- Monitoring and evaluation takes place regularly (Hadfield & Chapman, 2009; Bienzle *et al.*, 2007)
- Coordination of interactions are maintained (Rauch, 2013).

The above universal characteristics, which were derived from the literature, will be used to systematize the part of the research study questionnaire, which deals with networks. The analysis of network structures will be the focus in the following paragraph.

2.2.3 Network structures

All networks have different starting points and reasons for existence. Networks also vary in their way of functioning and are continuously in a process of development and change. The structure of networks is defined by the relationships that separate networks from just any group of people that could be brought together for a whole host of reasons (Hadfield & Chapman, 2009:35). Each individual network has several changeable factors, e.g. personalities of members, size of the network, specific goals of the individuals in the network, etc. (par. 2.2.2). When analysing networks one needs to take into consideration the systematic functioning of specific networks. Some network structures can be more purposefully used for specific organisations. Therefore, one needs to distinguish between the different kinds of networks that exist. In this section on network structures, there will be a discussion of the forms of networks. The different types of networks will also form part of this focus. These different types of networks that can be formed will be brought into consideration when looking into the

use of networks for professional development purposes in education, which is the focus of the study. Networks for professional development will be explored in the next chapter (par. 3.4 & 3.5).

2.2.3.1 Forms of networks

The forms of networks and networking look at how networks emerge and the reason for the establishment of specific networks. It also refers to the foundation of networks, as well as to the way in which networks function. The complexity of networks is also accounted for in this section.

A) The relational perspective of networks

The relational perspective of networks refers to the basis from which networks develop. As was discussed in the previous section Bienzle *et al.* (2007:10) is of opinion that networks originate as informal or formal structures (par. 2.2.2). Evans and Stone-Johnson (2010:204) advocate that networks are contextually situated and therefore varied. In terms of overall structure, networks may be formally constituted, informally connected or even be internal in a single organisation. Informal networks are voluntary and initiate from individuals that have similar interests or goals. Formal networks, on the other hand, are more complex and arise from organisational and cooperative structures. Because networks are seen as varied and contextually situated it can also be used for educational purposes. The formality of networks in schools will depend on the specific goals and views of the members of the network. The views of the above authors are specifically important for the sake of this research study as network structures can most probably also be used to the advantage of educational organisations.

Some authors, like Townsend (2013), Kiggundu and Moorosi (2012), Kubiak (2009) and Edge and Mylopoulos (2008), are of the opinion that networks should be informally activated. Networks often have unclear starting points, rather influences to come together to form a focus of interest, energy and desire to do or achieve something. Edge and Mylopoulos (2008:152) use the term *Communities of Practice (COP)* that can be defined as: “*Groups of individuals informally bound to one another and thereby themselves embodying a store of knowledge.*” Kubiak (2009:240) is also of the opinion that the mutual activities of networks arise out of necessity to solve a problem or issue of mutual concern. From a study of Kiggundu and Moorosi (2012:223), the participants responded positively towards informal networks as it happened out of their own accord and when there was a need, without the facilitation of a mentor. From recent case studies of networks in neoliberal contexts done by Townsend (2013:358), the author argues that networks arising from social movements, rather than

organisational development, are more likely to be efficient because they derive from socialising common ideals. Informal networks stem from the working relationship that different people enjoy within or between organisations. It is normally less formal and unstructured and is very dependent on the individuals within the network. The motivation for networking originates, according to this argument, from individuals rather than because of a requirement of the organisation. The authors above are of opinion that informal networks can be successfully used to respond to common problems that individuals might be presented with. This is because organisational networks that are forced on individuals might not have the positive impact it was aiming at because of a lack of cohesion between members' ideas, goals or concerns.

Formally initiated network structures are functionally correlated by organisations and are mandated in an organisational form (Bienzle *et al.*, 2007:11). As networks develop, formal and informal actions occur simultaneously. As members begin to trust and know each other, they are enriched through growing personal acquaintance and informal contact. The formality of networks depends on the relationships that exist between the members of a specific network. In some cases, networks rely largely on trust and good faith and don't necessarily need formalised management structures and agreements, whilst in other networks more formal structures need to be in place in order for it to succeed (Muijs *et al.*, 2011:48). Informal structures are highly effective in that problems can be easily and flexibly resolved, but on the downside can have difficulties when there are people changes as this type of network relies very much upon individual personalities within the network. More formal networks can overcome this problem, but have the negative implication of limiting flexibility, responsiveness and the development of trusting relationships (Muijs *et al.*, 2011:48). According to Muijs *et al.* (2011:48) the greater the cultural distance between organisations or people and the less they have worked together, the greater the need for more formalised structures in networks. This view of Muijs *et al.* is very significant for this research study on educational networks in diverse contexts. Diversity is an issue that is relevant in society and needs to be taken into account when working with individuals. When dealt with appropriately diversity should lead to the growth of the organisation (Smith, 2012:126). Diverse networks should have a proper formal framework in order to bring diverse individuals together towards the attainment of common ideals. This aspect will be further discussed in chapter 3 of this study (par. 3.6).

According to Kubiak (2009:241) informal and formal structures are interdependent and the success of networks ultimately rest on the relational and participative nature of the members of a network. The combined characteristics of formality and informality are what define the working relationship of a network (Bienzle *et al.*, 2007:11). According to Hadfield and

Chapman (2009:55), a network should be balanced with just the right amount of structure, quality, cohesion and connections within a network in order for it to be productive. Networks that are too loosely structured may lead to fragmented developments, while too highly structured networks can devolve into a culture of meetings with little productiveness. In schools both informal and formal networks can be used. It depends on certain aspects, e.g. diversity, relationships, time, goals, issues, density, etc. What is important to note is that the success of networks is very much dependent on each of its members' input towards the attainment of solutions and ideals.

B) The complexity of networks

The complexity of networks is also a form of differentiating between network structures. Networks can exist as part of multiple ties or just one other network tie. It can be multi-dimensional or one-dimensional. In most cases, networks promote the tendency of multiplex ties (Bienzle *et al.*, 2007:14). In network structures a distinction is also made between the strength and intensity of a network. The basic differentiation is made between strong and weak ties. According to Bienzle *et al.* (2007:12) strong ties are permanent, emotionally binding and based on reciprocity. Weak ties are far less intense and serve the purpose of acquiring information and ideas. Networks can be formed vertically (within organisations) or horizontally (between organisations). They can be loosely collected or can be fixed with strong ties. Networks assume different organisational forms that are functional according to their context. According to Bienzle *et al.* (2007:15) differentiation can be made between the following forms of networks:

- Exchange networks
- Support networks
- Advocacy networks
- Result-orientated networks
- Process-orientated networks

These networks are used depending on the specific reason for the network to exist. An example in schools could be that exchange and support networks can be used by individuals to discuss and exchange information and ideas, while result-orientated networks can be used to improve grade results, internal or over a range of schools.

Hadfield and Chapman (2009:67-73) also distinguish between a range of different network models that can be used in schools, each with its own advantages and disadvantages. The following network models are indicated by the authors:

- Sub-network structure: These are networks that only meet periodically as a whole, but operate on a day-to day basis as sub-networks.
- Wheel and spoke networks: These networks have a clear leader at the centre of the network web that provides information to other members.
- Externally facilitated networks: The network is steered by an external group, such as a university or education authority, which provide the majority of the network leadership.
- Integrated networks: These networks have a high degree of overlapping membership, but are limited in numbers.
- Concentric networks: The steering group is at the centre of the network with network members organised in a concentric manner around the centre of the network.
- Thematic or role-based networks: These networks configure around members with similar roles, such as newly qualified teachers.
- Process-based networks: These networks adopt a very limited number of processes, which dominate their structure, e.g. subject specialists working on lesson planning.
- Cross-phase networks: These networks involve partners from primary and secondary schools and collaborate because of a shared focus, i.e. thinking skills and enquiry methods.
- Virtual or 'light-touch' networks: This network has few lasting groups and is brought together for shorter projects.

The previous author presented different network models that are used in organisations. These networks are task specific and can be used for different purposes in schools e.g. process-based networks and cross-phase networks.

Muijs *et al.* (2011:47) is of opinion that no one form of network is more effective than another, but is rather characterised by the nature of its relationships, objectives and priority. Furthermore, it appears that networks are more effective if they don't have a specific form imposed upon them. Muijs *et al.* (2010:16-23) and Muijs *et al.* (2011:40-46) categorise networks according to seven key dimensions. These dimensions are:

- Voluntarism or coercion – Schools can voluntarily come together to form a network with good reciprocity between them. On the other hand two schools can be compelled to associate and collaborate by government or authorities, with a “weaker” and “stronger” school relationship whereby the stronger school benefit much less from the relationship within the network than the weaker school.
- Power relations – Unequal relationships will occur frequently where a strong and weak school are paired within a network. This shouldn’t be the case in voluntary networks as the partners in the network work together to solve problems on an equal basis.
- Network density – This has to do with the frequency of involvement. The higher the density of networks the more complex it becomes. Thus, higher density is not always desirable because of redundancy in having too many contacts. Low density within a network can, on the other hand, lead to too little involvement and effectiveness.
- External involvement – In most cases networks are formed by external agencies or authorities. Sometimes the external involvement is only required at initialising the network while in other cases they could be fully involved as part of the network. Sometimes networks exist entirely without external involvement.
- Different time frames – Networks can be more or less permanent or can be formed only for a certain project or initiative. Networks shouldn’t be maintained indefinitely if there is no intent in their functioning and operation.
- Geographical spread – Networks need not only be limited to local affairs, although it has the advantage to deal with local problems that might occur. With technological advances networking has become much easier and widespread. Regional, cross-local and even global networking can take place (par. 2.2.4.1).
- Density of schools – This has to do with the number of schools involved in a specific network. Too many schools in a network may lead to clumsiness while too little schools can lead to being too one-dimensional within the network. The higher the density the more collaboration is needed within a network for the effective use of knowledge, skills and resources. The sealing off of networks can also be problematic as no new members can be accommodated which can create a sense of mistaken wellbeing.

The above factors are seen as important aspects that should be taken into account when establishing a purposeful network. In section 2.3, this issue will be further dealt with. These factors will also be considered when finalising the questionnaire that will be used in the research study. It will further be explored when presenting the framework for the research study that deals with the forming of networks for professional development of school principals in diverse contexts (chap. 6).

Kiggundu and Moorosi (2012:217) agree with some of the principles of the previous author. They suggest that networks are underpinned by four important principles, namely:

- Voluntarism – Members of the network get together out of choice.
- Collaboration – Members of the network work together to generate and share knowledge.
- Participation – Members of the network actively participates, which defines the nature of membership.
- Ownership – Members of the network complement each other because of different interests, knowledge and skills across the participants in the network.

Jackson (2006:284-288) is of opinion that schools need to redesign themselves as enquiry-based professional communities. The author states that: *“Enquiry has increasingly been found to be a liberating force for changing the situation in school improvement projects and network programmes around the world”*. He defines three levels of learning networks:

- Within school networks – Involving groups of staff in networks and collaborative enquiry gives opportunity for professional development for those who engage in it as well as for whole-school learning (par. 3.4 & 3.5).
- School to school networks – This level of networking is conducive for innovative activities. It has the potential of school wide collaborative enquiry that can empower all staff at all levels. Leadership can also be enhanced in this level (par. 3.4 & 3.5).
- Networks of networks – Knowledge transfer within and between different networks can be found at this level of networking. Networks that are diverse in affiliation and not homogeneous hold the best potential for professional development (par. 3.4 & 3.6).

With all the above authors' viewpoints taken into account it is clear that networks can exist on many different levels and because of various different reasons. Networks can also have different dimensions. It depends solely on the participants within the network what the reasons for the existence and purpose of each network is. It is also the responsibility of the members of a network to realise on what level the specific network will function. Another factor of immense importance is that the greater the leadership and collaboration within the network, the higher the level of networking will be present. The following section will look into the different types of networks that can be formed.

2.2.3.2 Types of networks

The type of network refers to the specific purpose for a network's existence. This purpose can be internally or externally motivated and activated and depends on the rationale of the architects of the specific network. Networks can also develop from one type of network to another as the network matures and the functions or the members within the network change, e.g. a network can change from a mere social gathering to a more formal type network that comes together regularly, as members see the value of each other's opinion. The environment that a network exists in can also have an influence on the network. Factors like time, proximity of members and availability of members can influence a network's functioning, which in turn can create a network type change (par. 2.2.2; table 2.1; 2.3.2).

As explained earlier (par. 2.2.3.1) Evans and Stone-Johnson (2010:204) advocate that networks are contextually situated and therefore varied. In terms of overall structure, networks may be formally constituted, informally connected or even be internal in a single organisation. The following types of networks are examples of networks that can exist according to purpose:

A) Learning network

Moore and Rutherford (2011:70) define a learning network as *"a collaborative group of educational practitioners sharing relationships based on trust, loyalty and reciprocity engaging with one another to enquire into practice, to innovate to exchange knowledge and to learn together"*. A learning network is a type of network with the main purpose of learning from each other about specific shared concerns. According to Rajagopal *et al.* (2011:4) networking is linked to a deeper meta-cognitive level, namely the attitude of the member. Each member must aspire to gain as much knowledge and expertise as possible about certain issues and try to incorporate it with their own activities. Members can also discuss and ask for advice from others on current issues and obtain the perspectives of others from their own experience (Lieberman, 1996:52). This type of network is ideal for professional development purposes as members can evaluate each other and recognise where weaknesses and limitations exist and in which areas improvement will be required (par. 3.4 & 3.5). An example of a learning network is a mentoring and coaching programme at school for the induction and welcoming of newly appointed teachers. It can also be successfully used for other purposes, e.g. professional development of school principals, which is the focus of this study (par. 3.5).

B) Clustering

Clustering as a type of network can be seen as a group of interrelated organisations located in a limited geographical area (Predic & Stosic, 2013:309). Members of the cluster (network) contribute towards the productivity and innovation capabilities of its members. The geographic

concentration of members facilitates the development of trust and transfer of knowledge, by doing so, learning from one another (Steyn, 2012:64). It can also establish specific infrastructure and institutional support (Predic & Stosic, 2013:309-310). Hadfield and Chapman (2009:35-37) promote three types of clustering:

- A hub and spoke model – at the centre of this network is a central powerful organiser through which the vast majority of activities flow. It draws in the other organisations and coordinates their work in the network. An example of this type of network would be a university that acts as a hub that provides support to different schools for the purpose of improvement in a specific area of the school.
- A hub and nodes structure – there is still a single central organisational focus, but it only links directly to a number of node points and not directly to all the members of the network. These nodes act as mini-hubs which orchestrates the majority of network activity. Each mini-hub can have a different network approach. An example would be schools that are already supported by a specific higher education institution and have developed sufficient capacity to provide assistance to other schools with similar challenges.
- A crystalline network structure – this structure reflects an idealised network as there is symmetry of the interconnections, to the extent that there appears to be no one coordinating hub, with each member of the network acting as a cross link node.

An example of simple clustering in education could be when a few schools in the same area form a cluster to work together and share resources to improve productivity, i.e. through the use of sports fields, resources and learning material. This type of network can be significantly exploited in a South African context with its diversity issues, where some schools in a specific geographical area might have better infrastructure and know-how and can support less fortunate schools to improve. This can raise the general standard of education in the specific area as well as improve relations between different cultures (par. 2.2.3.1 & 3.6).

C) Teacher networks

In an educational sense, this type of network can be used to enhance the continuous professional development of educators (Mullen & Kochan, 2000:185). These networks provide the opportunity for teachers to collaborate and solve problems with specific relation to schools and also to share common goals (Angelides, 2010:454) (par. 3.5). An example of such a network is a group of teachers collaborating and sharing good practices to improve the instruction of a specific subject for the purpose of improved student results. In a study on

networks in schools that was done in Cyprus, total school improvement was observed. Small internal collaborative networks were built between teachers, students and parents with positive outcomes to all stakeholders (Angelides, 2010:463). Tafel-Viia *et al.* (2012:182-183) typifies five types of teacher networks, namely:

- Intra school networks: These networks are constituted within the organisation and its members comprise of teachers, students, board members, etc. Its main purpose is to gain new information and knowledge. It has a loose structure and its cooperation is centralised.
- Sector networks: These networks encompass different field-specific collaborations with, e.g. businesses, professional organisations, unions, etc. Teachers can obtain valuable information and expertise from these sources outside the school. These networks usually have a leader and coordination is dispersed and the roles of the different parties are not clear-cut.
- Reform-related networks: These networks are formed and developed within the framework of state-initiated educational reform. Public sector representatives are linked up with the education sector to work on issues like curricula and standards. This network has a top-down structure with a central leader and dispersed coordination.
- Inter-sectoral networks: These networks involve cooperation between organisations. This includes cooperation between schools, teacher unions and associations, vocational colleges and higher educational institutions. It has a bottom-up structure and is the most centralised network type.
- International networks: These networks emerge from international projects and programmes. This network is the most diverse and includes international teacher unions, associations, universities and institutions. Teachers that are part of this type of network gain the most diverse range of sources of new information and knowledge. It tends to be centralised and have a hierarchical structure with a clear division of roles.

As mentioned, these networks can contribute to the professional development of teachers. The characteristics of the different types of teacher networks will need to be taken into account when establishing a network according to its functions, role players and specific purpose (par. 2.3).

An important view is proposed by Hadfield and Chapman (2009:17). Concerning teacher networks, the authors are of opinion that the greater the number of teachers involved in a network the better the chance that groups of people with similar interests, challenges and

needs can be brought together to support each other. This means that the size of networks is an important structural factor to consider when establishing a teacher network for a specific purpose (par. 2.3). Involvement in teacher networks can have a positive impact on the motivation of teachers and their students, ultimately promoting a higher level of learning. Teacher networks can also lead to leadership development within the network as well as outside of the network. (Angelides, 2010:454; Lieberman & McLaughlin, 1992:674). Leadership development is the focus of the research study on the professional development of principals through networks. This issue will be more extensively discussed in the following chapter.

D) Horizontal and vertical networks

Jervis-Tracey (2005:304) is of opinion that most networks aspire to function as horizontal partnerships valuing cooperation and mutual exchange. In horizontal networks there are a flat leadership structure allowing for the involvement of people and not positions. The author further states that this is a specific pre-condition for the success of a network. In vertical networks, there can be a general formal, top-down control mechanism or an informal, supportive bottom-up structure. These types of networks are also commonly used in a business sense. Horizontal cooperation could contribute to widen the influence of an organisation and an economy of scale, while vertical cooperation could have an influence on all the connected partners of a network (Predić & Stošić, 2013:309). These factors will need to be taken into account when establishing a network for developmental purposes. The use of horizontal networks also agrees with the literature on the characteristics of networks that collective reciprocal relationships need to be created for successful networking and thus development to take place (par. 2.2.2 & 3.4).

E) Inter-organisational networks or partnerships

This type of network is seen as collaboration through joint decision-making and production, and involve different agencies negotiating shared goals and are committed to working together on the long term (Muijs *et al.*, 2011:12; Jolink & Dankbaar, 2010:1437; Bienzle *et al.*, 2007:8). This type of network can also be used to provide support for professional development (Mullen & Kochan, 2000:185) (par. 3.5). Partnerships are very important when it comes to educational networks. An example of this type of network is schools that collaborate with churches, health departments, businesses, etc. to initialise, deliver and support various programmes of the school. The *Quality Learning and Teaching Campaign (QLTC)* that was launched in South Africa is an example of such a programme (par. 2.4.2.2). Partnerships will be discussed in more depth in par. 2.3.1.3.

F) Ad hoc networks

This type of network is set up in response to a particular need or crisis that may have come up at a specific time (Muijs *et al.*, 2011:11). An example is a network that is formed to fight an infectious disease under school children and informing other schools about it. This type of network's existence is short-lived and the network is usually dismantled after the crisis was prevented. On the other hand, after the specific crisis is over, this network can also develop into a regular, more permanent network that can function to overcome many other problems that the members of the network can experience. These networks mostly come into being because of a societal crisis and is socially constructed. This concurs with the views of Townsend (2013:358) (par. 2.3.2.1). As this network has a temporary objective, its value towards the improvement of individuals' skills and expertise is doubtful because of a lack of developmental purpose.

G) Leadership networks

According to Hoppe and Reinelt (2010:600) this type of network is a response to a rapidly changing world that is increasingly interconnected where much more learning and collaboration is needed to solve complex problems. Leadership networks can provide support and resources to leaders and can increase the impact they have in their organisations. The above authors further states that leadership networks are a much needed entity for future leadership development efforts. For the purpose of this study this type of network is very important as the research is based on the professional development of principals (school leaders) who want to increase their capacity through participation in a network (par. 1.1; 1.3.2 & 1.4). Leadership and professional development will also be further explored in chapter 3 of the research.

The types of networks that were discussed above are only but a few of the many possible purposes for the existence of a network. Although networks can be consciously and externally designed, they will inevitably reflect the influence of internal drivers that will shape them. Each network's structure will be different and will depend on its purpose and the members of the network.

Networks exist because of a specific purpose that brings about the connection and association between the members of a network. Networks can also present a range of functions for different individuals. Thus, the functions of networks will be looked into as part of the discussion in the next section.

2.2.4 Functions of networks

The functions of network relate to the purpose that it serves. Networks can be created for many different functions. Networks appear functional because they respect the independence of institutions and still constitute a system. They depend on ties of communication, which do not disintegrate because of funding or power (Bienzle *et al.*, 2007:8). Networks can be divided into three main groups according to their functionality, namely social, personal or professional networking.

2.2.4.1 Social networking

As was discussed earlier, informal networks arise from social movements because of common ideals and issues (par. 2.2.1; 2.2.3.1 & 2.2.3.2). This brings to the fore the issue of social networking. Social networking is defined as a network of social interactions and personal relationships (Oxford Advanced Learner's Dictionary, 2015). Another definition of social networking is: *"the use of internet-based social media programs to make connections with friends, family, classmates, customers and clients. Social networking can be done for social purposes, business purposes or both"* (Investopedia, 2015).

Authors like Anon (2010:5), Hung and Yuen (2010:705), Barnes (2009:735) and Johnson (2009:98) look into social networks by which networking is done through technology, e.g. computer and mobile device applications designed for social interaction. Johnson (2010:98) is of opinion that although these networks can be valuable for communication purposes, it is not conducive for the building of professional relationships as part of networks that are useful for empowerment or professional development. Steyn (2012:64) agrees with the above authors by stating that electronic networks such as e-mail and search engines can assist individuals to access valuable information and to exchange ideas with experts who would otherwise not be available. The researcher is of opinion that networking that is done through means of technology can be valuable for the development of professional and work relationships as it can lead to connections with individuals in the same profession. The problem lies in the fact that there is an absence of personal contact and its related factors that is necessary for communication, e.g. body language, facial expressions, etc. Because of the absence of these personal factors there might be a break-up of true reciprocal collaboration, especially when dealing with serious matters as it becomes difficult to discuss, debate and deliberate on the concerned issues. According to Bienzle *et al.* (2007:9) communication is seen as a crucial functional factor when establishing a network (par. 2.2.2). A lack of communication can bring about misunderstandings, confusion and disagreement that will influence the proper functioning of the network (par. 2.3.2.2).

The observation above is agreed upon by Purcell (2012:34) who promotes a shift in terminology to *online educational networking* as the use of social networking technologies and ideas for educational purposes. This is a notion that social networking should be used more objectively and for educational purposes. As discussed in a previous section, it is possible for informal networks to develop into more formal structures (par. 2.2.3.1). The argument can thus be that a network can start off by being an absolute social connection that was set up for mere communication and enjoyment purposes, but can develop into a formal network that can be of support for personal and professional matters.

The concept of online social networking is a relevant subject in society and is used by most people around the world. In recent research that was done by The Pew Research Centre the results showed that 74% of all adult internet users use social networking sites. This number was even higher for people under the age of 50 years. These sites include, *Facebook, Twitter, LinkedIn, Instagram* and *Pinterest* (Pew Research Centre, 2014). In the last decade, it has made communication between people easier and faster. Social networking, if utilised and employed effectively can be useful for networking, especially for establishing new relationships. It can also be used for communication and knowledge transfer purposes. The researcher is of opinion that for professional development objectives this type of network might not be as effective as traditional face-to-face networks because of the lack of personal contact. Online social networking will be explored further and considered when finalising the questionnaire for the research study.

2.2.4.2 Personal networking

According to Bienzle *et al.* (2007:8) personal networks are an organisational answer to the complexity of needs of pedagogic professionals. Creating personal networks are not only helpful for individual problem solving but can also be of assistance in organisational insufficiencies. Personal networks related to the educational occupation are highly important as teachers share knowledge, resources, decision-making and responsibilities with each other. Personal networks can thus be seen as the basis of a professional community (Bienzle *et al.*, 2007:9). Bienzle further states that because these personal networks create opportunities for work-related and inter-disciplinary cooperation, it also presents a socialising function. De Lima (2008:165) and also Farley-Ripple and Buttram (2013:13) support the view that networks also have a socialising function because it is a process of interpersonal influences among colleagues which can affect their beliefs, attitudes and practice. This notion supports the views from the literature that was discussed earlier that networks can develop from mere informal gatherings to formal networks (par. 2.2.3.1). It also suggests that

interpersonal relations between the members of the network is an important factor for proper network activity (par. 2.2.2).

2.2.4.3 Professional networking

Rajagopal *et al.* (2011:1) defines the activity of professional networking as: *“making connections with other professionals, with or without the intention of making long-term ties with them”*. Members of a professional network must be able to recognise and understand the connections with other professionals in the field so that each member can benefit individually from the network. Once created, professional networks can have many benefits such as constant support, innovation and life-long learning in practice. It can also be used as a platform in which dialogue and conversation can occur, allowing for personal and professional development. An example of this type of network is school principals that work together to overcome similar challenges but also see the importance of networks for their own professional development. They can also collaborate to improve their own schools and those of the other members by mentoring each other on certain issues. This can be done through attending and arranging network workshops, meetings, presentations and conferences. Networking as part of the professional development of principals will be discussed in detail in chapter 3.

2.2.5 Synthesis

Networking, when used correctly, can constitute a plethora of new ideas and knowledge for the members of the network. In their most ordinary form the exchanging of ideas and information between two or more people can be seen as the basis for networking. The setting up of partnerships between different organisations seems to be a necessity for networks to be efficient.

Networks can have many different characteristics. Although each network is different, there are a few universal qualities that must be taken into account for efficient networking to take place. These characteristics include, among others, participation, reciprocal relationships, trust, coordination, leadership, communication, embracing diversity, dynamism and evaluation.

The complexity and structure of a network can also vary to a large amount and is mostly dependent on the purpose for which the network was originally initiated. The forms of networks relates to the foundation of networks and the way in which it functions, whilst the type of network presents the main purpose for its existence. The function of a network has to do with the purpose that a network serves, i.e. social, personal or professional purposes.

Networks don't have to be formal structures with clear leaders, but can also exist as pure informal structures with little or no leadership. A network's functionality is very much dependent on its purpose, members and internal processes and can easily change as time passes and members change. What is apparent, through the discussion, is that networks can be beneficial to its members if utilised correctly. This fact brings about the significance of the use of networks for the professional development of school principals, which is the focus of this research study (par. 1.1).

The discussion in this section on the theory of networks scrutinised the definition, characteristics, structure and functions of efficient networks and networking. How to establish, manage and sustain a functioning network is an important question that needs to be explored. Thus, the preceding discussion and arguments serves as a background to the next focus of the discussion which is the network process.

2.3 THE NETWORK PROCESS

The authors in the preceding argument distinguish between different types and forms of networks as well as their characteristics. In this section the network process will be looked into. To set up a network is not just a once off event, but is rather a specific process that needs to be followed. The process of networking functions on three levels, namely building, managing and sustaining the network. The diagram below illustrates the three components of the network process (figure 2.2).



Figure 2.2: The network process

When examining the diagram above the following details suggest itself. Firstly, a network needs to be established or built with a specific purpose in mind. The second part of the network process deals with managing the network effectively for individuals and organisations to develop, succeed and acquire value from it. The last part of the process deals with sustaining the network over time for continuous use and development. All three steps need to be deliberately managed in order for a network to be fully functional over time. Establishing a network will be discussed next.

2.3.1 Establishing a network

What stands out as a common feature in the literature about networks are the many positive aspects that networks can have for individuals and organisations. However, there can also be some negative aspects of networks which will be looked into. By taking into account the different viewpoints, ideas and beliefs of the authors in this paragraph, the advantages and disadvantages of networks will be studied. The forming of partnerships for networks will also be looked into. Furthermore, networks also need to be created proficiently in order for it to succeed in its purpose, thus guidelines on how to design a sustainable network will be investigated in the last part of this section.

2.3.1.1 Advantages of networks

According to Restine (1997:126) and also Young (2008:2) the quantity of connections is not as important as the enduring, mutual beneficial, true and professional relationships one enjoys. There are many other authors that see the true potential of being part of a network. The following are potential advantages that networks and collaboration can have for individual leaders (principals) and organisations (schools):

- Access to and sharing of information, experiences, skills and ideas (D'Souza, 2013; Farley-Ripple & Buttram, 2013; Predić & Stošić, 2013; Kiggundu & Moorosi, 2012; Rajagopal *et al.*, 2012; Cross & Thomas, 2011; Moore & Rutherford, 2011; Angelides, 2010; Evans & Stone-Johnson, 2010; Jolink & Dankbaar, 2010; Muijs *et al.*, 2010; Kubiak, 2009; Bienzle *et al.*, 2007; Eick *et al.*, 2007; Mathibe, 2007; Jackson, 2006; Jopling & Spender, 2006; Jervis-Tracey, 2005; Lieberman, 1996).
- Acquiring and sharing of, and access to resources (Lewis, 2013; Predić & Stošić, 2013; Moore & Rutherford, 2011; Muijs *et al.*, 2010; Kubiak, 2009; Bienzle *et al.*, 2007; Wohlstetter & Smith, 2000).
- Access to expertise (D'Souza, 2013; Cross & Thomas, 2011; Hadfield & Chapman, 2009; Kubiak, 2009).
- Solidarity, mobilisation and wielding power for systemic reform and policy change (Tafel-Viia *et al.*, 2012; Moore & Rutherford, 2011; Angelides, 2010; Hadfield & Chapman, 2009; Bienzle *et al.*, 2007; Eick *et al.*, 2007; Jackson, 2006; Jervis-Tracey, 2005).
- Benchmarking (Kiggundu & Moorosi, 2012; Hadfield & Chapman, 2009; Bienzle *et al.*, 2007; Jackson, 2006).
- Professional support (Berkowicz & Myers, 2014; D'Souza, 2013; Kiggundu & Moorosi, 2012; Rajagopal *et al.*, 2012; Evans & Stone-Johnson, 2010; Moore & Rutherford,

2011; Bienzle *et al.*, 2007; Eick *et al.*, 2007; Mathibe, 2007; Jackson, 2006; Jopling & Spender 2006).

- Professional development opportunities (Farley-Ripple & Buttram, 2013; Hadfield & Jopling, 2012; Kiggundu & Moorosi, 2012; Rajagopal *et al.*, 2012; Moore & Rutherford, 2011; Angelides, 2010; Jolink & Dankbaar, 2010; Muijs *et al.*, 2010; Hadfield & Chapman, 2009; Kubiak, 2009; Bienzle *et al.*, 2007; Mathibe, 2007; Mullen & Kochan, 2000; Jackson, 2006; Jopling & Spender, 2006; Wohlstetter & Smith, 2000).
- Leadership development opportunities (Berkowicz & Myers, 2014; Farley-Ripple & Buttram, 2013; Lewis, 2013; Hadfield & Jopling, 2012; Kiggundu & Moorosi, 2012; Moore & Rutherford, 2011; The Schools Network, 2011; Angelides, 2010; Evans & Stone-Johnson, 2010; Hadfield & Chapman, 2009; Mathibe, 2007; Jackson, 2006; Jopling & Spender, 2006; Mullen & Kochan, 2000; Lieberman, 1996).
- Personal, emotional and social assistance (Berkowicz & Myers, 2014; D'Souza, 2013; Kiggundu & Moorosi, 2012; Rajagopal *et al.*, 2012; Bienzle *et al.*, 2007; Jopling & Spender, 2006; Mullen & Kochan, 2000).
- Creation of positive learning environments (Farley-Ripple & Buttram, 2013; Lewis, 2013; Kiggundu & Moorosi, 2012; Hadfield & Chapman, 2009).
- Internal capacity building of individuals and organisations (Farley-Ripple & Buttram, 2013; Muijs *et al.*, 2010; Hadfield & Chapman, 2009; Jackson, 2006; Jopling & Spender, 2006; Mullen & Kochan, 2000).
- Enhanced opportunities for innovation and collaborative enquiry (Rajagopal *et al.*, 2012; Tafel-Viia *et al.*, 2012; Jolink & Dankbaar, 2010; Hadfield & Chapman, 2009; Kubiak, 2009; Jackson, 2006; Lieberman, 1996).
- Collective responsibility and problem-solving (D'Souza, 2013; Kiggundu & Moorosi, 2012; Muijs *et al.*, 2010; Hadfield & Chapman, 2009; Kubiak, 2009; Eick *et al.*, 2007; Mathibe, 2007; Jopling & Spender, 2006; Jervis-Tracey, 2005; Wohlstetter & Smith, 2000; Lieberman, 1996).
- Improved motivation and inspiration (Kiggundu & Moorosi, 2012; The Schools Network, 2011; Hadfield & Chapman, 2009).
- Development of partnerships with external stakeholders (Lewis, 2013; Angelides, 2010; Muijs *et al.*, 2010; Eick *et al.*, 2007; Mathibe, 2007; Mestry & Singh, 2007; Jackson, 2006; Jopling & Spender, 2006; Jervis-Tracey, 2005).
- Raising levels of achievement (Kiggundu & Moorosi, 2012; The Schools Network, 2011; Jervis-Tracey, 2005).
- Feeling of empowerment and reduce sense of isolation (Kiggundu & Moorosi, 2012; Moore & Rutherford, 2011).

- Appreciation and valuing of diversity (Smith, 2012; Cross & Thomas, 2011; Hadfield & Chapman, 2009; Mathibe, 2007; Jackson, 2006).

The advantages of network participation, as listed above, can be found in a large number of the broader literature concerned with collaboration and professional development. The potential benefits serve as evidence that networks can have a positive impact on individuals and organisations. It is therefore quite clear that membership of a network can lead to several potential benefits for individuals and organisations. The numerous constructive aspects that networks convey, further suggest that it can have a positive impact on leadership and professional development in schools, which is the central focus of the research study.

While networks can have many benefits for its participants, there can also be some negative aspects concerning involvement in a network. Thus, the next focus of the research will be on the possible challenges and disadvantages relating to networks.

2.3.1.2 Challenges and disadvantages of networks

As discussed in the previous section, there are many positive outcomes that networking can bring about. On the other hand, Moore and Rutherford (2011:81) are of opinion that because of its complexity and their diversity in terms of human relationships and power positions, there can also be some challenges. In a study done by O'Brien, Burton, Campbell, Qualter and Varga-Atkins (2006:409) in England, the authors are sceptical about the objectives of *Networked Learning Communities (NLCs)* and if it will be able to achieve what it was set out to achieve. This brings into the account that there can also be difficulties and challenges concerning the development, sustainment and management of networks. These challenges can be displayed as negative features of networks. In many instances, these challenges transpire because of a misguided approach of people towards networking. According to the broader literature, the following aspects can be distinguished as challenges for successful networking:

- The specific environment or location the network is located in can be a challenge. Also if some members or organisations is fairly isolated it can bring about some practical problems (Muijs *et al.*, 2011; Evans & Stone-Johnson, 2010; Wohlstetter & Smith, 2000)
- The attitude of the networker and the personal agenda of each member can bring about some conflict that will make the functioning of the network difficult (Rajagopal *et*

al., 2012; Moore & Rutherford, 2011; Cross & Thomas, 2011; Angelides, 2010; Jervis-Tracey, 2005; Lieberman, 1996)

- Time constraints to bring all members of the network together can be problematic. This can occur because of busy schedules of members (Moore & Rutherford, 2011; Evans & Stone-Johnson, 2010; Penuel & Riel, 2007; Mullen & Kochan, 2000)
- The lack of knowledge on networking and a common understanding on how to successfully network may create difficulties in the networking process (Kiggundu & Moorosi, 2012; Evans & Stone-Johnson, 2010)
- Lack of leadership and a power conflict in the network may lead to organisational disequilibrium (Moore & Rutherford, 2011; Evans & Stone-Johnson, 2010; Mullen & Kochan, 2000; Lieberman, 1996)
- The lack of commitment and ownership by network members can cause that networks don't have the impact it should have (Kiggundu & Moorosi, 2012; Evans & Stone-Johnson, 2010; Wohlstetter & Smith, 2000)
- A lack of communication will bring about misunderstandings, confusion and disagreement that will influence the proper functioning of a network (Jervis-Tracey, 2005; Wohlstetter & Smith, 2000)
- A lack of common vision or purpose may possibly be the greatest challenge that can occur in a network. Trust and reciprocity are two important factors that are supposed to be part of a network, but that won't be the case if the members of a network are not in agreement (Rauch, 2013; Kiggundu & Moorosi, 2012; Evans & Stone-Johnson, 2010; Jervis-Tracey, 2005).

These are some of the main challenges that need to be considered when establishing a network, especially in diverse areas. The general appreciation of what the network's aims are should be understood by all participants for a network to be viable. It also concurs with the views as was discussed earlier in the chapter (par. 2.2.1; 2.2.2 & 2.2.3).

Apart from the many challenges of networks, as discussed above, there can also be some disadvantages associated with networking. These features may occur as part of networking and are not beneficial to the operation of a network. Networks can easily become exclusive because members of the network fail to recognise that they need the input of others outside of the network and do not want to share their ideas and knowledge, which will have the result of becoming a clique rather than a network (Hadfield & Chapman, 2009:46; Lieberman, 1996:54). This can have the additional negative effect that weak practice may be spread through the network because no new experiences and skills are added to the network (Moore

& Rutherford, 2011:76; Penuel & Riel, 2007:612). There is always the possibility that some members of a network become too dominant and want their opinion and beliefs to prevail (Jervis-Tracey, 2005:305). Leadership development can then also be unsuccessful because of autocratic leadership styles by some members of the network. Alternatively, some members can become inattentive and inefficient and don't provide much in terms of reciprocity in a network. Another disadvantage of networks is the possible bureaucratic overload that can occur, especially in networks that are forced by government initiatives (Moore & Rutherford, 2011:75). Networks can also have the disadvantage that some organisations (schools) lose their identity and autonomy to become like some other member of the network (Moore & Rutherford, 2011:75).

Positive and negative aspects of networks can co-exist, but the challenges need to be recognised and addressed to promote a successful network. Negative aspects must also be acknowledged by all stakeholders and shouldn't prevent the network to serve its main purpose, but rather be resolved by the members of the network.

Much have been said about the establishing of partnerships for successful networking (par. 2.2.1). Thus, that will be the topic of the discussion in the next section.

2.3.1.3 Partnerships

The establishing of working partnerships with stakeholders can be very beneficial for organisations. It is no different with schools. Schools' networks should aim to give practical support on transforming education by building schools in partnership with businesses and the wider community. In a study by Woods, Armstrong, Bragg and Pearson (2013:763) business management were brought to schools especially with the intention to provide support towards non-educational aspects of schooling, i.e. finances and site management. Senior business managers were connected as leaders across school partnerships. This had a positive impact on non-educational aspects in the sense that principals had more time for the core business of education, i.e. teaching and learning. It can be beneficial for schools to have functioning linkages with their external environment (Mathibe, 2007:531; Jervis-Tracey, 2005:291). An example of such a partnership can be found in the United Kingdom where special schools work in partnership with other organisations to support the learners with special needs (Rose, 2012:84). Mathibe (2005:532) is of the opinion that the collaboration between people and organisations may result in a more responsive, more flexible, and ultimately more effective organization. Networks need to take all stakeholders into consideration when engaging in information and idea sharing and in the creating of sustainable partnerships for the benefit of all the parties involved.

Cassar (2013:5) notes that school leaders need to create quality partnerships with all stakeholders in the school community. Setting up of these partnerships will most likely result in building the capacity of the school in various ways. The stakeholders and organisations in the education system fulfil a unique, but purposeful role on different levels towards the school principal as an educational leader. Partnerships with stakeholders in education correlate with the government's *Quality of Learning and Teaching Campaign (QLTC)* whereby all stakeholders of a school pledge to collaboratively ensure quality education for learners (Modisane, 2014:6; DBE, 2012:3) (par. 2.4.2.2). Partnerships between schools and other role players include, amongst others, schools, teachers, school support staff, learners, parents, Education Departments, Principal's council, Higher Education Institutions, Governing Body Federations, Unions, community partners, e.g. churches, social work, emergency services, sponsors, businesses, sports clubs and agencies, etc. (Van der Berg, 2013:12-13; Smith, 2012:128; Haydon, 2007:37; Price, 2007:18; Carrington and Robinson, 2006:326-327; Lunenberg & Irby, 2006:328; Sigford, 2006:70; Botha, 2004:242; Chadwick, 2004:80; Reese, 2004:18; Riggins Newby & Hayden, 2004:2; Van Deventer, 2003(b):260; Cairney & Ruge, 1999:3; Potgieter, Visser, Van der Bank, Mothata & Squelch, 1997:8; Lieberman, 1996:54). Figure 2.3 below is a schematic representation of the partnerships a school can have with different stakeholders.

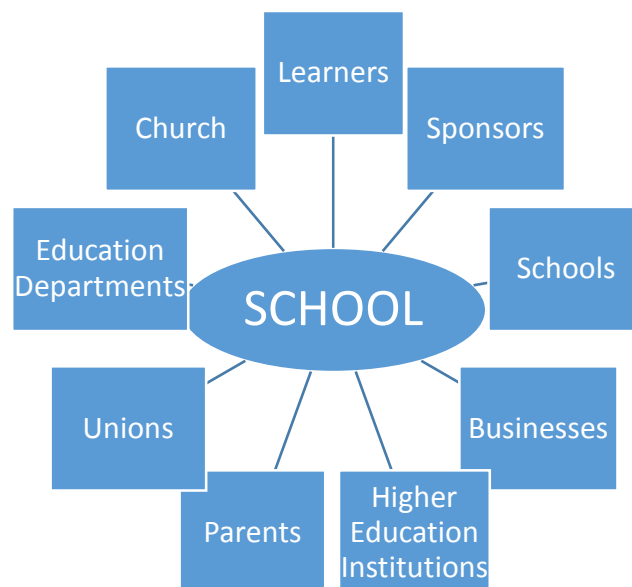


Figure 2.3: An example of the types of partners that can be involved in school

Principals need to make a concerted effort in order to develop relations with associated individuals and organisations, because the matter of networks is regarded by many as a much needed entity of an organisation (Link, 2012:1; Muijs *et al.*, 2010:6; Jervis-Tracey, 2005:291;

Reese, 2004:19; Riggins Newby & Hayden, 2004:1). As indicated earlier, the term networking implies *inter alia* the establishment of connections. Jackson (2006:274) promotes the creation of *Knowledge Networks* from *Networked Learning Communities*, which works on the basis of collaborative enquiry for school improvement. He advanced the idea that networks are useful in organisational form that can stimulate innovation and facilitate knowledge transfer. Humada-Ludeke (2013:8) uses the term *Professional Learning Communities (PLC)* when referring to partnerships or networks whereby school leaders can develop. As explained earlier (par. 2.2.3.1), Evans and Stone-Johnson (2010:204) advocate that networks are contextually situated and therefore varied. The authors developed a *Personal Professional Networking Model (PPNM)* whereby one has to translate the attitude towards networking to a deliberate intention in order to activate networks. Within this model, one also has to develop skills to network.

From the above argumentation, it is clear that the establishment of partnerships with the school's external environment is important, as it can be beneficial towards general school improvement. What is also important to note is that professional and personal partnerships in the form of networks can contribute to a large extent towards an individual's own development. If correctly introduced, networks can be utilised intentionally and productively for professional development purposes. These facts correspond with the aims for the study (par. 1.4.2).

From the preceding argument that was derived from the literature on partnerships the importance of this aspect for successful networking was clearly illustrated. Guidelines on how to establish effective networks will be discussed next.

2.3.1.4 Guidelines to establish a network

In order to be able to establish a successful and functioning network one must prepare well and consider certain important aspects and characteristics relating to networks. These aspects include relational, functional and structural features (par. 2.2.2).

Networks have different starting points and can have various objectives. As explained earlier, some networks are informally formed without much structure or purpose, but can emerge into more formal structures. Formal networks need to be created efficiently for it to be effective. The set-up phase of the network is crucial for its performance since it will help the partners to define the path of the network (Bienzle *et al.*, 2007:36). The following guidelines can be used as a useful starting point for establishing a formal network with clear objectives.

To be effective, a network needs to both support and challenge the members of the network. Bienzle *et al.* (2007:54-57) promote the following requirements to be taken into account when setting up a network: Identifying the key players of the network by taking into account expertise; coordinating the unique role and task of each partner member; and deciding on the type of membership and potential partners of the network. According to Hadfield and Chapman (2009:59), establishing a network involves cycles of mobilisation. First the initial activists must bring into the network potential partners to strengthen the network by adding social and cultural capital, intellectual capital, organisational capital and physical capital. This is called the phase of micro mobilisation. Secondly, macro mobilisation must take place by drawing in larger numbers of network members. During this phase the basic processes and structures can begin to take form, e.g. establishing roles and responsibilities, creating opportunities for learning, facilitation of skills development, etc. Cross and Thomas (2011:151-153) recommend the following four-point action plan for building a successful network. Firstly, analyse what the objectives of the network are, which type and how many people you want to involve and what the potential benefits of the network can be. Secondly, you need to de-layer by getting rid of those attitudes, people and issues that can have a negative impact on the network by not sharing the common vision of the network. Thirdly, you need to diversify by building the network with the right kind of people who will help you to achieve your objectives. Lastly, one must make sure that the full potential of the network is being reached by effectively utilising all the knowledge, skills and expertise of the members.

Humada-Ludeke (2013:44) discusses the idea of creating a *Professional learning Community (PLC)* for principals. In setting up a *PLC* she also promotes the notion that networks should have a clear mission, vision, goals and objectives in order to be effective. Also Muijs *et al.* (2011:143) support this view and affirm that the setting of clearly formulated, measurable goals will determine the success and sustainability of networks. A shared mission as well as a joint understanding of the goals that are linked to clear actions that are achievable should be developed by the members of a network. Furthermore, there needs to be clear benefits to all individual schools or organisations in the network or lead to an overarching outcome that is of importance and relevance to all members involved in the network. Another key factor for successful networking is finding an appropriate partner school or organisation within a similar location, with similar values and beliefs, but taking into account cultural differences and diversity issues (Muijs *et al.*, 2011:144) (par. 3.6). Other crucial factors for effective networking are the establishing of clear communication channels between all partners to avoid any misunderstandings. The building of trust between all network members is seen as an absolute necessity (Muijs *et al.*, 2011:145-146).

Bienzle *et al.* (2007:58) advance the idea of a logical framework matrix that is used for European educational networks, to assist in the complex task of formulating a network in a coherent manner. The framework can be very useful for setting-up a network. It is based on four main questions to be asked by the role players when establishing a network. The essence of the framework is demonstrated in table 2.2 below. The framework can be widely exploited to direct and assist individuals and organisations to establish networks. It includes general aspects that can be utilised across a range of network types.

Table 2.2: A logical framework matrix (Adapted from Bienzle *et al.*, 2007:58)

General aims	• What are the the general aims to which the network will contribute?
Specific objectives	• What specific objectives does the network intend to achieve in order to contribute to the general aims?
Expected results	• What are the expected tangible and intangible results in order to achieve the specific objectives?
Activities	• What are the key activities to be carried out and in what sequence, in order to produce the expected results?

The logical framework matrix, as presented above, provide clear guidelines on how to establish a suitable network for individuals. It can also serve as a clear directive towards creating long-term functional partnerships in the form of networks for individuals and organisations who have the right approach towards participating in a network. Furthermore, it can be used to present personal and professional development opportunities for school principals, which is the core purpose of the research study (par. 1.1 & 1.4).

After completing the literature chapters on networks and leadership, this framework, as adapted from Bienzle, was utilised towards the generating of the research questionnaire that was used in the study. It was also be relevant and useful whilst finalising the framework for the rationale of the study, i.e. the use of networks for the professional development of school principals in diverse contexts (chap. 1).

As was mentioned earlier in this section, one should remember that establishing a network is a process and only the first step towards successful networking. Thus, the second component of the network process – managing a network, will be the focus of the discussion in the following section.

2.3.2 Managing a network

The second component of the network process has to do with the management of a network. When establishing a network it doesn't mean that every endeavour will occur efficiently and that there will not be any challenges. Managing a network, therefore involves the coordination, organisation, steering and control of the processes and individuals within a network (Bienzle *et al.*, 2007:61). Consequently, the control of a network will be discussed as well as guidelines on how to manage a network and its related challenges.

2.3.2.1 Control of a network

The control of a network depends largely on the type of network. An informal network will have less control as the matters of the network are less structured and the members of the network are more loosely connected. The control will usually be in the form of interdependence of members. In a formal network there will generally be more control because it was created for a specific reason and with specific or general aims in mind. Therefore, there will be a more formal organisation of the activities of the network and the actions of the members in the network to be able to achieve specific outcomes (Townsend, 2013:358).

The level of control also depends on the previous success and operation of the network (par. 2.2.3.2). When a network is established well and it functions acceptably, less control will be needed. Most of the members in the network will understand the joint rules as well as their own responsibility towards the network. Members will also take ownership of the network's matters and there will be little challenges. On the other hand, a network that struggles to operate from the onset and have specific problems in their functioning will need more control. These challenges can range from a lack of trust, commitment and knowledge of members to time constraints and the wrong attitude towards networking (par. 2.3.2).

The control of a network can be internally or externally motivated. Internal control is created by the members of the network because of the trust that is established between them in their pursuing of certain common results. The members of the network are their own gatekeepers, which assure the proper working of the network. External control is usually done by organisations which assisted with the setup of the network or has some or other interest or

concern with the network. These external organisations can include Education departments, unions, other schools, sponsors, churches, donors, etc. External control is done to insure that the joint interests of all the stakeholders of the network are sound and that the expected outcomes are achieved by the network (Hadfield & Chapman, 2009:68).

Bienzle *et al.* (2007:15) identify four functions of network control. These functions are:

- Selection: This function relates to which participants should be part of the network.
- Allocation: This function includes the assignment of duties and distribution of responsibilities to the participants.
- Regulation: This function has to do with cooperation in the network for the development and enforcement of rules between the participants.
- Evaluation: This function covers the complete network of cooperation. This topic will be further discussed in the section on sustaining of networks (par. 2.3.3.1).

To manage or control a network can be challenging at times. These functions on network control, as presented above, can be of much assistance in managing a network.

Because networks are made up of individuals with various ideas, viewpoints and perspectives about the management of networks may at times present some challenges. These challenges need to be acknowledged and effectively dealt with for successful networking to take place. Thus, the challenges of managing a network will be discussed in the following section.

2.3.2.2 Challenges in managing a network

According to Bienzle *et al.* (2007:61) networks differ from other cooperative projects in terms of structural and functional characteristics (par. 2.2.2). This has the implication that members in a network could be confronted with challenges particular to networks. Bienzle *et al.* (2007:62-84) advance the following specific challenges for network management:

- To manage the diversity of actors in the networks:
Diversity includes all the differences between people, i.e. gender, age, cultural background, disability, religious or ethnic groups, sexual orientation, personality, etc. (Smith, 2012:19). One needs to take into account all the aspects of diversity within the network. This issue could be one of the most difficult challenges for managing a network. There might also be a difference in the levels of commitment of members of the network. The art of network management is to find the right place and role for each

member of the network (par. 2.2.3.1). Networks in diverse contexts will be explored further in par. 3.6.

- To work with the intercultural differences within a network:
Intercultural differences can't be ignored and it is necessary to create an intercultural sensitivity. Differences can occur because of human interaction but also yields the opportunity for learning from other people about a specific issue and personal development (par. 2.2.3.1 & 3.6).
- To organise the network into sub-units and ensure connectivity of the parts:
Larger networks need to divide into subgroups in order to function well. These groups can be organised according to matters relating to specific members of the network, certain activities or geographical proximity of members (par. 2.2.3.1).
- To use the potential of new technologies for network cooperation:
Communication is a fundamental element of network cooperation. Getting all the members for a network together can sometimes be problematic. Networks that are geographically spread can only meet sporadically and therefore need to make use of communication technology, e.g. e-mail, chat groups, video conferencing, weblogs, newsgroups, etc. (par. 2.2.4.1).
- To apply a flexible management approach:
Networks can be difficult to manage because of all the above reasons. It is therefore necessary to apply a flexible management approach. In a study of European networks Bienzle *et al.* (2007:82) promote the idea of *Agile Project Management* where the focus is on leadership in the network, rather than planning and controlling it. Through this approach network members are given freedom to think for themselves and do what is fruitful, within the boundaries of the network aims.

The above challenges need to be considered when dealing with network issues. These specific challenges of network management brought about valuable information that was brought into consideration while drawing up the questionnaire for the study.

If the challenges in a network is efficiently controlled, effective networking can take place. Guidelines on how to manage a network will assist the participants in the network with this task. The following section will focus on guidelines on how to manage a network successfully.

2.3.2.3 Guidelines to manage a network

Networks will differ from each other because of different aims and role players. When managing a network the most important factor to take into account is the fact that there are

people involved. People have diverse personalities, backgrounds and aspirations. There is no blueprint that will work for the management of all types of networks. The following guidelines are presented as a general approach in managing a network successfully:

- Regular contact times and meetings need to be established with specific aims in mind (D'Souza 2010:197). This will have a positive effect on the reach of the desired outcomes of the network's business.
- Communication methods need to be established at the beginning of a network's functioning. According to Bienzle *et al.* (2007:79) communication is essential for any network to function properly.
- The expectations of all the members of the network need to be taken into account when dealing with issues of the network. Some issues might be of more importance for some people than for others.
- The network needs to be consistent in its functioning, otherwise its operations and effectiveness might break down (D'Souza, 2010:197). Members of the network might lose interest in the matters of the network if they convene infrequently.
- Tasks and responsibilities need to be delegated between members of the network according to strengths and interests (D'Souza, 2010:198). This will bring in fresh perspectives and help that all members of the network share in decision-making and accountability.
- The differences of all members in the network should be taken into account for everyone involved to take ownership of the network (Bienzle *et al.*, 2007:62). Diversity issues encompass more than just cultural, religious and gender differences. It also includes differences in capabilities, emotions, interests, talents and thoughts of the members of a network (Smith, 2012:21).
- People management practices that create a climate for networking need to be established. Jolink and Dankbaar (2010:1436) state that a coherent and consistent system of people management is necessary for networks. Practices for people management include supervisory support, training and development, collaborative programs and projects, time pressure and rules regarding knowledge disclosure.
- All internal and external factors should be taken into account when dealing with issues. These factors can include time constraints, limited resources and knowledge, the role of external stakeholders, e.g. Education departments, unions, tertiary institutions, etc. and the motivation of members. Excessive demands and goals that can't easily be attained should be limited as this can discourage innovation and development of the network.

- Network members need to hold each other accountable for work done and regularly track the progress made towards specific goals (D'Souza, 2010:198). Regular feedback sessions and follow-up meetings should also be held with network members.

As was said before, the above guidelines are wide-ranging and only serve as a directive for managing a network. Although these guidelines can be useful, each network structure will differ and will need a different management approach that will have to be dealt with by the network participants.

The evaluation and promotion of a network also forms part of network management. This will be discussed as part of the last component of the network process. Thus, how a network can be managed to be sustainable will be discussed in the following section.

2.3.3 Sustaining a network

The final component in the process of networking is the sustainment of networks. Networks need to grow and develop and can't remain static. It needs to add value and create more opportunities for its members and other role players outside of the network (D'Souza, 2010:203). Sustainability of a network means the creation of conditions necessary to establish a lasting realisation of a network's aims and the use of its outcomes beyond the network's existence (Bienzle *et al.*, 2007:119). To be able to manage a network's activities for a short period is one thing but to make sure it remains relevant over a longer period of time can present a challenge. The skills and expertise attained by the network after a specific project need to be used for innovative practices in other areas or networks.

This section will firstly look into how networks can be evaluated on a regular basis to see if it is still relevant in its activities. Secondly, there will be a discussion on promoting a network so that it can be fully functional and stay connected with other networks and stakeholders. The last part of the section will explore the different strategies that can be used for sustainable networking.

2.3.3.1 Evaluating a network

For networks to deliver quality outputs and have positive outcomes its processes and progress need to be evaluated. Monitoring processes must be established to make sure that networks do what they are supposed to do – to collaboratively seek for solutions to associated problems. Hoppe and Reinelt (2010:605) state that the context in which networks operate and the purpose for its existence influence the focus of network evaluation.

According to Bienzle *et al.* (2007:96) the evaluation of a network can take different forms. Firstly, there can be normative evaluation where quality checks are done in reference to external criteria or commitments by the members of the network. The second form of evaluation is formative evaluation. This form of evaluation includes examining, learning, revising and improving of current activities and projects towards specific outcomes.

Evaluation of a network can be internal or external. Networks that were created by external forces or organisations will most probably have to adhere to external rules, regulations and monitoring processes. An example would be a network developed by the education department for newly qualified teachers. The members of the specific network (all the newly qualified teachers in a specific area) will probably be under constant supervision by a senior teacher or official who will regulate frequent meetings and activities. The teachers will then probably have to give evidence of work done after a certain period of induction. Internal evaluation is done by members of the network itself. In this type of network each member aims to contribute voluntarily towards the goals of the network. Evaluation can be done through regular feedback sessions or meetings of sub-committees of the network. The members of a network also need to consider self-evaluation processes for internal evaluation. This type of evaluation is self-initiated, internally organised and self-regulated. The aim of self-evaluation should always be to increase decision-making abilities, to improve the quality of work done and to realise the network's objectives (Bienzle *et al.*, 2007:97). Self-evaluation can commonly be seen as the conscience of a network. This type of evaluation will only occur if members take full responsibility and ownership of the network.

The process of evaluation is closely linked to the development of a network in its pursuit to be sustainable. Hoppe and Reinelt (2010:605) suggest the following common evaluation topics:

- Connectivity deals with the efficiency of sharing information, ideas and resources and if the network is expanding.
- Overall network health investigates the level of trust, diversity, relationships and balance of the network.
- Network outcomes and impact includes an evaluation of the network's ability to innovate and positively influence decision-making.

Evaluation should start from the beginning of a network and must be seen as a continuous process and not a once off occurrence that happens for example every year. It is not something that should only be considered in the latter stages of building or managing a

network but should be continuously done (Hadfield & Chapman, 2009:92). Bienzle *et al.* (2007:99) promote four potential subjects for evaluation in a network. These evaluation subjects must be seen as a process (Figure 2.4).

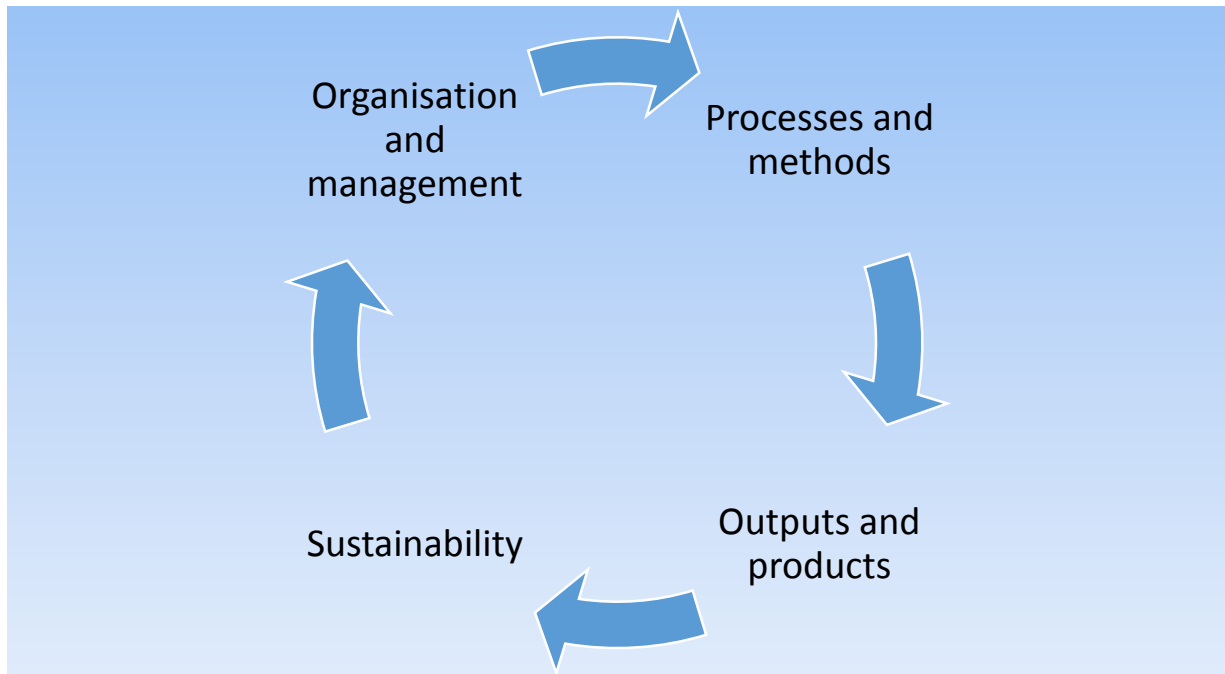


Figure 2.4: The evaluation process of a network (As adapted from Bienzle *et al.*, 2007:99)

The subjects for evaluation include the following aspects:

- **Organisation and management** deals with communication, partnerships, commitment, cooperation, etc.
- **Processes and methods** deals with the way in which the network wants to achieve its outcomes.
- **Outputs and products** cover the assessment of all the outputs, e.g. events, activities, forming of relationships, etc.
- **Sustainability** measures the impact, effects and outcomes towards its own goals as well as the influence of others.

By using a model, as presented by Bienzle above, networks can ensure that the administration, organisation and processes it uses is in order, so that the network does what it is suppose to do. However, these subjects of evaluation are broad principles and each individual network will have to develop specific evaluation topics within these subjects for it to be relevant towards the sustainability of the individual network.

As was mentioned earlier, each network will be evaluated differently. However, there are some common features of networks that can be evaluated. The following universal indicators can be used to evaluate a network for effectiveness and sustainability (Bienzle *et al.*, 2007:106):

- Variety of contacts
- Level of contacts and relationships
- Quality of contacts and relationships
- Frequency of meetings
- Relevance of content transferred and shared
- Variety of content transferred
- Reciprocity of contacts and needs
- Awareness of weak and strong links.

These universal indicators is a good source of knowledge for the general evaluation of a network. In an education sense, and for this study specifically, detailed context indicators was to be developed (chap. 6).

What is important when evaluating a network is that network-specific elements need to be evaluated. Each network will have to evaluate its own processes using the known indicators of evaluation processes. After taking into account the evaluation process and universal indicators for networks, as was discussed from the literature, the following context-specific indicators will be looked into for the purpose of this research study: organisation of the network, diversity of network contacts, management of member's differences, quality and frequency of meetings, reciprocity between members, relevance towards professional development, and sustainability over time. These indicators were addressed with the questionnaire and were used while drawing up a framework for the topic on professional development of school principals through networks (chap. 6).

Lastly, when evaluating a network, members also have to take into account the social processes involved in a network. According to D'Souza (2010:224), social capital is the concept that value can be created from the structure, quality, size and diversity of networks (par. 3.6). Social capital is an aspect that is sometimes overlooked when evaluating a network. Members develop individually and make connections which help them to grow personally and professionally. The importance of the evaluation of the network's ability to support the development of each individual is imperative for the sustainability of a network.

After discussing the evaluation of networks as part of management and sustaining of networks one also need to look into the promotion of networks for it to be able to grow into sustainable organisational systems. Subsequently, how to promote a network will be discussed in the following section.

2.3.3.2 Promoting a network

A network, like any other organisational structure, need to stay abreast of concerning issues and make sure that its functioning is relevant in society. All outcomes and products of networks need to be promoted and be used in a broader context (Bienzle *et al.*, 2007:111). For the purpose of this study, the outcomes of a network's activities should not only be used towards its own members' benefit, but also to the development of other individuals (principals) and educational institutions (schools). It is therefore necessary that a network's efforts need to be promoted internally and externally.

As was discussed in earlier sections of this chapter (par. 2.2.3.1 & 2.2.3.2) networks are contextually situated and can develop internally or externally. When looking into the topic of promoting a network it can also be promoted internally or externally (Hadfield & Chapman, 2009:117; Bienzle *et al.*, 2007:112). Internally a network can be enhanced by its members by connecting with and influencing individuals within the network. Bienzle *et al.* (2007:85) state that members of a network need to make people understand what networking is by demonstrating the potential benefits of the network and dedicating enough effort and time to networking. Members with knowledge on specific topics can share their expertise and demonstrate the benefits of using a specific initiative to other members of the network. This will not only help all network members to develop individually, but will also enhance the internal capacity of the network. The collaborative capacity in networks can also be used towards leadership activities and development (Hadfield & Chapman, 2009:104). Furthermore, networks need to be promoted by the establishing of partnerships with relevant stakeholders that are characterised by trust, transparency and ownership. Networks also need to be advanced by evaluating the internal capacities and challenges, and overcoming it with external associates and actions. In order to learn from each other, members and partners of networks need to understand the working culture of a network and its connected actions. When promoting a network internally members get the opportunity to gain new knowledge and ideas, and develop personally and socially in a certain field of expertise.

Externally, a network needs to be promoted to other individuals, stakeholders and network groups. Bienzle *et al.* (2007:113) use the term *dissemination* and explains that it is the process

of spreading information and promoting the network and its outcomes to a wider audience. There should be a coherent plan as to who will be the specific target group to which information, products and benefits will be distributed. Specific goals that are achievable as well as reasons for dissemination need to be developed by the network. What is very important when promoting a network externally is that other networks or individuals have to be able to relate to the network's activities. This will only be possible if the right group was targeted and the correct information and material was provided. Only when other networks see the success and achievement of an existing network they will consciously use the same ideas, activities and expertise (Leimbach, 2013:2). Promoting a network externally will have the added benefit of a broader influence due to the extensive exposure beyond the network. Individual network members can also use their influence and known contacts for developing new external partnerships towards the growth and promotion of the network. Developing external business partnerships can lead to financial gain for the network's activities (par. 2.2.1 & 2.3.1.3). The funds that are gained through partnerships can be used to fund some of the developmental activities and projects of the network (Bienzle *et al.*, 2007:122). This will ultimately contribute to the expansion of the network and its ability to do what it is suppose to do. In the context of this study, to professionally develop principals so that they can be better leaders and managers in schools (chap.1).

Communication is a key component for effective networking (par. 2.2.4 & 2.3.2.3). It is also important for promoting a network, internally and externally. In order to promote a network all different and appropriate means of communication should be used. Types of communication that can be used to promote a network include interviews, discussions, websites, newsletters, e-mails, articles, presentations, training seminars, conferences, campaigns, exhibitions, etc. (Bienzle *et al.*, 2007:116). Internet and social media can also be used to develop connections and to promote a network (par. 2.2.4.1 & 2.3.2). Promoting a network should be done throughout its existence for the purpose of its own development and that of other stakeholders. According to Bienzle *et al.* (2007:116) a good network is present at the right place and the right time. By promoting a network, members will gain new knowledge and ideas and also feel that they achieve something because of the fact that other networks or individuals were positively influenced by the networks activities. This will help networks to seek continuously for new ideas and ways to not only look at their own development, but also to help others to grow professionally.

According to Bienzle *et al.* (2007:111), a network should last as long as it is needed. Developing an approach to make a network continuous is very important. Thus, strategies for sustainable networking will be the focus of the last part of the section.

2.3.3.3 Strategies for sustainable networking

Networks aim to bring together expertise and skills and share knowledge, innovations and achievements with others. Therefore, a network should focus on the sustainability of collaborative activities and outcomes in order to create conditions that have a lasting impact for others to use (Bienzle *et al.*, 2007:119). Collaborative learning and team skills are the key to successful and sustainable organisational development (Muijs *et al.*, 2011:2). Each network will have its own challenges and goals and will be managed differently. The following are general strategies that can be used for sustainable networking:

- Appoint a voluntary leader. Leadership roles can be alternated to ensure accountability and ownership (D'Souza, 2010:211).
- Build stable relationships, internally and externally, whilst taking into account different styles and personalities (Leimbach, 2013:2; D'Souza, 2010:211; Bienzle *et al.*, 2007:120; Penuel & Riel, 2007:612; Henderson, 2005:5; Riggins Newby & Hayden, 2004:8) (par. 2.2.3.1; 2.2.3.2 & 2.3.2.2).
- Create good and appropriate connections and communication channels (Henderson, 2005:4) (par. 2.2.4.1 & 2.3.2.3)
- Systematically plan the network's strategies, activities and aims (Leimbach, 2013:2) (par. 2.2.2).
- Provide honest feedback to other members of the network about progress and related challenges (Riggins Newby, 2004:8) (par. 2.3.3.1).
- Attempt to obtain some kind of funding for projects or activities (Bienzle *et al.*, 2007:122) (par. 2.3.3.2).
- Organise inter-network visits and acquire external assistance where best practices can be observed and strategic alliances can be formed (D'Souza, 2010:211; Penuel & Riel, 2007:612; Henderson, 2005:6-7; Riggins Newby, 2004:8) (par. 2.3.3.2).
- Engage in action research to test practices (Riggins Newby, 2004:8) (par. 2.3.3.1).
- Ensure inclusivity of all members by engaging others effectively (Leimbach, 2013:2; D'Souza, 2010:211; Henderson, 2005:5) (par. 2.3.3.2).
- Assess regularly if the network is still relevant in its activities and on course towards achieving its outcomes (Leimbach, 2013:2; D'Souza, 2010:211; Bienzle *et al.*, 2007:120; Riggins Newby & Hayden, 2004:8;) (par. 2.3.3).
- Promote the network by marketing achievements and successes (Leimbach, 2013:2; Bienzle *et al.*, 2007:113) (par. 2.3.3.2).
- Deliver value by exchanging learnt knowledge, information and expertise (Leimbach, 2013:2; Riggins Newby & Hayden, 2004:8) (par. 2.2.4 & 2.3.3.2).

The above strategies can be used throughout the network process. The establishment and continuous managing and sustaining of the network has to be done strategically for it to function successfully. All strategies, as presented above, won't be necessary and suitable for all networks. Each network will have to create its own strategic plan for its sustainability. The strategies above were taken into account for the purpose of this study while finalising the framework for a network that can be used for the development of school principals in diverse contexts (chap. 6).

In the previous discussions universal aspects of networks were discussed with some reference towards education. There was also a look into the network process and its functioning. The purpose of this study is the relevance of networks in education. Therefore, in the following section the focus will be on networks specifically relating to education.

2.3.4 Synthesis

In the previous section, the network process was explained. From the preceding argumentation it came to the fore that networking is a deliberate process that needs to be engaged in for it to function properly and have the desired outcomes. It was also explained that networking functions on three levels, namely establishing, managing and sustaining the network. Each of the levels has its own developments, benefits and challenges that need to be kept in mind. In table 2.3 below a fundamental framework for networks is provided. This framework was developed taking into account the broader literature on the establishment, management and sustainment of networks as was explained in section 2.3. Figure 2.5 below demonstrates a schematic representation of a network framework. In the figure the network process is symbolised as it was explained in table 2.3. It is important to note that the last component of the network, i.e. sustainment, should be seen as something that has to be done continuously to ensure network effectiveness. If engaged in effectively it could lead to personal, professional and school development. This framework below will also be exploited when establishing a framework for networks towards the professional development of school principals in diverse contexts (chap. 6).

Table 2.3 A fundamental framework for networks

Component	Purpose	Key objectives	Functioning / implementation	Activities/actions	Challenges	Resources
Establishing a network	The main purpose for establishing the network, e.g. to professionally develop school principals.	The specific aims and objectives that will be the focus of the network, e.g. which specific issues to address.	The network type, who will be part of the network and how it will be functioning, i.e. the degree of formality, leadership, roles, stakeholders, etc.	The actions needed for establishing a network, e.g. who in the network will be responsible for what?	The challenges that can be expected in establishing the network, e.g. time constraints, distance between members, etc.	Resources that will be needed in the network. Also an assessment of resources that are available between the members.
Managing a network	The purpose for managing a network, e.g. to assure active collaboration, reciprocity and development within the network.	The aims of managing the network. The management system of the network and the strategic intent.	The general functioning of the network and how network activities will be implemented. Also the detailed structures in the network.	Activities that will be engaged in and undertaken within the network, e.g. meetings, workshops, promoting the network, etc.	The general challenges for managing the people, processes and aims of the network, e.g. diversity issues.	The functional use of resources in managing the network.
Sustaining a network	The purpose for the sustainment of a network, e.g. to insure continuing relations and development.	The aims of the evaluation processes of the network, i.e. internal/external, e.g. functioning, sustainable, reaching the objectives, etc.	The implementation of evaluation processes in sustaining the network, e.g. formal regulation processes.	Actions to be undertaken for network sustainment, e.g. self and team reflection.	The general challenges that hinder the sustainment of the network.	Evaluation of the use of resources for network sustainment and which resources will be needed for future use.

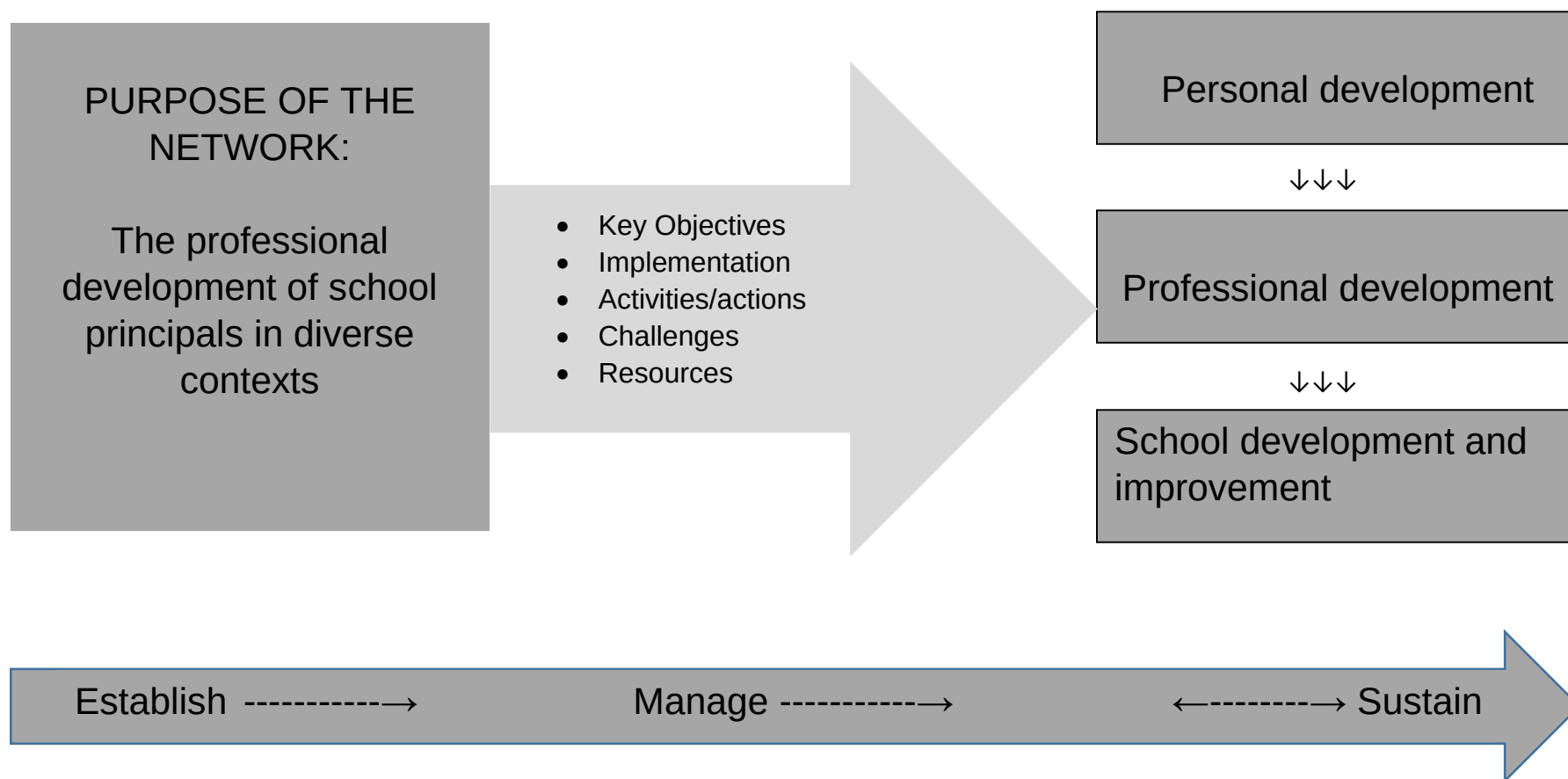


Figure 2.5 A schematic representation of a network framework

2.4 NETWORKS IN EDUCATION

Networking and collaboration has become increasingly important for organisations in the private and public sectors. This has arisen from the apparent advantages that collaboration between organisations can achieve (par. 2.3.1.1). Schools are organisations, thus one can make the assumption that they will also benefit from the advantages of networks. Moore and Rutherford (2011:70) defines a school network as: *“A group of schools coming together for a common purpose that is beneficial to each individual school, while adding value to the network as a whole”*. Moore and Rutherford (2011:70) further state that networks are a means of communicating knowledge and ideas as well as promoting innovation among schools. O’Brien *et al.* (2006:404) state that the primary purpose of educational networks falls into two broad categories. Firstly, it has the purpose of improving the daily activities of teachers and pupils. Secondly, educational networks serve a structural purpose for system change. The researcher agrees with the above view of O’Brien. The many advantages suggests that the collaborative efforts that networks hold can be used for school improvement. If a network can also positively contribute towards other individuals and schools it can lead to a general improvement of education. This is important for the South African Education system that is seen as quite diverse and differential in the quality that it provides. The level of education in most previously disadvantaged areas are significantly lower than in historically privileged regions. This can also be the case between urban and rural schools (Colditz, 2015; Spaull, 2014; Smith, 2012:39, 90, 111). The above links with the rationale of this research study – to develop principals professionally, who in turn can improve individual schools through better leadership and management, which will ultimately lead to an improved school system (chap. 1).

As discussed earlier, it is of utmost importance for principals as school managers to build partnerships with peers and people from related institutions to manage networks on different levels of their school communities. Efficient leadership from an educational perspective is an important component for functional and successful schools. The following quote summarises the influence that a school principal has as well as the changing profession of school leaders:

“The image of the isolated principal, working alone in an empty school building after formal classes end, is a relic of the past in many communities. In its place a new picture is emerging – one in which schools stay open evenings and weekends and students and community members learn in new ways during more hours of the day. Led by principals who work across traditional boundaries and develop new kinds of relationships that help them do their jobs more

effectively, these efforts benefits students and, in turn, their families and communities (Anon, 2013:1)."

The above definition brings about a different perspective on the traditional role of a school principal. This illustrates that principals need to be continuously developed and trained to be able to deal with 21st century challenges. Leadership with specific relation to networks will be looked into in chapter 3 of this study.

In an earlier section the general types of networks were discussed (2.2.3.2). Some of these types of networks relates to education but with some limitations. In the following section, the types of networks, specifically related to schools, will be explored. Furthermore, there will be a discussion on the specific advantages that networks can have for a school. The section will be concluded with a look into the possible challenges that may occur in educational networks.

2.4.1 Types of networks in education

Networks in education all have different starting points and depend on the reason for existence. Tafel-Viia *et al.* (2012:178) claim that educational networks are often formally and externally established. They are encouraged by government initiatives or external agencies in order to improve the education system on a macro level (Hadfield & Chapman, 2009:45). Although this view of the author is true, it shouldn't be the only type of network that is used in education. Individuals should also adopt initiatives geared towards a specific idea on school level. According to Modisane (2014:6), education is a societal matter and networks should aim to actively mobilise a wide range of stakeholders to improve education. There are many opportunities for informally structured networks in education that can benefit individuals and schools with common interests, aspirations, ideas, experiences and problems. This notion is supported by the literature (Cassar, 2013:4; Neale & Cone, 2013:3-5; Van Jaarsveld, 2013:198; Kiggundu & Moorosi, 2012:230; Hoppe & Reinelt, 2010:616-618; Hadfield & Chapman, 2009:45; Leithwood *et al.*, 2004:68). The literature also supports the rationale for the study, which is to develop a framework for a network to use as a structure for the professional development of school principals within diverse contexts in South Africa (Kiggundu & Moorosi, 2012; Mathibe, 2007; Mestry & Singh, 2007; Van der Westhuizen & Van Vuuren, 2007; Botha, 2004) (chap. 1). Professional development of school principals will be discussed in-depth in chapter 3 of this study (par. 3.5).

Networks in schools can operate on different levels and between various different organisations. Jallade (2011:7) is of opinion that education cooperation is a generic concept that covers different objectives and approaches. It is also characterised by varying degrees

of involvement, commitment and resources. The following types of networks in education can be established.

2.4.1.1 Networks in schools

Networks, specifically relating to schools, can also vary in levels. Hadfield and Chapman's (2009:58) viewpoint support the notion of different levels of networks and value it to be a generative structure for collaboration between schools that develops over time as networks grow and mature. The levels that the authors advance are:

- One school to one school
- One school to many schools
- Many schools to one school
- Many schools to many schools

This perspective of the authors agrees with the idea of internal and external networks and that both forms can be used to good effect of individuals and schools (par. 2.2.3.1; 2.2.3.2 & 2.3.3.2). It also illustrate that networks can differ in size depending on the aim and function of the network. Furthermore, the above agrees with the view of Jackson (2006:284-288) that there are different levels of learning networks, as was earlier discussed (par. 2.2.3.1).

Rose (2012:84) is of the opinion that these networks can range from a formal federation between schools with a joint governing body, through to informal, occasional and localised cooperative activities. The activities of these networks may include the use of facilities and resources, joint lesson planning sessions, combined fund-raising activities, sharing new knowledge and innovative ideas and collaborative dialogue towards school improvement. The researcher agrees with the observations of the author, that formally structured networks can hold many advantages for those involved. On the other hand, the researcher is also of opinion that informal networks can also have many advantages and in turn lead to more formally structured networks with specific aims. The literature supports this opinion (Muijs *et al.*, 2011; Kubiak, 2009; Bienzle *et al.*, 2007). For the purpose of this study, formal networks will be best suited because a structured development programme will yield the best results for principals. The advantages of informal networks should however not be ignored as it can also be very helpful in making proper relational network connections which is important for the working relationship in a network (par. 2.2.3.1). The idea that networks can also function internally was discussed earlier (par. 2.2.3.1 & 2.2.3.2). Internal collaborative networks can contribute significantly towards school improvement. These in-school networks involve building internal

relationships. Internal school networks aim to provide opportunities for all stakeholders of the school to collaborate towards the well-being of the children. These stakeholders can include teachers, support staff, learners, parents, etc. This type of network is very important because of its relevancy to the specific school's challenges. Internal collaboration is of utmost importance for the development of a school.

The different networks in schools can also vary. Teacher networks, which have the aim of providing support to teachers of a specific subject or learning matter can be created between different schools (par. 2.2.3.2). Teachers can share their experiences and skills to develop leadership and instructional expertise (Edge & Mylopoulos, 2008:147). Another type of network is leadership networks, e.g. principal or school management team (SMT) networks that aim to provide leadership development opportunities and examine possible solutions to school-based problems (Neale & Cone, 2013:4). An example of these networks can be found in the *Peer partnerships in Teaching (PPiT)* approach to professional development that was developed in Australia to support tertiary education staff in their teaching practice. It consisted of a five-stage model and had an impact on pedagogy and skills development. It also had the added advantage of collegial relationships between staff in different schools (Chester, 2012:94). Leadership networks is of importance for this research as this study involves principals as school leaders (par. 2.2.3.2). Leadership will be discussed in chapter 3 of the study (par. 3.2).

External networks are also important for schools as it can increase the schools capacity and lead to general school improvement. Subsequently, the following section will deal with networks between schools and other educational organisations.

2.4.1.2 Networks between schools and other educational organisations

This type of network collaborates with organisations with specific reference to education. These organisations can include Education Departments, Principal's councils, Higher Education Institutions, Governing Body Federations, Unions, Education agencies, etc. (Botha, 2004:242; Chadwick, 2004:80; Potgieter *et al.*, 1997:8; Lieberman, 1996:54).

Networks such as these are normally non-voluntary networks and are established by the external educational organisations. These networks' structures will be formalised by external organisations and be monitored regularly. An example would be a network of principals and the Education department in a specific district dealing with issues concerning all the schools. Kiggundu and Moorosi (2012:227) make the statement that generating and sustaining effective networks are likely to require the active involvement of other stakeholders such as

district officials and university staff. This statement of Kiggundu and Moorosi is only partially true. The external organisations may be involved at the commencement of the network, but as the network develops and its members get actively involved by taking ownership, less bureaucratic involvement will be needed.

Networks between schools and other educational organisations can also be purely voluntary. An example would be a school that are voluntarily part of a Governing Body federation, i.e. The Federation of South African School Governing Bodies (FEDSAS). Another example would be a partnership with a university with the specific aim for teacher training. Voluntary networks will generally have less bureaucratic activity, notwithstanding the fact that their most probably will be some kind of structure involved in the network for successful cooperation. Although networks with educational related organisations are important and can be seen as organisation specific, it is also necessary for schools to relate to organisations external to the education sector. Thus, the last type of networks in education, networks between schools and non-educational organisations will be the focus of the following discussion.

2.4.1.3 Networks between schools and non-educational organisations

This type of network includes partnerships between schools and other role players. These stakeholders include community partners, e.g. churches, social work, emergency services, sponsors, businesses, sports clubs, etc. (Van der Berg, 2013:12-13; Smith, 2012:128; Haydon, 2007:37; Price, 2007:18; Carrington & Robinson, 2006:326-327; Sigford, 2006:70; Lunenberg & Irby, 2006:328; Reese, 2004:18; Riggins Newby & Hayden, 2004:2; Van Deventer, 2003(b):260; Cairney & Ruge, 1999:3).

Schools' networks with organisations outside of education should aim to give practical support on transforming education by building schools in partnership with the wider community. The literature includes a few examples of such partnerships or networks that already exist and are making a difference in education. The study of Woods *et al.* (2013:763) was already discussed earlier whereby business management were brought to schools to provide support towards non-educational aspects of schooling (par. 2.3.3). Another example of such a partnership can be found in the United Kingdom where special schools work in partnership with other organisations to support the learners with special needs (Rose, 2012:84). Verger (2012:109) did a case study on the *Public-private partnership for education (ePPP)* initiative whereby international organisations deal with educational affairs, especially in low-income contexts. Verger (2012:125) came to the conclusion that this type of partnership between private and educational organisations can be cost-effective and a fast solution to bring education to all in developing contexts.

In South Africa the *Partners for Possibility* initiative was started in 2011 whereby business men and school principals link up to gain valuable input from business organisations in order to overcome educational challenges (Williams, 2014:5). This initiative was introduced in 155 schools in the Western Cape, Kwazulu-Natal, Free State and Gauteng provinces of South Africa, with the main objective to improve leadership skills in schools in order to overcome challenges in education. It was started because of a lack of leadership and professional development opportunities for school principals and has yielded some success already. The author states that after getting involved with the programme, most principals that felt depressed were inspired and had a new energy towards their work which in turn rolled over to teachers, parents and the community. In one school the promotion results of learners improved significantly because of this new-found dynamism. This agrees with the advantages of networks as was discussed earlier (par. 2.3.1.1). It also had the added advantage that the private sector became involved in developing the infrastructure at some of the schools. The above example of a working partnership links closely with the rationale for the study and supports the view that networks can enhance leadership development in schools and contribute towards school improvement. It serves as an example of a partnership that can work towards the benefit of schools and can help with the general improvement of various aspects of schools (par. 1.3.1; 2.2.1; 2.3.1.3; 3.4 & 3.5).

Furthermore, authors like Cassar (2013:5), Humada-Ludeke (2013:8), Jackson (2006:274), Jervis-Tracey (2005:291) and Mathibe (2005:532) promote the creation of *Networked Learning Communities (NLC's)*, which works on the basis of collaborative enquiry for school improvement, which can stimulate innovation and facilitate knowledge transfer. *Networked Learning Communities* agree with the idea of creating partnerships and networks to improve education (par. 2.1 & 3.1.3).

As was mentioned earlier partnerships with stakeholders in education correlate with the South African government's *Quality of Learning and Teaching Campaign (QLTC)* (par. 1.3 & 2.4.2.2). In the next discussion, there will be a look into the legislation, policies and programmes, like the mentioned QLTC, that are of relevance to the focus areas of this research study.

2.4.2 Legislation, policies and programmes relating to the South African Education system

Since 1994, a number of policies, relating to networks, partnerships and professional development, have been implemented and legislation promulgated to create a framework for

transformation across the Education system. The main aim of the government with the implementation of these acts, policies and programmes is to enhance the education system as a whole. The relevant legislation with a focus on this research will be discussed next.

2.4.2.1 Legislation relating to the South African Education system

Three specific acts that are of relevance to the development of the education system and makes reference to the focus of this study, i.e. networks, partnerships and professional development are The South African Schools Act (Act 84/1996), The South African Council for Educators Act (Act 31/2000) and the Employment of Educators Act (Act 76/1998). A concise discussion of the relevance of each of the three acts will follow:

- **The South African Schools Act (Act 84 of 1996)**

The South African Schools Act (Act 84 of 1996) makes specific reference to the creation of partnerships between schools and communities to improve education. The main purpose of the South African Schools Act is to guide school education in South Africa. Potgieter *et al.* (1997:6) is of opinion that a basic aim of the act is to improve the quality of education of all learners in the country. Schools in South Africa are not seen as “state” schools but public schools which belong to and is managed by the community (School Governing Body) in conjunction with Education Departments (South Africa, 2013:170).

- **The South African Council for Educators Act (Act 31 of 2000)**

In terms of the South African Council for Educators Act (Act 31 of 2000) the South African Council for Educators (SACE) was established. SACE is a professional council aimed at enhancing the teaching profession and promoting the development of educators and their professional conduct (South Africa, 2013:175; South African Council for Educators Act, Act 31 of 2000). SACE has introduced professional development activities recently but with limited success thus far. An in-depth discussion of the role of SACE in the professional development of principals will be done in chapter 3 of this research study (par. 3.5).

- **The Employment of Educators Act (Act 76 of 1998)**

In terms of schedule I of the Employment of Educators Act (76 of 1998) the Minister is required to determine performance standards for educators. This was done through the implementation of Resolution 8 of 2003 after the collective agreement by the Education Labour Relations Council (ELRC), whereby an Integrated Quality

Management System (IQMS) by which all South African teachers' performance are evaluated was introduced (Department of Education, 2003:2). The IQMS is an integrated quality management system that consists of three programmes, which are aimed at enhancing and monitoring performance of the education system. The main purpose of then IQMS is to identify specific needs of educators, schools and district offices for support and development; to provide support for continued growth; to promote accountability; to monitor an institution's overall effectiveness; and to evaluate an educator's performance (Department of Education, 2003:2). Although the IQMS has development and continued growth as its purposes, it fails to some extent at this moment because of a lack of regulation and management. Because of this, teachers and principals don't take it serious enough for it to be of great value towards professional development.

Thus, in South Africa, partnerships between schools and communities are compelled and supported by law (The South African Council for Educators Act, Act 31 of 2000; Department of Education, 1997:6; Potgieter *et al.*, 1997:8; South African Schools Act, Act 84 of 1996). There are also some legislation that subscribes professional development opportunities for teachers and school principals but its implementation and contribution towards the professional development of principals is relatively limited (par. 3.5). The above facts links with the rationale of the study and explains the need for a study of this nature (chap. 1).

There are also other programmes and campaigns that were implemented by the South African government to improve education. One such a campaign with important reference to this study is the Quality of Learning and Teaching Campaign (QLTC), which will subsequently be discussed.

2.4.2.2 Quality of Learning and Teaching Campaign (QLTC)

The Quality of Learning and Teaching Campaign (QLTC) was launched in 2008 in growing realisation that government alone cannot address all the challenges of the educational system. The campaign's main objective is to improve the education system by establishing partnerships to achieve this objective (Department of Basic Education (DBE), 2012:5). The QLTC aims that all education role players, stakeholders and social partners commit to work together to achieve quality teaching and learning in South Africa. These partners include the Education departments, Governing Bodies, school principals, teachers, parents, learners and the community who has to make a commitment and subscribe to a Code for Quality Education (DBE, 2012:6-8; Smith, 2012:47). The QLTC is about creating partnerships to improve education at specific schools with the ultimate objective to improve the education system as a

whole. The setting up of partnerships are seen as an important aspect for effective networking (par. 2.2.1; 2.3.1.3). The school principal plays a major role in the functioning of the QLTC. The first three aspects that the principal has to agree on when taking the pledge and committing towards the QLTC is very relevant for this study. The principal has to promise to (DBE, 2012:7):

- Promote the development of loyalty and respect for the profession by fulfilling his/her management and leadership roles to the best of his/her ability.
- Be well prepared for and enthusiastic about his/her role as the professional leader.
- Strive to be a lifelong learner.

These aspects agree with the rationale for the study. School principals need to be continuously developed professionally in order for them to be able to lead schools successfully and to improve all aspects of education in their schools. The opportunities for principals in South Africa are very limited at the moment. Therefore the need for a study to look into the usability of networks to achieve the professional development of school principals (par. 1.1). The second and third aspect above is also of relevance as a principal needs to have the motivation for development. The already mentioned *Partners for Possibility* initiative can be of great value in achieving this (par. 2.4.1.3).

Taking into account the discussions above, principals, as educational leaders, need to take responsibility to develop lasting partnerships with stakeholders (Smith, 2012:52). This will bring about many advantages and ultimately improve individual schools and the education system as a whole. What Lewis (2013:180) observes is noticeable, especially in South Africa – a country with an unequal education system to a large extent. The author remarks that if our goal is to provide equal access and equal opportunities to the children in schools, we must continue to create partnerships with all stakeholders (2.4.2.1). The challenge is to create sustainable relationships that maximise the benefits of the network for all its members. The above concurs with the rationale for the study. To create lasting networks that may benefit school principals professionally and ultimately improve schooling through better leadership and management. Leadership will be discussed in chapter 3.

From a discussion on the advantages of network participation, it was evident that network participation holds many benefits for its members (par. 2.3.1.1). In the next section there will be a look into the advantages that networks holds in store for education specifically.

2.4.3 Advantages of networks in education

The advantages of networks in education are endless and correspond with the advantages of networks in general, as was discussed in an earlier section (par. 2.3.1.1). The following discussion will look into the benefits of networks, specifically related to education because developing school principals is the focus of the study and some advantages may not be relevant towards education.

According to Evans and Stone-Johnson (2010:203), properly structured networks can have a positive impact on many aspects of education and can be used to overcome problems such as insufficient internal and external support and lack of teacher engagement. There are also many other benefits of networks. After taking into account the many advantages as was suggested by the literature, some education specific advantages were put together (D'Souza, 2013; Farley-Ripple & Buttram, 2013; Predić & Stošić, 2013; Kiggundu & Moorosi, 2012; Muijs *et al.*, 2011:2; Rajagopal *et al.*, 2012; Cross & Thomas, 2011; Moore & Rutherford, 2011; The Schools Network, 2011; Angelides, 2010; Evans & Stone-Johnson, 2010; Jolink & Dankbaar, 2010; Muijs *et al.*, 2010; Kubiak, 2009; Bienzle *et al.*, 2007; Eick *et al.*, 2007; Mathibe, 2007; Jackson, 2006; Jopling & Spender 2006; Jervis-Tracey, 2005; Lieberman, 1996). The following advantages, specifically relating to education, are suggested by the researcher:

- Deeper organisational learning, both collectively and individually.
- Improved leadership skills and abilities of principals.
- Improved learning material due to the sharing of knowledge and expertise.
- Improved assessment practices.
- Improved instructional expertise.
- Access to better resources and facilities, e.g. sports facilities, computer classes, libraries, etc.
- Contribution to the total development of the child.
- Improved learner results and academic standards.
- Networks draw schools into a range of community relationships.
- Added responsibility and ownership are taken by stakeholders.
- Shared problem-solving strategies.
- Financial benefits for schools.
- Overall school improvement.

These context specific advantages concurs with the universal benefits as was derived from the literature. When taking into account all the above benefits networks can have, it is clear

that networks can be used to the benefit of individuals and schools. Thus, school principals can be developed professionally through participation in networks and in turn they can improve their schools through enhanced management and leadership abilities (par. 2.4.1.1 & 2.4.2.2). This agrees with the rationale and illustrates the need for the study (chap. 1).

The above discussion illustrates that there are numerous individual and collective benefits when being part of an educational network. However, there can also be some challenges of networks in education, which will be the focus of the next discussion.

2.4.4 Challenges of networks in education

The presentation of networks for education is not all one-sided. At face value, it may seem that all is positive regarding the use of networks in education. O'Brien *et al.* (2006:408) draw the attention to the fact that there is not enough critique against the use of networks in education. The authors state that there is: “*a largely uncritical nature of much of the existing literature on education networks*”. Evans and Stone-Johnson (2010:206) state that networks have the potential to positively impact schools, but the design and operation of the network structure is essential for success and sustainability. Although most literature stresses the importance and significance of networks the following difficulties and challenges may result from the collaboration in education:

- Power struggles, where one member's views can be forced onto the others.
- Loss of autonomy by teachers (Moore & Rutherford, 2011:75).
- Unnecessary bureaucracy (Moore & Rutherford, 2011:75).
- Networks can become a vehicle for government-driven reform (O'Brien *et al.*, 2006:409).
- Teachers are seen as conduits of implementation of policy and not as professionals with a responsibility, especially in non-voluntary networks (O'Brien *et al.*, 2006:406).
- Stringent performance monitoring in formal networks that can hinder development (O'Brien *et al.*, 2006:408).
- Innovative ideas of the lesser party can be ignored.
- Difficulties of establishing trust between schools in a network (O'Brien *et al.*, 2006:408).
- Overcoming structural problems (O'Brien *et al.*, 2006:408).
- Different ideas and objectives towards networking (Kiggundu & Moorosi, 2012:221).
- Lack of purpose, ownership and accountability by all the parties of the network (Kiggundu & Moorosi, 2012:221; Evans & Stone-Johnson, 2010:211).

- Lack of communication and technology for network interaction (Kiggundu & Moorosi, 2012:221).
- Lack of willingness to engage in diversity management.
- Participation in a network can be seen as ego building for some members of the network (Muijs *et al.*, 2011:5).
- Competition between schools for pupils make them reluctant to work together (Evans & Stone-Johnson, 2010:210).
- Time constraints (Evans & Stone-Johnson, 2010:215).
- Teacher absence (Evans & Stone-Johnson, 2010:215).

The difficulties, as presented above, illustrates that networks should be strategically structured for it to be continuously successful (par. 2.3.3.3). When establishing and managing a network, the above challenges need to be taken into account for it to be able to constantly do what it is supposed to do – for the purpose of this study, to continuously contribute to the professional development of school principals. It is also clear that the network participant should have the appropriate attitude towards networking for professional development purposes. Hence, the importance of creating good partnerships and relations between all network members (par. 2.3.3.1; 2.4.2.1 & 2.4.2.2). If the challenges of network participation are not properly dealt with, the network will not be sustainable and will result in a mere get together of individuals who have similar interests with little personal and professional development purpose on the long run.

The objectives of networking is essentially to improve teaching and learning as part of the mission towards an improved education system. Networks shouldn't be seen as the be all and end all of individual and collective educational development. It is a structural form that can assist with the professional development of teachers and principals in the education system. In the light of this argument, the subject of the use of networks for the professional development of school principals need to be investigated. The focus of the discussion in the following chapter will be enhancing leadership through networks for the professional development of principals.

2.5 SUMMARY

The discussion started with a look into the theory of networks, which included a broad discussion of the definition and characteristics of networks. It was presented that networks are systems of interconnected people and things and that networking implies the activities and

the functioning of a network. Networks are characterised by some aspects that are general only to networks. These aspects include relational, functional and structural characteristics.

The following part of the chapter dealt with the structure of networks. This discussion included the different forms, types and functions of networks. It also dealt with the complexity that comes with the use of networks. Networks can exist as complex structures, whilst sometimes it can also be more loosely structured. It depends largely on its reason for existence, goals and the members of the network.

The network process was looked into next. How to establish a successful network with its related challenges and benefits was discussed. It came to the clear that there are more benefits than challenges, but that the challenges also have to be addressed to effectively create a network. The section was concluded with some guidelines on how to establish a network. The management and control of a network is very important and also here the researcher has come to the conclusion that there can be challenges. The greatest challenge is probably to manage the diversity of the individuals that are part of the network. General guidelines were also presented on how to manage a network. There was also an in-depth discussion on the sustainability of networks over time. In this section the evaluation and promotion of a network was looked into. The section concluded with an analysis of the strategies that can be used to sustain a network over a longer period of time.

The last part of the chapter dealt with networks in an educational sense. The types of networks and relevant legislation were explored. The specific advantages and challenges relating to schools and principals were also discussed. Also here it can be said that the benefits associated with networks outweigh the challenges, but that one shouldn't ignore these difficulties. Furthermore, networks shouldn't be the only mechanism that are used for school improvement and professional development but should be part of the system for development.

The importance and benefits of networks are summed up by a statement of Riggins-Newby (2004:8) that will also conclude the chapter: *"If two minds are always better than one, then a network of minds is better still"*.

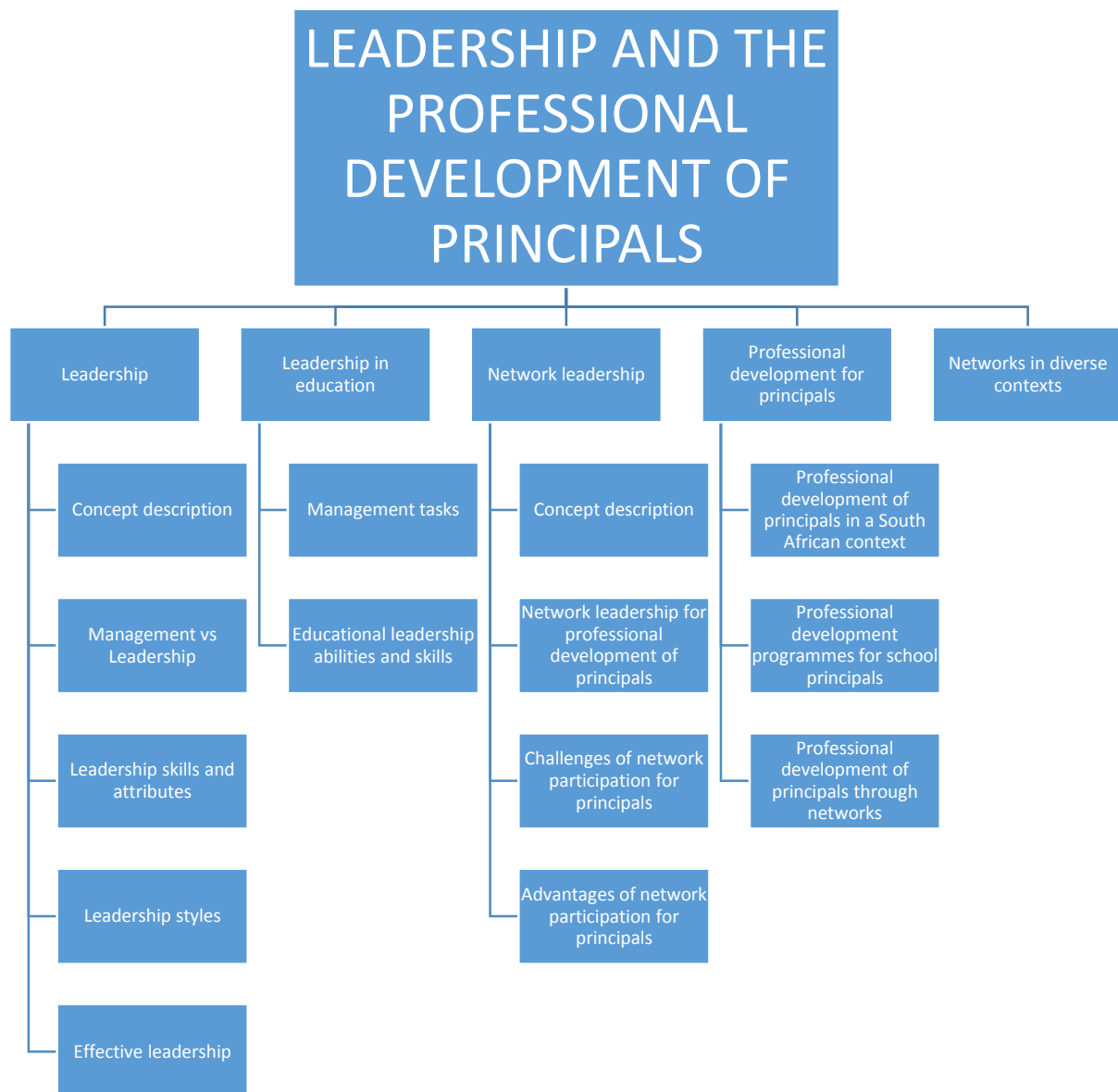
In terms of the research aims for this study it can be derived from the preceding literature chapter that the nature and significance of networks is of such benefit to its participants that it can be used for developmental purposes as long as it is systematically structured. This will result in long-lasting relationships and benefits for its participants. In the following chapter

other important aspects of the research aims will be looked into, i.e. an investigation of professional development opportunities and networking in relation to educational leadership.

The literature overview in this chapter on networks and its contribution towards professional development in relation to education established a theoretical background for the literature chapter to follow. In the following chapter, there will be an in-depth look into leadership and professional development opportunities through networks.

CHAPTER 3

LEADERSHIP AND THE PROFESSIONAL DEVELOPMENT OF PRINCIPALS



3.1 INTRODUCTION

Leadership in any organisation is of great importance as its success and development is in many instances dependent on it. The Corporative Executive Board Company (CEB) (2013:3) is of opinion that today's leaders are under intense pressure to deliver results and productivity. The complexity associated with leadership enquires an interpretation of what leaders need to do to be effective. According to Mills (2005:10), effective leadership enables organisations to create its vision and to fulfil its mission. On the other hand: the absence of leadership can be equally dramatic as it can cause organisations to stagnate or lose their way. Leadership stems from the complexity of human activity and the ability to lead people towards a common understanding and goal. Rungrojngarmcharoen (2013:133) supports this view and adds that leaders on all levels need to have the skills, abilities and knowledge to be able to lead any organisation successfully and mobilising the community.

According to Rowe (2007:1) and also Mills (2005:27), leadership is a trait or characteristic that not only some people are born with or that is only bestowed to some people, but is something that can be developed over time. Therefore, leadership has to be developed continuously by those people in leadership positions in order to lead other people in an organisation efficiently. Today's leaders are under pressure to perform. Some people may find being a leader undemanding and less complicated than others do. The fact of the matter is that all leaders are able to develop their leadership abilities and skills towards being a more effective leader.

Being involved in structured networks can be one of the ways in which leaders can be developed. According to research done by The CEB (2013:4) very few leaders have the competencies and drive necessary to be effective leaders in a more collaborative, networked environment. Developing leadership through networks is an approach that recently came to the fore. Although networks were always there, it wasn't seen by many as a means to develop leadership. Rungrojngarmcharoen (2013:134) is one of the authors that advance the idea that effective leadership is an ongoing process of learning, practising, sharing knowledge and communication of shared values among leaders and followers. Complex problems sometimes require more knowledge and expertise than do uncomplicated and elementary processes that can be dealt with by individuals. April and April (2007:214) also support the view that it is necessary that all stakeholders in an organisation participate, communicate, collaborate and learn from each other.

Educational leaders can also benefit from network leadership development strategies. Shared practises and cooperative ideas can be very useful towards a school leader's development and ultimately the growth of the organisation (school). This brings into account a different way

of thinking about leadership and leadership development. Muijs, Ainscow, Chapman and West (2011:162) are of the opinion that successful leadership in networks require additional leadership roles and skills, i.e. the building of group identity, trust and the fostering of mutual knowledge. By acquiring these attributes, leaders involve more staff and promote distributed leadership and leadership capacity in general.

The preceding arguments serve as background remarks towards the discussion that will follow in this chapter. The concept of leadership in general as well as educational leadership will be explored in this chapter. Network leadership and its significance towards professional development will also be dealt with. To conclude the chapter there will be a look into the professional development activities and opportunities for educational leaders and the possibility of establishing networks in diverse societies to facilitate professional development.

3.2 LEADERSHIP

In this section a general discussion on leadership is discussed. The discussion will include a concept description, an analysis of the difference between management and leadership, as well as a look into leadership skills and styles. The section will conclude with an investigation of effective leadership. The researcher doesn't claim to explore in-depth into the matter of leadership, but rather to provide an outline on this subject that will serve as a background to the discussion in the rest of the chapter.

3.2.1 Concept description

As was mentioned earlier, leadership is of utmost importance for the development of an organisation (par. 1). According to Blanchard (2010:1) strong leadership is the backbone of any organisation. The author also refers to the fact that leadership can be an elusive characteristic when dealt with in the wrong way and by people's wrong intentions. There are many different descriptions and definitions of leadership and leaders. The two interconnected concepts of leadership and leaders will consequently be explored.

When one reasons about leadership, the terms *authority* and *power* also present themselves. A leadership position brings a certain amount of authority, which gives the leader power to influence others to bring about desired outcomes (Gonos & Gallo, 2013:160; Rowe, 2007:3). Leaders use their leadership authority and power to ensure successful task execution (Prinsloo, 2003:140-141). *Leadership* is therefore described as the process by which one person influences the thoughts, attitudes and behaviours of others. Leadership is the ability to get other people to do something significant that they might not otherwise have the

knowledge or courage to do (Mills, 2005:11-12). Leadership is a dynamic process of influencing people, which in certain organisational conditions can have an effect on other members, with the aim of meeting the objective of the group (Gonos & Gallo, 2013:160).

Other authors, as will be presented below, explore the aspect of leadership more widely and integrated. The different definitions suggest several components central to the phenomenon of leadership. These authors also make several assumptions on leadership. Mills (2005:14) is of opinion that in taking a leadership position, a leader must be able to deal with the following issues:

- A leader must have a vision of what can be accomplished.
- A leader must make a commitment to the mission and to the people he/she lead.
- A leader has to take responsibility for the accomplishment of the mission and the welfare of those he/she lead.
- A leader has to assume risk of loss and failure.
- A leader must be able to accept recognition for success.

Mills (2005:15) further notes that one usually associate high levels of leadership with high levels of authority. The higher an individual's level in the organisation is, the more he/she is expected to exhibit leadership and leadership skills. This corresponds with the concept of distributed leadership, which see leadership as something that functions on different levels in an organisation. Distributed leadership will be discussed in more detail in the section on leadership styles in this chapter (par. 2.4).

Ancona (2005:1) views leadership as a capacity that both individuals and groups can possess. The author makes the following assumptions about leadership capacity:

- Leadership is distributed – it is not only the endeavours of the top structures, but can permeate at all levels of the organisation.
- Leadership is personal and developmental – there is no single way to lead. The best way to lead is to use one's own capabilities, while constantly working on improving and developing those skills.
- Leadership is a process to create change – leaders can create change by playing a central role or by establishing an environment in which others are empowered.
- Leadership develops over time – through practice, reflection, following role models, feedback, reflection and theory one can develop leadership.

Leaders need to be capacitated for their leadership task. Through professional leadership development, leaders will be able to become skilled at and gain knowledge of different leadership strategies, therefore becoming capacitated for the important work they have to do, i.e. leading dynamic organisations. The professional development of school principals also need to be organised through capacity building activities and opportunities. This element will be discussed in a later section of this chapter (par. 5).

Authors that studied leadership quite extensively are Winston and Patterson (2006:7). In their study of the definition of what leadership entails, the authors examined over 90 variables that may comprise the whole entity of leadership. They present an integrative definition of leadership after studying all the different variables of this aspect. Their definition of leadership is as follow:

“The leader is one or more people who selects, equips, trains and influences one or more followers who have diverse gifts, abilities and skills and focuses the followers to the organisation’s mission and objectives, causing the followers to willingly and enthusiastically expend spiritual, emotional, and physical energy in a concerted coordinated effort to achieve the organisational mission and objectives. The leader achieves this influence by humbly conveying a prophetic vision of the future in clear terms that resonates with the follower’s beliefs and values such that the followers can understand and interpret the future into present-time action steps.”

The above definition of Winston and Patterson (2006) is very broad and includes most aspects on leadership. It also illustrates the extensive detail and plethora of features that leaders need to take into account when engaging with their followers. Rowe (2007:1) agrees with most of the definitions above. He proposes the following components as part of a definition on leadership:

- Leadership is a process, therefore is available to everyone and not restricted to only one person in a group who has formal position power.
- Leadership involves influencing your subordinates, peers and superiors in an organisational context. The onus is on leaders to exercise their influence ethically.
- Leadership happens within the context of a group who are engaged in a common goal or purpose.

- Leadership involves goal attainment and directing a group of people towards accomplishment of a task or endpoint.
- The goals of an organisation are shared by leaders and followers towards achieving the organisation's objectives.

In the above arguments different perspectives and definitions of leadership were explored. Some literature also look into the actions of leaders as part of the discussion on leadership. According to Van Deventer (2003:69) a *leader* directs, motivates, inspires and corrects. Leaders have the ability to influence the behaviour of others without having to use their authority or hierarchical position (Prinsloo, 2003:140). Furthermore, a leader should have good interpersonal relations and provide a good balance between task and people. Leaders set a direction for the rest; they help to see what lies ahead; they help others to visualize what might be achieved; and they encourage and inspire others. Without leadership, a group of humans quickly degenerates into argument and conflict (Mills, 2005:11). Blanchard (2010:1) agrees with the views of the other authors by stating that leaders create the vision, support the strategies and are the catalyst for developing the individual bench strength to move the organisation forward (Blanchard, 2010:1).

After taking into account the views and perspectives of all the authors above, the researcher presents the following definition for leadership:

“Leadership is a process of influencing other people’s thoughts and way of behaviour in the appropriate way and over time, brought about by an individual or group’s desire to create change and achieve a common set of goals, whilst embracing the diversity of others. At the same time the leader’s views, values and capabilities are developed in his endeavour to achieve the organisation’s vision”.

The above definition, as presented by the researcher, will serve as a focal point for the further discussion on leadership in this chapter. The issue of diversity will be continuously referred to and incorporated as part of the discussions in this chapter and will be extensively explored towards the end of this chapter (par. 3.6). In this section, leaders and leadership have been defined and some aspects on leadership have been described. For the purpose of clarity, the different perspectives about management and leadership will be part of the next discussion.

3.2.2. Management vs Leadership

The two terms, *management* and *leadership*, are distinguishable, but are often used interchangeably (Gonos & Gallo, 2013:160; Van Deventer, 2003:68). According to Mills (2005:20) and also Van Deventer (2003:68) the main differences between leadership and management is that leadership relates to mission, direction and inspiration, whilst management involves designing and carrying out operational plans, getting things done and working effectively with people. Management and the ability to lead are often equated. The functions of management cannot be performed well if the manager does not have the ability to lead people and does not know which human factors affect the achievement of the organisation's goals (Gonos & Gallo, 2013:160). It is important for leaders to strike the right balance between leadership and management. This will ensure that the organisation's goals are reached.

The major tasks of leadership and management, as presented by Van Deventer (2003:71), can be seen in table 3.1 below. These tasks are interrelated and therefore one aspect should not be interpreted as being more important than the other.

Table 3.1: Management and Leadership tasks (Van Deventer, 2003:71)

Management tasks	Leadership tasks
Setting goals and objectives	Creating a vision of how things could and should be done
Developing clear work programmes	Turning visions into workable agendas or projects
Facilitating the execution of work programmes	Communicating agendas so as to generate excitement and commitment in others
Making and monitoring adjustments	Creating a climate of problem solving and learning around the agendas
Rewarding performance	Persisting until the agendas are accomplished

Prinsloo (2003:141) is of opinion that leadership is a more emotional process than management. Management, on the other hand, has the connotation of being more rational. Leadership is associated with words like risk-taking, dynamic, creativity, change and vision, whilst management is associated with words like efficiency, planning, paperwork, procedures, regulations, control and consistency. Managers have been characterised as people who do things right and leaders as people who do the right things (Prinsloo, 2003:141). Cooper and

Nirenberg (2004:852) summarise the difference between management and leadership as follows: *“Management is a bottom line focus: How can I best accomplish certain things? Leadership deals with the top line: What are the things I want to accomplish?”* Gerber, Nel and Van Dyk (1998:287) make the following distinctions between leaders and managers:

- Managers administer, leaders innovate.
- Managers maintain, leaders develop.
- Managers control, leaders inspire.
- Managers have a short-term view, leaders have a long term view.
- Managers ask how and when, leaders ask what and why.
- Managers imitate, leaders originate.
- Managers accept the status quo, leaders challenge it.

A careful balance between leadership and management has to be determined. This will ensure that organisations can thrive and increase their capacity. One way of doing this is for leaders to establish functioning management teams that can assist with the day-to-day running of the organisation. Leaders will give the direction forward, while management teams can execute the strategies.

Rowe (2007:4) agrees with the opinions above and observes that leadership is similar to, but also different from, management. Both involve influencing people, working with people and are concerned with the achievement of common goals. The main difference between these two aspects lies in the philosophical perspective of people. Managers believe that the decisions they make are determined for them by the industry or organisation they work in. Leaders believe that the choices they make will affect the organisations they are in and that their organisations will also have an effect on the industries or environments in which they operate (Rowe, 2007:4). It is very important to note that organisations need people who do the right things and do things right, thus managers and leaders (Rowe, 2007:5). Organisations with strong management and weak leadership will lack creativity and innovation and be very bureaucratic. On the contrary, an organisation with strong leadership and weak management can become involved in misdirected and meaningless change that has a negative effect on the organisation. At some time in the cycle of organisations, it might be necessary to concentrate more on management than leadership to ensure that all systems for goal and mission attainment are in place. It is then that firm leadership should be combined with resolute and purposeful management practises (Khomu, 2014:11). In an education sense, a

school principal needs to be both manager and leader for the school to achieve its mission effectively (Van Deventer, 2003:68).

The researcher, through own experience, is of opinion that to develop leadership skills is as important as management skills. The most important thing is that one gets the balance right of when to lead and when to manage. Therefore, as indicated earlier, the establishment of functioning management teams can be of great assistance for leaders. It can be concluded that management mostly relies on stringent rules and regulations of a specific system, whilst leadership requires courage, bravery and innovation as it is not always linked to a specific system of doing things.

As was pointed out in an earlier section, to be a leader is not only bestowed on some people but can be something that is developed. In the following section the skills and attributes that are necessary for effective leadership will be assessed.

3.2.3 Leadership skills and attributes

As was discussed earlier, leadership is not only a gift that is granted to certain people. It is rather an aspect with certain competencies and expertise that can be learned and practiced (par. 3.1). It is also not only people with a certain type of personality, e.g. extroverts, which will be able to be good leaders (Mills, 2005:32). Leadership rather entails the acquirement of specific skills or attributes in order to be effective. Some attributes may come more natural to some people, while others might find certain aspects of being a leader more challenging. Thus, people need to know their individual capabilities and shortcomings in order to develop their own leadership abilities towards being a successful leader.

In a study that was done by Blanchard (2010:3) there are some important and critical skills necessary for leadership. These are:

- Communication – The ability to listen, read body language, ask questions, provide feedback and generate effective two-way communication builds trust and improve performance and participation of employees.
- Effective management skills – The ability to be able to apply the appropriate leadership style on the individual's skills and competencies, and by being a role model and coach for others to develop.

- Emotional intelligence – The ability to put the needs, issues and concerns of other people ahead of their own by valuing others' opinions, emphasising, encouragement, building rapport and focusing on their uniqueness.
- Values and integrity – The leader needs to have integrity, a good character and a sense of humility to be a role model who leads by example.
- Vision – A good sense of the “bigger picture” and the ability to communicate the ideas to others, as well as mobilising other people towards the attainment of shared goals is of utmost importance.
- Empowerment – The involvement of others through encouragement and empowerment activities contributes to a collective movement towards taking ownership of the vision of an organisation and can unleash performance and productivity.

The skills as presented above are very important attributes to improve leadership capacity, especially when working with individuals in an organisation. In an education sense, the above skills are also fundamental for principals to lead schools successfully. These attributes also agree with the view of the researcher in the previous section.

Three other authors also discuss the importance of the development of leadership skills. According to Cooper and Nirenberg (2004:851) it is required of leaders to have the skills to pay attention to and be able to address the following three dimensions: (1) maintaining managerial goal emphasis and clarity; (2) having the ability to provide the necessary support for individuals to achieve their objectives; and (3) facilitating follower's interaction with one another to create efficiencies and good teamwork. Ancona (2005:2) presents a framework with four key capabilities that leaders need to possess. The capabilities of the framework are interdependent and leaders should cycle through them on an ongoing basis in order to be successful. They are: sensemaking; relating; visioning; and inventing. By developing all these skills over time leaders begin to invent their own way of making things happen. Figure 3.1 on the following page shows the four keys of the leadership framework.

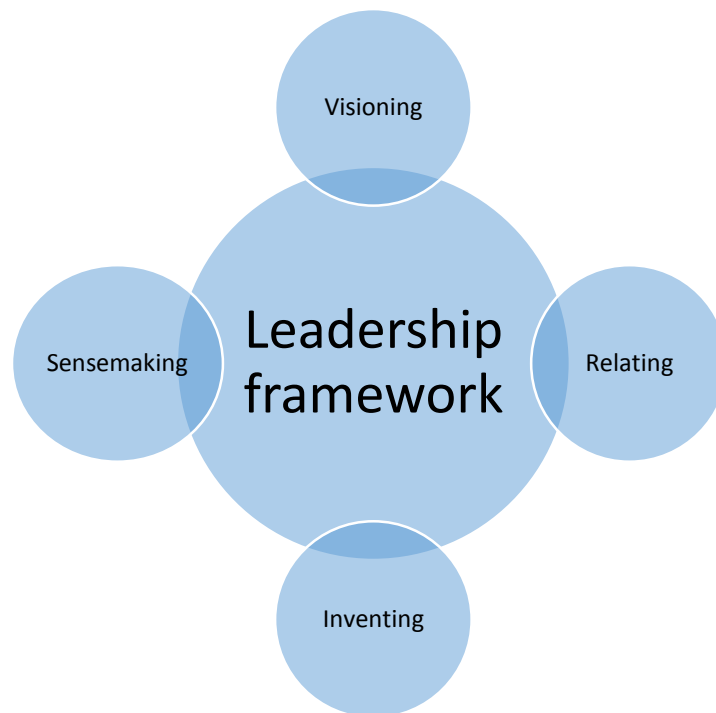


Figure 3.1: A leadership framework (Adapted from Ancona, 2005:2)

The above framework can be used to develop leadership ability through the use of reflective practises. Reflection on one's own ability and work can be a valuable source for the development of leadership, also in an education sense. The framework can also be valuable for using in the establishing and managing of networks. This subject will be explored further in a later section of this chapter (par. 3.4.4).

Booyesen (2014:10) agrees with the previous authors and presents the following idea of how the leader in the new era should be like. The leader should be a:

- Visionary – An inspirational and passionate mentor for others with a great vision for the organisation.
- Technologist – The use of technology and social media for the technological advancement of the organisation.
- Communicator – The use of open discussions and know-how to know when and with whom to share information with.
- Presenter – Excellent public speaking abilities are a necessity.
- Trade-name (Franchise) hero – Is a living example of his organisation that doesn't let failure derail him towards the vision, and celebrates success fully.

- **Equal** – Relationships are based on honesty and mutual respect and trust with little hierarchical systems in place.

These attributes, as was shared above, are seen as being necessary for leaders in a new and changing environment. Leaders need to stay ahead of current issues and be able to relate and connect to a vibrant and diverse workforce. By using these attributes a leader can ensure that the people in the organisation develop and that the organisation itself thrives.

Having considered all the above authors' views on leadership skills and attributes, the following characteristics that all effective leaders should possess are included (Van Deventer, 2003:70):

- **Provides direction:** Provides the way forward, generates a clear sense of direction and identifies new aims and structures (Booyesen, 2014; Eloff, 2014; Pretorius, 2013; Blanchard, 2010; Ancona, 2005).
- **Offers inspiration:** Has ideas and articulates thoughts to motivate others (Booyesen, 2014; Eloff, 2014; Pretorius, 2013; Blanchard, 2010).
- **Builds teamwork:** Spends time to build and encourage teams towards a collaborative effort as the most effective way of management (Eloff, 2014; Pretorius, 2013; Blanchard, 2010).
- **Sets an example:** Show others in the organisation "what" and "how" to operate within the organisation (Booyesen, 2014; Eloff, 2014; Pretorius, 2013; Blanchard, 2010).
- **Gains acceptance:** Tries to get their followers' consent through the manner and method of functioning and dealing with issues (Booyesen, 2014; Pretorius, 2013).
- **Servant leader:** Empowers others by working with people and giving them what they need to do their work (Eloff, 2014; Pretorius, 2013; Blanchard, 2010).
- **Organisational architect:** Initiates and orchestrates change necessary for the organisation's growth (Eloff, 2014; Blanchard, 2010; Ancona, 2005).
- **Leading professional:** Shows awareness of current issues and how to implement it in an organisational context (Booyesen, 2014; Ancona, 2005).
- **Moral educator:** Demonstrates the values and norms of an organisation in order to guide relationships (Booyesen, 2014; Eloff, 2014; Pretorius, 2013; Blanchard, 2010; Ancona, 2005).
- **Social architect:** Shows awareness of social and developmental concerns by making sure the organisation stays to the fore of technological issues (Booyesen, 2014; Pretorius, 2013).

These characteristics show the multi-faceted job that effective leaders have. As was mentioned in the beginning of this section these characteristics and attributes can be developed over time. When taking into account the viewpoints of the various authors on leadership skills and its associated characteristics, as presented above, it is clear that a variety of skills are needed in order to be competent and that these skills should be developed. The skills and attributes that leaders should possess to be effective and successful are complex, difficult and should continuously be explored and advanced to adapt to an ever changing environment. It is therefore essential that leaders should be aware of their own abilities and skills in order to have the right attitude to improve their own leadership proficiency. Professional development of educational leaders will be explored in a later section of the chapter (par. 3.5).

After looking into competencies of leadership there will be a discussion on the different leadership styles in the following section.

3.2.4 Leadership styles

The leadership style that is used by a leader can have an enormous effect, positively or negatively, on an organisation's functioning and way to the attainment of goals. The leadership style that is adopted by the leader should be carefully chosen to get a collective movement towards the shared goals in an organisation. If the wrong leadership style is implemented the people in the organisation's performance will not be fully utilised, whilst the use of the appropriate style should complement the values and aims of the organisation.

The main purpose of this paragraph is to provide a short and comprise overview of the more dominant types of leadership. The researcher doesn't claim to provide an in-depth discourse on leadership types but view the discussion as a background for the further exploration of the topic in this chapter. When referred to leadership styles some sources in the literature also refer to the term leadership types. It is important that leaders are aware of their own predominant style or type. This will assure that leaders know what their weak and strong points are and which areas need improvement. No single style is best suited for every situation and the style of leadership should be adapted as the situation requires it. This can assist leaders in their own professional development endeavours. If individuals of a network are aware of the different leadership styles they will be able to understand their own leadership style as well as other persons in the network better. Thus, having a better understanding of other people's thought processes and ideas on leadership. This will allow for consideration towards others' beliefs in the network process. In the following discussion there will be a look

into several leadership types, ranging from the traditional types of leadership to types of leadership that are integrated and have come to the fore more recently.

Traditionally there are three main types of leadership styles namely, autocratic, democratic and laissez-faire leadership styles. A brief description of each leadership style will be provided below:

- **Autocratic leadership** – The autocratic leader is given power to make decisions alone, having total authority. The will of the leader is implemented without taking into consideration the opinions of the subordinates. These types of leaders use their position to give orders to people and implement goal attainment (Gonos & Gallo, 2013:161). Human relations are usually poor and people are motivated by fear. Little staff development takes place and staff turnover is unusually high (Prinsloo, 2003:144). Creative employees and team players resent this type of leadership as they are unable to enhance decision-making through creative thinking (Loiseau, s.a.:1). The only advantage of an autocratic leadership style is that the organisation's performance is usually satisfactory (Prinsloo, 2003:144).
- **Democratic leadership** – This type of leadership is also called participative leadership and takes into account the ideas of the group before making a decision. The democratic leader, after taking into account the views of others, still holds the responsibility to make the final decision (Gonos & Gallo, 2006:162; Loiseau, s.a.:1). Human relations are usually good which results in an atmosphere which is conducive for the development of all people involved (Prinsloo, 2003:145). It is also characterised by a two-way communication movement of information and ideas between leader and subordinate, with the leader helping with the coordination and performing of duties (Gonos & Gallo, 2006:162; Prinsloo, 2003:145). According to Prinsloo (2003:145), the disadvantage of this type of leadership is that it can be time-consuming because all parties have to be consulted before a decision can be made.
- **Laissez-faire leadership** – This type of leadership is also called liberal leadership. The leader only uses his power occasionally and gives a certain amount of freedom to the subordinates. The leader relies on the subordinates to perform their duties in order to achieve the organisation's goals (Gonos & Gallo, 2006:162). This style of leadership is also associated with leaders that don't lead at all, and is passive and uninvolved, resulting in a lack of control and supervision (Prinsloo, 2003:143; Loiseau, s.a.:2). This type of leadership results in poor performance, no clear aims being set, general frustration and people becoming demotivated. The only advantage of a liberal

leadership style is that individuals get the opportunity to develop because they have to make their own decisions (Prinsloo, 2003:143-144).

It would be impractical for effective leaders to only make use of one of the traditional leadership styles, as every situation calls for different actions to be taken. For example a democratically orientated leader will sometimes have to make a decision without consulting other people, because of factors like time and distance. Thus, making an autocratic decision. In another instance a democratic leader can leave followers to complete a task without much supervision, depending on the difficulty and importance of the task and the follower's own ability. Thus, being a laissez-faire leader. Other factors that might influence which leadership style an individual uses are e.g. personality, values, knowledge, ethics and experience. The art is in finding the right leadership style for the specific situation.

The traditional leadership styles, as was presented above, are not entirely relevant for current leadership issues and one must look further than only these four leadership styles. A literature search also presented many more leadership styles that can all be linked to one or more of the traditional leadership styles. The leadership styles that will be part of the discussion include the following:

- **Situational leadership** – This type of leadership entails that every situation requires a unique course of action by the leader (as was discussed in the previous paragraph). Each situation will therefore have to be carefully analysed and adapted to the leader's personality and abilities, and within the environment or situation (Prinsloo, 2003:146).
- **Bureaucratic leadership** – The bureaucratic leader believes in structured procedures whether it was previously used successfully or not. There is usually little or no place for new or innovative ideas to solve problems (Loiseau, s.a.:1).
- **Charismatic leadership** – The charismatic leader leads by infusing energy and eagerness into other people and is often not pleased with the current situation (Loiseau, s.a.:1).
- **Task-orientated leadership** – The task-orientated leader focuses on the job and concentrates on specific tasks for goal attainment. This type of leadership and follower suffers the same motivational issues as autocratic leadership and requires close supervision and control to achieve the expected results (Loiseau, s.a.:2).
- **Distributed leadership** – Distributed leadership attempts to create participation between people with no clear leader in the work setting. Furthermore distributed

leadership is seen as a process whereby people, individually or collectively, influence others in order to improve in professional practice (De Lima, 2008:161).

- **Transactional leadership** – The transactional leader has power to perform certain tasks and reward or punish people for their performance. The leader lead the group towards the attainment of specific goals in exchange for something else, e.g. bonuses, leave days, etc. (Loiseau, s.a.:2).
- **Transformational leadership** – The transformational leader motivates his team to be effective and efficient through effective communication and by keeping the people focused on the big picture (Loiseau, s.a.:2). Botha (2004:240) adds that this type of leader is also future-orientated, responsive to the changing climate and is able to create a culture of excellence in productivity through people. Furthermore, transformational leaders convey the beliefs and commitment they stand for.
- **Servant leadership** – According to Winston and Patterson (2006:8) servant leadership stems from Matthew 5 in The Bible, where seven values are found and which is the base of this virtuous theory. The seven values are: (1) humility, (2) concern for others, (3) controlled discipline, (4) seeking what is right and good for the organisation, (5) showing mercy in beliefs and actions with all people, (6) focusing on the purpose of the organisation and the well-being of the followers, and (7) creating and sustaining peace in the organisation – not a lack of conflict but a place where peace grows. This type of leadership facilitates and inspires spontaneous goal accomplishment by giving its team members what they need in order to be productive (Pretorius, 2015:12). The leader is seen as an instrument that other people use to reach the goal rather than a commanding voice that tries to create change (Loiseau, s.a.:2).
- **People-orientated leadership** – The people orientated leader supports, trains and develops his personnel, increasing job satisfaction and interest in the work (Loiseau, s.a.:2). This type of leadership is closely linked to servant leadership.
- **Environmental leadership** – The environmental leader nurtures the group or organisational environment to affect the emotional and psychological perception of an individual's place in the organisation. Organisational culture is used to inspire the individuals and develop leaders at all levels (Loiseau, s.a.:2). This type of leadership also has close links with the servant leadership style.
- **Network leadership** – Network leadership is collective, distributed, bottom-up, facilitative, linking and emergent (Evans & Stone-Johnson, 2010:218). Network leaders get results by being able to recognise the importance of people outside of the organisation in such a manner that its perspectives and goals are clear to other

audiences (Winston & Patterson, 2006:8). Network leaders also get results by getting people from different environments together (Eloff, 2014).

It is important to note that there is no one-fits-all or correct leadership style. Each leadership style has its own advantages and disadvantages. Every situation in every organisation requires a unique leadership style that is best suited to lead the people, perform the tasks and is able to achieve the organisation's aims (Eloff, 2014). When you are aware of your dominant leadership style you can work on developing certain aspects of other leadership styles towards being a more effective leader (Eloff, 2014). Gonos and Gallo (2206:162) are of opinion that in practice no leader will conform to only one leadership style, but rather to mix styles as it is required by the situation. No matter what leadership style is used, the individuals involved and the circumstances of the situation should always be taken into account (Prinsloo, 2003:145). The researcher agrees with the viewpoints of the authors as mentioned above. It can be concluded that there are connections between some of the leadership types. For the sake of this study, it is important to specifically look at the network leadership style. Because of its specific characteristics, e.g. collective, facilitative, linking, etc., it can be used successfully towards leadership development, especially in diverse circumstances (par. 3.6). People engaging in networks benefit from it in a great way because they can learn from each other (par. 2.3.1.1 & 2.4.3). Networks were comprehensively discussed in chapter 2 of this research study. There will also be an in-depth discussion on network leadership and professional development later in the chapter (par. 3.4 & 3.5).

After the review of the different leadership styles, effective leadership will be the focus of the following discussion.

3.2.5 Effective leadership

In the previous sections different aspects of leadership were discussed and its importance for the development of an organisation. The question that arises when taking all of the aforementioned into account is: What does effective leadership entail?

Cooper and Nirenberg (2004:845) provides the following definition of leadership effectiveness: *"The successful exercise of personal influence by one or more people that results in accomplishing shared objectives in a way that is personally satisfying to those involved."* The authors further present some fundamental principles for leadership effectiveness (Cooper and Nirenberg, 2004:850). Effective leaders should:

- build a collective vision, mission and set of values to help people focus on their contributions;
- establish a fearless communication environment that encourages accurate and honest feedback;
- make information readily available;
- establish trust, respect and peer-based behaviour;
- be inclusive and show concern for all people;
- demonstrate resourcefulness and willingness to learn; and
- create an environment that stimulates extraordinary performance.

These principles, together with the definition of effective leadership, suggest that there should be openness in the organisation and that all stakeholders should be involved in the decision-making for leadership effectiveness. In an education sense, these principles are essential because of the diversity of stakeholders that need to be taken into account when leading a school. These stakeholders include, amongst others, parents, learners, teachers, community organisations, etc. (par. 1.2.2 & 2.4). Effective leadership can also be enhanced and achieved through the building of networks in diverse contexts. Networks in diverse contexts will be discussed in par. 3.6.

Prinsloo (2003:148) agrees with this and states that effective leadership should focus on both task performance (task-orientated leadership) and good relations (people-orientated leadership). These two aspects, when dealt with properly, contribute towards quality leadership. It doesn't matter which leadership style is used by the leader, the two aspects, task and people, are most important. If one of the two aspects is seen as superior to, or more important than the other, it can bring about that leadership is ineffective. Therefore, there need to be a good balance between task-orientation and people-orientation in order for other people in the organisation to stay motivated towards the attainment of the goals of the organisation. Prinsloo (2003:142) makes the following assumptions on quality leadership:

- It is not about the status of the position but rather about enabling and empowering the people involved.
- The role of an effective leader is to activate, direct, guide, mentor, educate, assist and support all staff so that they can focus on a shared vision, strategy and aims.
- Visionary leaders are aware of the fact that to empower those nearest to the process so as the process itself is cost effective.
- Quality leaders take into account the small things that can make a difference.

Two other authors support this idea. Pretorius (2013) is of opinion that effective leaders should be positive, passionate, enthusiastic, and have integrity, humility and a good value-system. Furthermore, leaders should be visionary, spend time with people, create good relationships and communicate effectively. Lastly effective leaders can make a difference by being accessible and by giving recognition to his/her followers. Eloff (2014) affirms this opinion and states that leaders need to be optimistic, realistic, balanced and keep perspective on how things are developing in an organisation in order to see new opportunities. Values, norms and judgement of opinions help to keep things together with the focus on what is important. Effective leaders also provide the energy that is necessary for the accomplishment of the shared goals.

The purpose of effective leadership is organisational effectiveness. Thus, if being effective is important, leadership should be measured. One of the major contradictions of leadership is that leaders are not accountable to their followers. They are appointed by their superiors to lead their subordinates. As long as the superiors are pleased, no matter how ineffective they are as leaders towards subordinates, they will be seen as effective (Cooper & Nirenberg, 2004:851). This view suggests that the only way that effective leadership can be evaluated is by involving all the other people in the organisation, including colleagues, followers and external stakeholders in an evaluation process. Evaluating effective leadership can be done through regular, observable feedback within the organisation. Surveys and action research that involve all parties can also be a valuable source for leadership effectiveness (Cooper & Nirenberg, 2004:850,852). For Cooper and Nirenberg (2004:852) the key features of effective leadership are high employee satisfaction, low stress levels among staff and high performance ideals. These features can quite easily be assessed and should form part of the evaluation of leaders.

After engaging the views of the authors on effective leadership the following conclusions can be made: When striving for effectiveness in leadership, it is essential to realise that the people in the organisation need to be recognised and involved in decision-making. Regular feedback sessions and a proper evaluation process is also imperative. By doing this, the organisation's goals will also be realised as the followers' ideas are valued, with them taking ownership of their actions.

It was highlighted throughout the previous discussion that effective leadership is necessary for the growth of any organisation. This is also the case with educational organisations (schools). Subsequently, leadership in education will be the focus of the next argument.

3.3 LEADERSHIP IN EDUCATION

Schools as organisations also need quality and effective leadership, especially in the 21st century where new challenges have arisen for school principals. More and more schools are managed like organisations in industry and business, which makes it more complex to lead successfully. In a recent case study of principals that was done in the United States of America (USA), 75% of participants felt that the job of a principal has become too complex, while 48% of respondents felt under great stress several days a week because of changing work responsibilities (Neale & Cone, 2013:4). Therefore, educational leaders need to have the necessary skills to lead and control schools effectively. As Mestry and Singh (2007:487) advocates: *“The appointment of principals with poor leadership and management skills has created an array of problem issues, criticisms and expectations, thus making schools more difficult to lead”*.

Management skills for effective leadership have already been discussed (par. 2.2). In this section there will be a look into the management tasks that leaders, specifically relating to schools, need to be able to perform. There will also be a discussion on the leadership abilities which are specifically required by educational leaders.

3.3.1 Education management tasks

Educational management is an interactive, inter-related process by educational leaders who manage teaching and learning in schools (Van Deventer, 2003:65). This include many management tasks, amongst others planning, problem solving, decision-making, organising, delegating, leading, etc. All these management tasks are performed with one main purpose in mind – to effectively perform the primary work of education, namely teaching. To efficiently perform these tasks an educational leader has two major responsibilities, namely to ensure effective teaching and learning and to establish sound relationships among different stakeholders of the school (Prinsloo, 2003:141; Van Deventer, 2003:67).

Mintzberg’s education management roles as presented by Van Deventer (2003:69) can be used as a good starting point for educational managers. The roles he identifies, each with its associated managerial tasks, are:

A) Interpersonal roles

- Leader – directs, motivates, inspires, and corrects, have good interpersonal relationships, a good balance between task and people, and management of power.
- Liaison officer – networks with individuals and groups in and out of school.

- Ceremonial head – receives visitors, signs documents and gives speeches.

B) Informational roles

- Representative – provides educators, learners and parents with information.
- Monitor – sifts formal and informal information, determines reliability, and evaluates official information.
- Distributor – distributes information inside and outside of the school.

C) Decision-making roles

- Maintainer of order – manages conflict and change, discipline learners and staff members, and do crisis management.
- Negotiator – negotiates with internal and external stakeholders as well as government officials.
- Allocator of resources – decides on subject, grade and learner placement, finances, venues and extramural grants, etc.
- Entrepreneur – manages ongoing improvement of the school, time and priorities.

As presented above, the roles of an educational manager are quite extensive and multi-faceted. An educational manager needs to assess his own abilities and attributes to be able to develop professionally. Effective leadership abilities and skills need to be developed and enhanced (par. 3.2.5). This has to be done through appropriate continuous professional development opportunities for school principals. This topic forms part of the rationale for the study and will be explored further in par. 3.5.

To further demonstrate the extensive roles of school managers, Van Deventer (2003:77) presents different management areas that must be dealt with by principals. These management areas include staff affairs, school community relations, physical facilities, financial affairs, administrative affairs, curricular affairs and extra-curricular affairs. The areas that have to be controlled are presented in figure 3.2. It can be seen as a circle, with each management area interconnected with and interdependent on the other areas. All of these aspects are important to effectively perform the primary work of education, namely to provide high-quality education to its clientele – the learners.

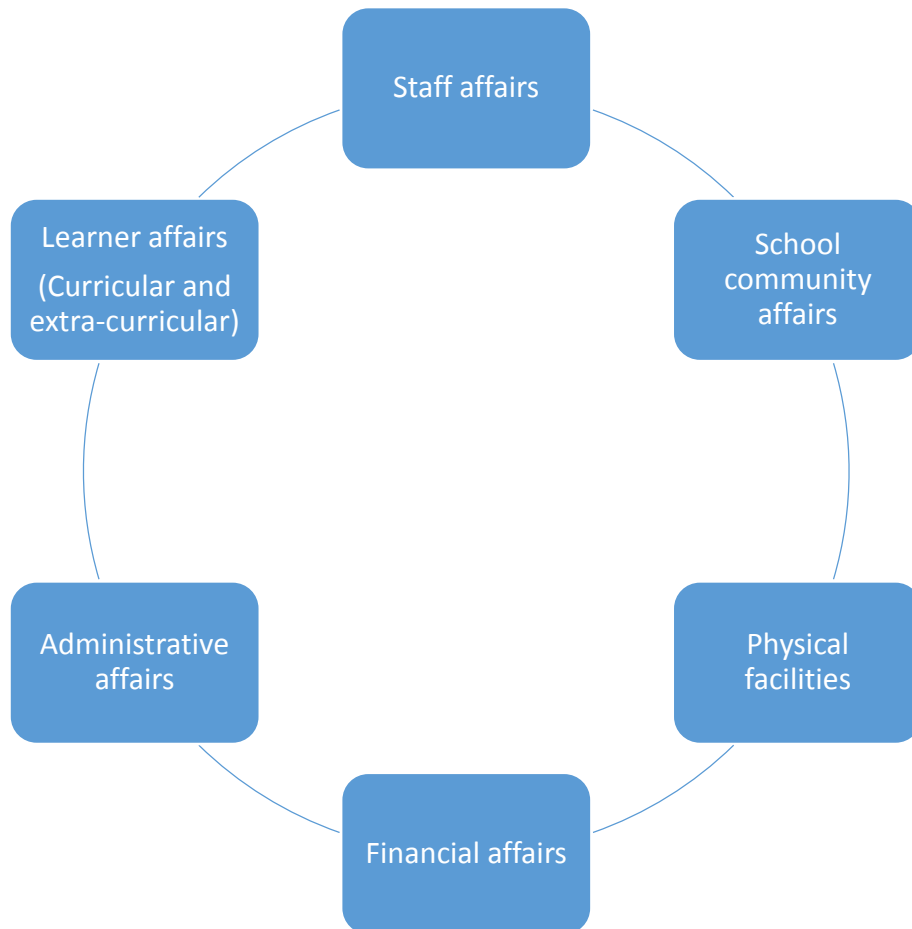


Figure 3.2: Education management areas (Adapted from Van Deventer, 2003:77)

The management tasks take place in one or more of the management areas and are undertaken by the leadership and guidance of the educational manager. When taking the above into account it is clear that the management of schools is a complex task with several different functions and responsibilities. Therefore, it is expected of educational leaders to have certain skills to be able to lead schools effectively. Networks, as presented in chapter 2, can assist educational leaders to lead schools effectively because of its advantages towards professional development. Network leadership and professional development will be discussed in par. 3.4 and 3.5. In the following part of the chapter, there will be a look into the specific abilities and skills that educational leaders require in order to be successful in their efforts.

3.3.2 Educational leadership abilities and skills

Most of the skills that are necessary for leaders to be effective in the private sector are also needed by school principals (par. 3.2.3). Mills (2005:10) notes that successful leadership in education enables children to become productive adults. Educational leaders need to take

the needs of private and public enterprises into account when using a specific leadership style and setting up leadership positions in a school. Educational leadership roles have changed and are increasingly about individual responsibility whereby all staff members should be included. The National College for School Leadership (NCSL) (2007(a):3) states that school leadership has a greater influence on schools and students when it is widely distributed. These leadership roles can be to change perceptions of colleagues, offering of alternative ideas and overcoming the fear of failure in others, thus reducing reliance on authority which is external to the group and centrally based, e.g. the school principal (Van Deventer, 2003:71). In the following presentation leadership attributes, specifically relating to education, will be explored. Although some of these attributes coincides with the general attributes (par. 3.2.3), it is necessary to examine it as this study is education specific.

Van Deventer (2003:69) also states that a school principal is very important in his/her role as educational leader. He/she acts firstly as a leader who directs, motivates and inspires others, and secondly as a liaison officer who networks with individuals and groups of people in and out of school. Prinsloo (2003:148) provides the following attributes of an effective educational leader. Educational leaders should have the ability to:

- Bridge the gap between where the school is and where it eventually wants it to be.
- Set realistic and attainable aims in consultation with subordinates.
- Link achievements of the aims with the satisfaction of their needs.
- Be an effective decision-maker and choose the right course of action.
- Organise diverse school activities meaningfully.
- Create horizontal and vertical two-way communication channels for everyone to use.
- Delegate duties, tasks, responsibilities and authority to others with the view to their development.
- Promote high performance ideals.
- Keep abreast of the latest trends and developments in education.
- Balance task-orientation and people-orientation.
- Motivate all staff members and learners.

Educational leaders need to recognise the complex nature of their work, as presented above. When realising this they will also appreciate the fact that they need to reflect on their own ability and try to develop the skills that need improvement. Networks can assist educational leaders to achieve effectiveness as its benefits towards professional development are valuable continuous. Networks can also be of value for educational leaders to build

partnerships with relevant stakeholders. Therefore, educational leaders should be skilled in leadership to forge and maintain linkages with the schools' external environment (Mathibe, 2007:531). School leaders should build a close relationship with the community and should be more responsive towards community expectations. School principals have an important role in connecting schools with the external world (Botha, 2004:240-241). To elaborate further on this point, Mathibe (2007:536) states that school principals must be able to market school products to the outside community. The building of sound networks is therefore necessary for school leaders. The importance of network leadership for educational leaders cannot be underestimated. Network leadership will be discussed in the following section. It also links to the rationale for the study (chap. 1).

The NCSL (2007(a):6-7, 10) agrees with the aforementioned and proposes five categories of leadership practices that explain the leadership abilities of educational leaders:

- Building vision and setting direction to motivate colleagues through group goals and demonstrating high performance expectations.
- Understanding and developing people by providing support to teachers through intellectual stimulating and modelling of appropriate values and behaviours.
- Redesigning the organisation by building a collaborative culture through the establishment of productive relations with parents and the community, and connecting the school to its wider community (Smith, 2012:130).
- Managing the teaching and learning programme by providing teaching support, monitoring all school activities and buffering staff against distractions from their work.
- Motivating staff members through positive influences and beliefs about their working conditions.

These practises provide a source of guidance to educational leaders as well as a framework for continuing leadership development in education, which forms part of the foundation for the study (chap. 1).

When assessing the skills and attributes that educational leaders need to do their daily tasks it is clear that school principals have to stay abreast of new and important developments and activities. It is also important that principals are well equipped with the necessary skills to lead a school effectively. Therefore, the professional development needs of school principals have to be identified and developed in line with the management tasks specifically relating to educational matters.

The use of networks is one of the ways in which attention can be given to school principals' professional development needs. Network leadership will thus be the focus of the discussion in the next section.

3.4 NETWORK LEADERSHIP

Network leadership is a term that has recently come to the fore in relation to leadership and leadership development. Network leadership has emerged as a result of the changing climate in organisations and the need for more collaborative efforts towards challenges in the workplace. The fact that network leadership is a new and quite unfamiliar leadership style suggests that leaders don't necessarily have the competencies and skills that are needed to be effective leaders in a collaborative and networked environment. This means that leaders need to be equipped to be able to work collaboratively with others, internally and externally, to the organisation. Network leadership is very important for the purpose of this study as the research is based on the professional development of principals (school leaders) who want to increase their capacity through participation in a network (par. 1.2.2 & 1.3.3).

In this section, the concept of network leadership will be explored. A discussion on how network leadership can be used towards the effective operation of an organisation will follow. There will also be an analysis of the developmental aspects that network leadership holds, especially towards the professional development of educational leaders. The section will be concluded with a discussion on the advantages and disadvantages of network leadership for school principals.

3.4.1 Concept description

Many authors refer to the term *network leadership* (Evans & Stone-Johnson, 2010:218; Reinelt, 2010:1; Hadfield, 2007:260; Jopling & Spender, 2006:20). This type of leadership, unlike most conventional approaches to leadership, is collective, distributed, bottom-up, facilitative, linking and emergent. According to Hoppe and Reinelt (2010:600) networks for leadership is a structure that has occurred in response to a rapidly changing world that is increasingly interconnected and where collaboration is needed to solve more complex problems. Leadership networks can provide support and resources to leaders and can increase the impact they have in their organisations. The above authors further state that leadership networks are a much needed entity for future leadership development efforts (par. 2.2.3.2.7). The CEB (2013:11) describes network leadership as an indirect form of leadership that is more about influence than control, where leaders need to create a work environment

based on collaboration, trust, sharing and empowerment. Network leadership further entails the influencing of internal and external stakeholders to work collaboratively towards the success of an organisation (CEB, 2013:13). Taking the above arguments into account as well as the discussion on leadership (par. 2.1), the researcher, according to his own understanding of the concept, presents the following definition of network leadership:

“The establishment of an environment in which one or more persons indirectly influence others by creating a network structure in which others can develop individually and to collaboratively meet the aims and objectives of the group or organisation.”

The researcher formalised his own definition of network leadership after consulting the literature. This was done to be used as a guideline towards understanding the concept of network leadership, as the literature sources that were consulted didn't provide a clear definition of what this concept entails. Furthermore, it can also be seen as an expression of the researcher's own idea of and thoughts on the specific topic, based on an extensive consultation process of relevant literature in this regard.

The concept of network leadership might be unknown or unfamiliar to some people and many leaders and organisations find it challenging to adopt a network approach to leadership. To be able to utilise the true value of collaboration leaders need to expand their mindsets in order to see the power of networks. This approach is essential for the challenges leaders are presented with in the 21st century. Reese (2004:20) argues that the forming of networks is essential to ensure strong leadership. Henderson (2005:1) echoes the aforementioned by stating that great networkers make great leaders. Great leaders create simple systems that enable them to connect with others, stay connected and create valuable lifetime connections with key people. Mestry and Singh (2007:483-484) are also of the opinion that the style of leadership plays a crucial role in cementing lasting and co-operative relations with the community and other role-players. Leimbach (2013:1) believes that successful managers spend 70% more time networking than their less successful counterparts because they can access people, information and resources quickly and easily to identify solutions to current problems. In recent research that was done by Townsend (2015:734) in the United Kingdom (UK) on the development and promotion of educational networks through the *Networked Learning Communities' programme (NLC)*, it was noted that schools are complex, multi-faceted social settings with diverse forms of leadership which arise within and beyond schools. He further appeals that there is a need for research on a networked conception of educational leadership which looks beyond the confines of single organisations. This viewpoint agrees

with the aims of this research (par. 1.3). The diversity of networks will be explored later in this chapter (par. 3.6). By taking in mind the ideas of the authors in this paragraph the following conclusion can be made: Being part of a network help leaders to make better and faster decisions as they can use the network as a trusted set of advisors and because they have support and resources for their ideas, as well as creative and collective solutions to their challenges.

As was noted earlier, leadership can be enhanced through the power of networks. With this frame of mind the following part of the discussion will focus on the professional development of educational leaders through networks.

3.4.2 Network leadership for the professional development of principals

Educational leaders can also use networks for professional development purposes. Rieckhoff and Larsen (2011:63, 71), Anon (2006:10) and Lieberman (1996:54) is of opinion that a distinct feature of effective networks is that they provide numerous opportunities for leadership to emerge and develop. The discussion of the literature to follow will look into such practises.

The literature suggests that cooperation between individuals and organisations has been done for years but the true collaborative value thereof has only been realised in the last decade or two. Different authors have made assumptions about networks and collaboration and the learning value it can provide to its participants. Almost two decades ago Restine (1997:127) noted that partnerships and mentoring can provide the means for testing fundamental assumptions and beliefs concerning the nature of power, authority and leadership. The author realised that by working together with others an individual can measure him/herself against other people and also use the association to develop professionally. This notion was also supported by a study of a cooperative network in West Alabama in the USA by Mullen and Kochan (2000:198), in which the respondents noted that networks acted as a structure for allowing their values to emerge, coalesce and inspire others. Thus, they have a greater appreciation of educational reform and a positive attitude towards educational change. Jopling and Spender (2006:20) state that the focus of network leaders are building capacity for individuals to flourish and for schools to continually change, innovate and improve. The authors above agree with the fact that networks can be used for benchmarking and to develop professionally.

Another contributing factor of networks towards leadership is that it can develop interactions between individuals and organisations. Individual relationships are an important factor to take into account when using network leadership for professional development. School changes

emerge from interactions between people and are very much dependent on maximising the flow of expertise and resources within an organisation (Penuel & Riel, 2007:615). Personal networks are also regarded as important for innovation purposes. Engagement in professional, cross industry networks has been found to stimulate the development and adoption of new innovations. Individuals within these networks become aware of new technologies or opportunities in their own field (Jolink & Dankbaar, 2010:1437). The authors further elaborate that people management should be done in order to develop inter-organisational networking. Buttram and Farley-Ripple (2013:13) agree with the authors above and makes the statement that if relationships are the conduits for knowledge, then understanding relationships will help us to build capacity for improvement and change. Networks can enable the development of productive relationships that support positive organisational culture and norms and shared practice among school principals (Buttram & Farley-Ripple, 2013:15). Productive, reciprocal relationships and good-quality two-way communication are two essential and crucial factors for beneficial network participation.

The professional development of educational leaders is the focal point of this section. Many authors observe the significance of network engagement for development purposes. De Lima (2008:160) argues that networks can be used for the encouragement of distributed leadership. This type of leadership encourages the development of leadership across a range of employees in an organisation, creating a more widespread decision-making process. Hadfield and Chapman (2009:75) expand on this notion and view network leadership as the type of leadership that can be successfully used to respond to the greater challenges and complex agendas that have emerged in schools during recent times. The complex challenges are a result of the fact that children's needs have become more integrated and schools have been shifted to the centre of local communities to provide in everyone's needs. These multi-faceted demands resulted in a situation where networking and collaborative enquiry across traditional boundaries have become more important and prominent. Hadfield and Chapman (2009:75) further argue that network leadership is not based within the structures of traditional organisations, but rather lies within the network's relationships and collaborative practices of the network system. Therefore, it can be successfully used to overcome complex difficulties. Other authors that see the value of networks are Bush, Kiggundu and Moorosi (2011:36). They are of the opinion that networking is currently the most favoured mode of leadership learning. Its main advantage is that there are strong potential for ideas transfer and live learning, particular for those in similar contexts. This can contribute towards effective personal and school development.

The importance of networks and collaboration for leadership development, as presented by the authors above, cannot be underestimated and should form part of professional development for educational leaders. Other authors like Hadfield and Chapman (2012:110), Rieckhoff and Larsen (2011:69-70), Evans and Stone-Johnson (2010:203), Hoppe and Reinelt (2010:600), Gordon, Donaldson, Bowe, Mackenzie and Marnik (2004:539), Wohlstetter and Smith (2000:513) and also Restine (1997:125) agree with the above statement. Leadership networks present many benefits for its members. Leadership networks provide resources and support for leaders, increase the scope and scale of impact leaders can have individually and collectively, and can contribute to learning and development of school leaders

One can then ask the question: What is it that network leaders do? According to Mullen and Kochan (2000:183) there is a growing awareness among educational leaders to design collaborative organisational structures as they can appreciate the benefits of networks in an educational environment. With the above in mind the NCSL (2007(b):3) suggests five key roles that successful network leaders should fulfil. These roles are:

- Communication
- Knowledge management
- Changing relationships
- Building capacity
- Planning for sustainability

These key roles, as presented above, are seen as important factors that need to be appreciated and developed if network leaders want to fully understand the complexity and importance of the role they fulfil.

In figure 3.3 below, a model of the interactions between leaders in a network is illustrated. According to Hadfield and Jopling (2012:116) it is important to reach a balance between the different interactions in a network to recognise the full effect of networks and their influence on leaders. The authors are also of opinion that if the balance between purpose, own identity and mutual knowledge is not in place, relationships in networks can play just as an important role to resist change as they can to support development and innovation (Hadfield and Jopling, 2012:117).

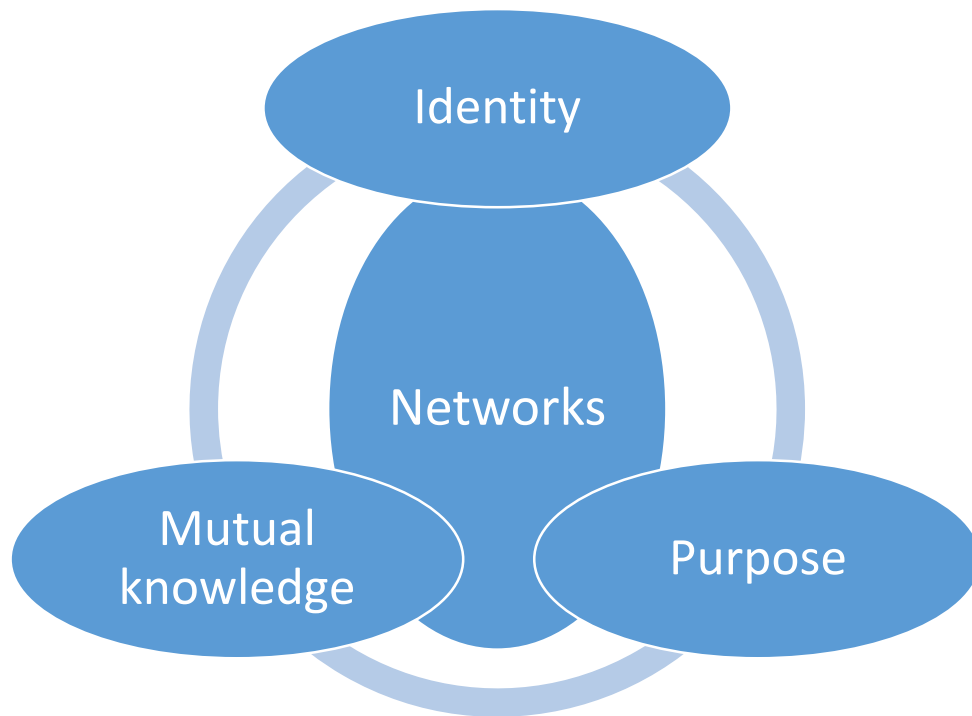


Figure 3.3: A model of the interactions between leaders in networks (Adapted from Hadfield & Jopling, 2012:115)

Taking the above argumentation into consideration it can be argued that network leadership can be successfully implemented for the professional development of educational leaders, as long as network leaders understand and appreciate the complexity of the collaborative structures of networks. The possibilities for professional development are endless – from knowledge and ideas sharing to innovative cross-industry solutions for complex problems. All developmental issues can form part of a network's functioning. The development of participative leadership abilities can also be enhanced through network participation. These factors make networks ideal for developmental purposes.

However, there can also be some challenges that need to be overcome when principals participate in networks. The possible challenges of network participation for principals will be looked into in the next section, e.g. the professional development of school principals.

3.4.3 Challenges of network participation for principals

Networks, although seen by most people as positive, can also present some challenges. In the previous chapter the establishment and sustainment of a network was discussed (par. 3.4 & 3.5). In general, to be able to establish a network for a specific purpose is one thing, but sustaining it over time might be problematic. Network members need to make sure that a

network is managed in such a way that it provides the necessary answers to common challenges in the network as well as to support the continuous professional development of all its individual members. If that is not the case with the specific network, it will lack longevity and will probably phase out after a short period.

Bush *et al.* (2011:37) are of opinion that a lot of people that engage in a network for the first time have no idea of what good networking entails. Another problem that is found within networks, is that people understand networking differently, thus making participation difficult and incomplete. This notion is also supported by Kiggundu and Moorosi (2012:222) in their study of the ACE programme on professional development of principals in South Africa.

Lieberman (1996:54-55) presents some challenges for network participation which the author refer to as tensions. In general, these challenges mostly involve negotiations of the tensions between personal conflict and organisational disequilibrium, i.e. negotiating between own and group knowledge, negotiating between network purpose and daily activities, negotiating between inclusivity and exclusivity of the group, etc. Taking the views of the author into account the researcher believes that the collaborative effort in education should always be placed above that of the individual.

One aspect that can present itself as a challenge is the different views on leadership and authority by some principals. If the understanding of the functioning of and participation within a network are not aligned with the other members of the network, it could have a negative effect on constructive networking. Some individuals may find it difficult to participate in networks as leaders are expected to lead without formal power or authority (Hadfield & Chapman, 2009:75). Power struggles can also occur within networks because of certain individual's own agendas. Therefore, new skills and relationships have to be implemented which some principals may find challenging. Principals will have to change their thinking-processes and views on leadership in order to work collectively and cooperatively.

Another aspect principals need to consider when actively engaging in networks is the fact that they will have to work in collaboration with other principals as part of a team. A network's primary purpose should be to lead development and coordinate activity across the network in order to create the necessary change and response towards common problems. Principals will have to learn to be team-players when participating in a network.

A lack of communication can also be a challenge that principals need to overcome when participating in a network. Accurate two-way communication is seen as one of the most

important factors for good network participation (Kiggundu & Moorosi, 2012:221). Without it, principals will not be able to develop new skills and attributes necessary for effective network participation.

A challenge for some principals can also be to be able to engage with people from i.e. different cultures, backgrounds, gender, age and languages. These diversity issues will need to be addressed before entering into a diverse network as members of the network will have to have the right attitude and mindset towards these diversity issues. If principals cannot make the mind shift towards embracing the diversity that different people can bring into the network it will not be functioning to its full potential. Networks in diverse contexts will be discussed in par. 3.6.

A last challenge that principals need to overcome is their own lack of willingness to change. Hadfield and Chapman (2009:77) describe principals with this frame of mind as network pessimists, who engage in collaboration through selfishness and motives linked to empire building. These educational leaders look for ways to secure and maximise their own or their school's resources without engaging the network effectively or not at all. Principals will have to put their own egos and agendas aside in order to be open-minded enough to learn from others in the network. Without an unbiased and unprejudiced outlook on the circumstances and aims of the network their own development will not take place.

As was noted in the beginning of this section that principals' participation in networks can be advantageous towards their own development. Thus, the following section will look into the advantages of network participation for principals.

3.4.4 Advantages of network participation for principals

Collaborative learning is a strong theme with regards to the benefits of networking. In the literature many authors discuss the advantages and positive effects that collaboration and networking can have for educational leaders that are part of networks. These advantages include, among others, social and emotional support and motivation, encouragement towards distributed leadership and the learning of leadership skills, greater learning and collaboration for solving complex problems. It is also beneficial towards the development of new innovations and professional competence, provision of resources and support for leaders, thus increasing the scope and scale of the impact leaders can have individually and collectively, and contribute to learning and development of school leaders (Hadfield & Jopling, 2012:110; Kiggundu & Moorosi, 2012:218-219; Rieckhoff & Larsen, 2011:69-70; Evans & Stone-Johnson, 2010:203; Hoppe & Reinelt, 2010:600; Jolink & Dankbaar, 2010:1437; De Lima, 2008:160; Jervis-

Tracey, 2005:298; Gordon *et al.*, 2004:539; Wohlstetter, 2003:399; Wohlstetter & Smith, 2000:513; Restine, 1997:125). The views of the above-mentioned authors demonstrate all the positive effects that network participation can have for principals.

In a study by Kiggundu and Moorosi (2012:224) on the perceptions and realities of networking as part of the ACE school leadership programme, the following practical advantages were noted by respondents:

- Invaluable professional knowledge, experiences and ideas were shared.
- Solutions and effective problem-solving strategies were shared.
- Similar experiences with other school leaders were exchanged.
- A bond was formed between participants that can be used in future.
- Support was provided to each other, personally and professionally.

These advantages coincide with the advantages of participation in a network as was discussed throughout the literature (par. 2.2.6.2).

As with most networks, it will depend on the individual's mindset on how participation in a network will be experienced. Those who take a constructive approach and have a positive attitude will benefit more from networks than those with a negative mindset and their own hidden agendas. In general, the most significant advantage of network participation for principals may well be the fact that new long term relationships are formed. Linkages with unfamiliar and diverse individuals with similar problems are developed. This association with diverse people and skills can contribute to principals' own professional development as well as to the school's improvement. Principals no longer have to struggle on their own, but can link up with other network members for assistance, solutions and ideas on challenges that they might experience, or if they just need some support or encouragement with their daily tasks. Participation in reflective practice with colleagues is also seen as important for motivation purposes. As Berkowicz and Myers (2014:1) state: *"being able to blow off steam about the frustrations that accompany leading schools these days can make us feel like we have company in these difficult times."* Participation in networks provides the opportunity for reflection, which forms an important part of professional development (par. 3.2.3).

Having looked at network leadership in this section, the following discussion will focus on the professional development of principals in a South African context and the exploitation of networks to accomplish it.

3.5 PROFESSIONAL DEVELOPMENT FOR PRINCIPALS

The professional development of principals is viewed by many as an important aspect of school development and achievement. Authors like O'Connor (2014:3), Bush *et al.* (2011:37), Kiggundu and Moorosi (2011:39) and Botha (2004:239) have stated the importance of leadership for the purpose of school development. School principals in the 21st century need to be trained as professionals that can make a difference in their communities and the external environment.

In this section the need for the professional development of principals in South Africa will be analysed. There will also be a look into existing professional development programmes for school principals. Lastly, there will be a discussion on the role that networks can play in the professional development of school principals.

3.5.1 Professional development of principals in a South African context

As was discussed earlier in the chapter educational leaders require many different management and leadership skills (par. 3.3). Not all leaders in education possess the necessary skills to interpret the complex demands that their work expect of them. Therefore, it is important that educational leaders have to be trained and developed in many leadership and management strategies to stay abreast of the challenges that they are faced with and continuously develop individually and professionally towards the advancement of the school. Professional development should be regarded as a never-ending commitment by principals to update their skills and knowledge in order to remain professionally competent. Principals all over the world receive opportunities for professional development. In some countries, like the USA, the United Kingdom (UK) and Australia, as well as in other parts of the world like the Middle East, Europe and the eastern countries, principals are given formal training and are certified, while in other countries, like South Africa, the training of school leaders are very limited (Neale & Cone, 2013:3; Mathibe, 2007:526-529; Van der Westhuizen & Van Vuuren, 2007:432).

Effective leadership models and strategies concerning networks need to look at involving all stakeholders in education and create interrelated partnerships that are sustainable. Smith (2012:128) recommends that a strategy for purposeful networking will help educational leaders to not only grow as principals, but all the parties involved at school will benefit through improved learner results, sponsorships, increased parental involvement, less social problems and more collaboration between concerned parties overall. Education leadership is dynamic in which networking, if implemented and managed effectively, can play a significant and crucial

role to assure quality teaching and learning, which is a national priority and in some circles regarded as a crisis in education.

In a study that was done in 2013, amongst principals and deputy principals in South Africa, by the South African Council of Education (SACE) the following professional development needs, in order of importance, were identified (Singaram, 2015:12):

- Providing leadership, mentoring, support and development.
- Financial management.
- Policy development and implementation.
- Managing quality of teaching and learning.
- Management staff appraisal and development.
- Computer literacy.
- General institutional management and administration.
- Administration of resources.
- Training on changes in legislation or policies.
- Management of infrastructure and resources.

Because these professional development needs were identified by leaders in the education system, it can be used as a valuable starting point in professional development programmes for school principals in South Africa. What is significant of these results are the fact that respondents (school leaders) identified the provision of leadership, mentoring, support and development as the most important need for their professional development. This can be seen as a plea by school leaders in South Africa and agrees with the advocacy that is made in the literature for the implementation of a formal school leadership development qualification, (par. 5.2 & 5.3).

The Department of Basic Education (DBE) has developed a *South African Standard for Principals (SASP)* that fully defines the role of school principals and the competencies required. Eight interdependent key areas of principalship in a South African context is one of the elements of principalship. These key areas are (The Department of Basic Education (DBE), 2014:14):

- Leading the learning school.
- Shaping the direction and development of the school.
- Managing quality and securing accountability.

- Developing and empowering others.
- Managing the school as an organisation.
- Working with and for the immediate school community as well as the broader community.
- Managing human resources in the school.
- Management and advocacy of extra-curricular activities.

These key areas are promoted for the development of school principals, each with its own knowledge requirements and actions to be taken in implementing it at school level. The eight key areas provide a focus for the continuing professional development of aspiring and existing principals. The current challenge lies with the successful implementation of the system.

In South Africa, unlike in countries like the USA and UK, any educator can be appointed as a school principal, irrespective of the fact that he/she has been trained in school management and leadership (Mathibe, 2007:529). This can have a severe influence on schools because of the lack of leadership and management competencies. To further add to the problem is the fact that there are little or no compulsory opportunities for the professional development of principals. Once principals become fully-fledged leaders there are not many systems of ongoing learning or support in place. In some provinces, e.g. Gauteng and the Free State, newly appointed principals undergo a short course in school management and leadership, but thereafter very little is done to ensure that school principals stay equipped for the complex and continuously changing profession they find themselves in. High demands are placed on them by Education departments, parents, external stakeholders, etc. They are expected to improve teaching and learning, increase performance of teachers, manage school finances adequately and lead complex schools powerfully, sometimes without the ability and expertise to do so.

According to Bush *et al.* (2011:39) new principals experience great difficulty in adapting to the demands of their role as school principals. Authors like Mathibe (2007:529), Mestry and Singh (2007), Van der Westhuizen and Van Vuuren (2007:434) and Botha (2004:139) have long been campaigning for a compulsory professional development programme for educational leaders that should include training in personnel management, organisational development, skills development, administrative management and curriculum management, etc. Principals in South Africa that has the desire to develop professionally are more often than not dependent on themselves for acquiring the necessary knowledge and skills. The acquirement of knowledge, attributes and skills to lead effectively requires systematic development (Bush *et al.*, 2011:39), which is not the case with developing principals in South Africa at the moment.

Having looked into the status of the professional development of principals in South Africa, the following section will analyse the existing professional development programmes and opportunities for school principals.

3.5.2 Professional development programmes for school principals

In developing principals, the focus should be on preparing them to be able to confidently lead the diversity of stakeholders of the school for the benefit of the learners and the community. Much of the development of school leaders in South Africa is unfocussed and not systematised. According to Mathibe (2007:529) most development opportunities in South Africa are *ad hoc* attempts to provide skills and attributes to school principals. The researcher agrees with the views of the previous author. Short courses, meetings and workshops that are provided by the different provincial educational departments are sometimes irrelevant, inadequate and contribute little to the continuous development of principals. Subsequently, there will be a discussion of the existing development opportunities for principals.

As was mentioned in the previous section the DBE has developed a *South African Standard for Principalship* to aid in the development of principals. The principalship comprises of four elements. These are (Department of Basic Education, 2014:9):

- The core purpose of principalship: The standard is built on the definition: *“The core purpose of principalship is to provide leadership and management in all areas of the school to enable the creation and support of conditions under which high quality teaching and learning take place and which promote the highest possible standards of learner achievement”*.
- Educational rights and social values: The values shape the way in which the school works towards the achievement of its vision and goals.
- Key areas of principalship: The eight key areas are interdependent on each other and illustrate the knowledge requirements as well as the actions that are needed to take (par. 3.5.1).
- Personal and professional attributes: These are the range of attributes a principal need to carry out to be effective.

These elements underpin the principal’s school leadership and management practices. The relationship between the elements of the *South African Standard for Principalship* can be seen in figure 3.4 below. In the diagram the core purpose, being leadership and management, is

in the centre of the diagram. The other three elements are subjected to and directed by the core purpose.

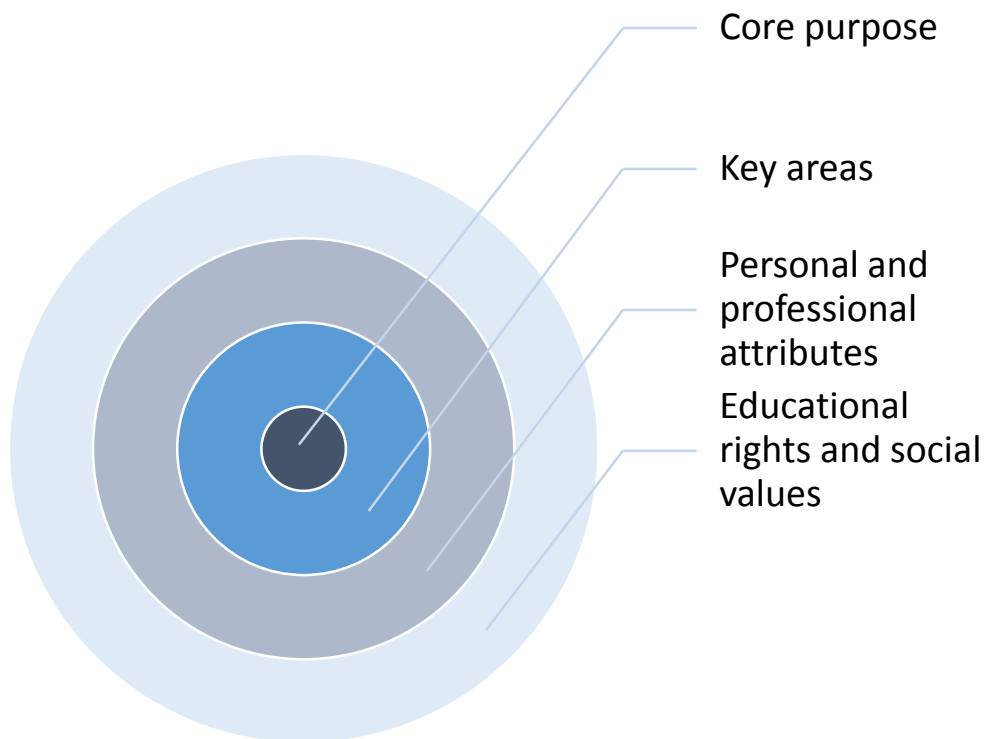


Figure 3.4: The South African Standard for Principals (SASP) (DBE, 2014:11)

The *South African Standard for Principals (SASP)* was designed to improve professional standards of leadership and management for the benefit of the learners and the quality of the education system as a whole. The standard for principalship has merit and could be valuable, but in reality the implementation of this creditable standard principalship at the moment can be viewed as highly idealistic at best. The functioning thereof is still problematic as there is no current compulsory training on the standard for principalship. The researcher also anticipates challenges in monitoring the operation and success of the implementation of the standard for principalship. Other challenges that could hamper the implementation of the proposed standard for principalship can be financial and capacity related restraints in the provisioning of the programme towards the development of school principals¹.

¹ Very recently (18 March 2016) the Minister of Basic Education in South Africa published the *Policy on the South African Standard for Principals* in terms of Section 3(4) of the National Education Policy Act, 1996 (Act No. 27 of 1996) (DBE, 2016). This policy was well received and accepted by educational organisations, e.g. governing body associations and teacher unions (Davids, 2016:2).

One method to improve one's own abilities and strengthen your skills is through better qualifications. Higher Education Institutions in South Africa present many post-graduate courses in Education Management and Leadership. Although this can be valuable for principals' development, it is not compulsory and accessible to all. The other challenge with post-graduate courses is that it doesn't always provide the necessary capacity and competence to practically help school principals with everyday management and leadership shortcomings, challenges and problems. One course that is presented by several Higher Education Institutions is the *Advanced Certificate in Education (ACE)* course. There are concerted efforts to implement the *Education Leadership and Management (ELM)* and *Education Management Development (EMD)* strategies through the presentation of the ACE programme (Bush *et al.*, 2011:31; Mathibe, 2007:529; Mestry & Singh, 2007:477; Van der Westhuizen & Van Vuuren, 2007: 431). However, Mestry and Singh (2007:484) are of the opinion that there is still much to be done with the implementation of the course, as there is little or no coherence between the different service providers. Bush *et al.* (2011:41) are also sceptical about the effect of the ACE programme on the development of principals and is of opinion that a stronger focus on leadership and management practice is required to develop more effective principals. The authors recommend that an entry-level qualification should be developed for all new principals in South Africa, which could aid in providing the necessary attributes to lead schools effectively. Van der Westhuizen and Van Vuuren (2007:435) also support the view that compulsory training should be provided to all school principals.

The Department of Basic Education (DBE) does offer some assistance with professional development activities, although these activities are somewhat limited at the moment. The South African Council of Education (SACE), which regulates the teaching profession in South Africa, have introduced the *Continuing Professional Teacher Development Management System (CPTD)* in 2011 whereby all teachers and principals need to obtain professional development points as evidence of development in the teaching profession. The system is managed in collaboration with the nine provincial Education departments and with the support of the DBE (SACE, 2011). The aim of the management system is to increase the professionalism of teachers in South Africa and ensuring that the quality of professional development programmes and activities is of the highest standard (Mokgalane, 2015:3; Steyn, 2012:45). The CPTD management system is made up of the following three pillars (Horn, 2015:4):

- **Continuing:** Learning never ceases, regardless of age, seniority or status.
- **Professional:** The management system is focused on developing all teachers professionally.

- **Development:** Educators are provided with clearly defined goals of improving teaching and enhancing professional practice by means much wider than formal training courses.

These pillars, as presented above, coincide with the focus and problem statement of this research study (par. 1.1). The importance of the continuous professional development of school principals was elucidated earlier (par. 3.5.1) and these pillars correspond with the views of the researcher about this aspect. The implementation of the CPTD management system is still somewhat problematic which will be looked into in the following paragraph.

The main aspiration of SACE, together with the DBE, is to assure that all educators' development needs are aptly catered for by providing accessible and quality professional activities in strategic ways, in order to strengthen the capacity of all educators (Singaram, 2015:15). Although the CPTD system is a virtuous initiative with appropriate objectives the implementation, management and regulation thereof are foreseen as a challenge. Another issue of the management system is that teachers and principals are accountable for their own professional development towards effective teaching and leadership with very little purposefully planned activities and regulation procedures in place. As Horn (2015:4) states: *"Teachers must be the main drivers of professional development"*. The educators involved in the management system are given very little assistance and support on how to develop professionally with very few feedback opportunities. Quite a lot still has to be done for the CPTD management system to provide in the professional development needs of school principals.

The different education unions in South Africa also attempt to develop principals through the provision of short programmes. Although very helpful, these short programmes are also limited and don't always supply continuous development opportunities for principals. These programmes are also not regulated thoroughly. Each union can decide their own content for professional development. This fact makes these programmes unfocussed. The South African Teacher's Union (SATU/SAOU) is one union that provide programmes that can be helpful towards principals' development. They offer short courses, workshops and a symposium for principals each year, where principals can not only listen to and engage with education experts and authorities on relevant topics, but also link up and relate with other principals on current issues. This can be very helpful towards developing principals' skills, attributes and thinking-processes, making them more effective leaders. These programmes also agree with the notion that professional development can be achieved through the use of networks (par. 3.4.2 & 3.4.4). An example of such networks can be seen in a recent

development by the South African Teachers Union (SATU/SAOU). *Professional Learning Communities (PLCs)* was initiated for its members through the means of *Facebook* pages. These PLCs operate in the form of a virtual community and are created within certain fields of education, e.g. Technical schools, Grade 1-6 Mathematics teachers, Grade 12 Language teachers, etc. The main aims of the different PLCs is to improve teacher practice by focusing on learning difficulties and solutions and at the same time to improve learner achievement (SAOU, 2015:1-2). The use of social networking for professional development objectives, like the above-mentioned PLCs, was discussed in chapter 2 of this research (par. 2.2.4.2). Although these PLCs are still in the beginning stages and still needs to be developed and advanced to a certain degree, it is a step in the right direction towards using networks for professional development. The use of PLCs for professional development will be discussed in the next paragraph (par. 3.5.3).

The researcher agrees with the observations of Mathibe (2007:530) by remarking that professional development programmes in South Africa are mostly fragmented, uncoordinated and sometimes irrelevant. In order to improve the situation in South Africa there should be more control over professional development programmes provided by the different state and private organisations. The training of school principals should be considered compulsory (Van der Westhuizen & Van Vuuren, 2007:435). Professional development programmes for principals should also provide relevant and practical solutions and assistance with everyday challenges that they are confronted with.

In the previous section on network leadership the discussion focussed on the opportunities for the development of leaders through the use of networks. It was noted that networks can be effectively used as a means for the development of leaders (par. 4.2). To link up this notion, the last part of the argument on the professional development of principals will focus on the use of networks for development purposes.

3.5.3 Professional development of principals through networks

Networks and network leadership can also be used as a successful means of developing and supporting principals in their profession. There has long been a campaign for collaborative and collective coaching and training of principals. More than a decade ago Botha (2004:241-242) already proposed a “*new professionalism*” for school principals in South Africa because of the changing attributes and strategies that are needed for educational leaders of the new millennium. He argued that leadership is the most important element of a principal’s role and that a good principal values empowerment through the sharing of ideas, thus networks. During the same time, Riggins Newby and Hayden (2004:7) shared an action plan that was proposed

to help principals in Buffalo, New York in the USA to focus on the positive image of the principal through networking. Recently, the use of networks for the professional development of principals in South Africa has been highlighted by authors like Kiggundu and Moorosi (2012), Bush *et al.* (2011), Mathibe (2007) and Van der Westhuizen and Van Vuuren (2007).

Mathibe (2007:531-532) is of opinion that in the present dispensation principals should be schooled to understand that schools should have functioning linkages with their external environment and that they cannot do everything on their own. Together with this, it is important that principals shift their leadership style towards participative leadership to solve complex workplace problems. There are organisations that already use networks for development purposes. One such an example is *The Schools Network* – an independent organisation dedicated to raise levels of achievement in education in the United Kingdom. Their main aims are to develop leadership and teaching through practice sharing within networks and to provide accredited leadership and professional development using the “by schools for schools” principle, whereby schools learn from each other. One of their objectives is to raise the standard of the education system as a whole (The Schools Network, 2011:2-4). This is a classic example of professional development activities that are systematically undertaken through the use of networks.

In recent times many other authors have promoted and suggested the need for the professional development of school principals by use of collaborative enquiry. According to Tafel-Viia *et al.* (2012:176), networks can be used as “*agents of educational change*”. This occurs because different partners on different levels are engaged with each other and networking supports a positive attitude towards educational change as it has become part of educationists’ professional practice. Hadfield and Jopling (2012:111) looked into how network theories can support school leadership research. They are of the opinion that network theories must address the development of social capital within a school as organisation in society. The authors further advocate the need for school leaders to become involved in professional networks and communities because of the importance of informal learning that occurs in such networks. Humada-Ludeke (2013:43) promotes a *model for Professional Learning Communities (PLC)* which was adapted from the DuFour model of Professional Learning Communities (DuFour & Eaker, 1998). With this model, the author aims at building the collective capacity of school leadership through networks. One of the critical success factors of this model is providing professional development opportunities to members in the network (Humada-Ludeke, 2013:55). Through the participation in the *Professional Learning Communities (PLC)* principals have continuous learning opportunities to practice, reflect and assess their leadership skills and behaviours. The author also notes that it is important to

assess the progress of the network within the span of a predetermined conceptual framework (Humada-Ludeke, 2013:47). This perception agrees with the earlier discussion on professional development through networks (par. 2.4.2).

Neale and Cone's (2013:3-4) view is similar to the above and they are of opinion that networks should be enquiry-based with collaborative coaching to solve individual problems. They further state that by creating a sense of community, principal networks show strong trends of school changing cultures and improved student achievement through increased capacity building and collective responsibility. In a case study in the USA under principals that are part of a *Professional Learning Community (PLC)* findings revealed that principals that participated in a network not only learned about themselves as leaders but also implemented new efforts and ideas at school. They also adopted new leadership tools and facilitation techniques they learned through the network. Additionally, most principals said they became stronger and more confident leaders as a result of learning from and with other principals. Lastly, principals that were associated with networks had a higher job satisfaction than those not part of a PLC because they felt better prepared for their responsibilities and the everyday challenges (Neale & Cone, 2013:4). Networks also maintain a sense of mutual accountability for all members, which reassure and inspire principals, as they know they are working with the encouragement of their network of colleagues (Neale & Cone, 2013:5).

With the above authors' opinions in mind, it is clear that networks can have positive effects on the development of school leadership through capacity building, which in turn can have a positive impact on education in general. By working with networks of like-minded peers, principals can coach and develop each other to solve problems collectively. Networks can be used successfully in building management and leadership abilities of principals, thus be used for the professional development of educational leaders.

As was noted in this section by several authors, networks can be seen as a powerful leadership development method. In South Africa networks are already recognised for professional development purposes as a useful tool for leadership learning and leadership capacity building. Networking is studied as a component of the ACE programme for leadership development in schools in South Africa (Kiggundu & Moorosi, 2012:216; Bush *et al.*, 2011:36). The problem lies in that there is no proven or scientifically based management strategy for the implementation of the required learning network component. Each Higher Education Institution implements the school leadership and management programme (ACE) on an experimental basis. The shortcoming thereof is that there are definitive limitations concerning the development of networks for leadership development purposes. In a study on the ACE

programme, it was found that only a few networks operated successfully and also not to the extent that it could be seen as fully functional for leadership development (Kiggundu & Moorosi, 2012:222-223; Bush *et al.*, 2011:40).

With a view on the above in mind, it is clear that networks can be used for the professional development of principals in South Africa but the efforts thus far are limited. A lot has still to be done before networks can be successfully implemented as agents of school leadership and management development.

3.5.4 Synthesis

Principals' professional development has come to the fore in recent times in South Africa, especially taking into consideration that the task of a school principal has changed drastically in the past two decades. The formal training and continuous professional development of school principals in South Africa are mostly absent, although there have been advocacy for such training and development opportunities over the last four decades. Many new management, administration, financial, leadership and curricular demands are placed on principals without proper and relevant development opportunities for the new roles that they have to fulfil.

The professional development of principals in South Africa is generally seen as fragmented, lacking coherence and as being done on an *ad hoc* basis. The reason for this is because of a lack of training of school principals to a national professional standard. An absence of a professional qualification for principalship or headship, as is done in many other countries like the UK and the USA, worsen the problem.

The utilisation of networks to assist in the professional development of principals have also been highlighted recently. Leadership can be developed through collaboration and cooperation by learning from each other. This approach is already successfully used in some other countries, e.g. the UK and the USA through participation of professional learning networks. Networks in South Africa are recognised as a valuable development instrument but the inadequacies of the different programmes in which they are presented need to be corrected. This coincides with the contribution and value of this research – to provide a basis for the implementation and management of networks as part of the professional development of school principals.

Diversity, especially in a country like South Africa is a relevant topic because of the many dissimilarities amongst its people, e.g. cultural, ethnic and language differences. When taking

into account the characteristics and advantages of network participation, e.g. improved leadership abilities, contribution to learning, overall school improvement, etc. (par. 2.4.3), it can surely be used towards diversity management and the professional development of school principals in diverse contexts. Thus, networks in diverse contexts will be the focus of the next section.

3.6 NETWORKS IN DIVERSE CONTEXTS

All over the world, diversity is a controversial and sensitive issue. South Africa with its many dissimilarities and differences between people is no exception. Diversity in South Africa, with its 11 official languages, many different cultures and religions, and socio-economic discrepancies exist. All these differences cause diversity to be a relevant topic amongst people and communities in South Africa.

When looking at the South African context, it should be noted that because of the diverse situation that exists, networks must also be established taking into account these diversity issues. Hadfield and Chapman (2009:23) see diversity as one of the key aspects for effective networks. The authors view diversity as a powerful productive capacity of networks that bring disparate people and ideas together to solve complex problems and to learn from one another. D'Souza (2010:11) is also of opinion that diverse and reciprocal network relationships are beneficial towards diverse members of a network. In a study that was done by Smith (2012:126-127), the following principles came to the fore when dealing with diversity issues:

- Diversity should be managed by using the differences and commonalities between individuals to good effect and to promote the common goals of the organisation.
- When diversity is dealt with appropriately, it should lead to growth of the organisation.
- The perspectives and differences of all individuals in an organisation should be taken into account in decision-making.

In view of the above argumentation, it is clear that the establishment of networks in diverse contexts should be carefully considered (par. 3.2.1, 3.2.4 & 3.2.5). Kiggundu and Moorosi (2012:229) make the statement that networks should be underpinned by a robust framework sensitive to the needs of individual cultures, contexts and actions. People of different language groups, cultures, age, religious views, etc. should be included when establishing a network. This can be used to the advantage of the members of the network and can offer rich opportunities for learning and interpersonal connections (par. 3.4.2, 3.4.4 & 3.5.2). When

dealt with properly, many of the relevant broader school improvement issues and challenges of a specific society or community can be improved or resolved when members of a network utilise the diverse skills, qualities and attributes they bring to the network. The situation in many South African schools has changed significantly in the last two decades and many principals had to change their traditional way of doing things. Unfamiliar cultures and languages have been “put together” in schools with some negative outcomes towards quality education. Networks can be used to facilitate some of the challenges that have resulted from the changes in the education system. The following are examples of issues that can be accommodated by a diverse network:

- Language related challenges.
- Cultural and religious discrimination.
- Socio-economic background and discrepancies.
- Disabilities and barriers towards learning.
- Provision of quality equal education.
- Leadership development in diverse schools.

One of the issues that can be accommodated through networks, as presented before, is leadership development (par. 5.3). As a result of this, the professional development of principals in diverse societies can also be done through network leadership (par. 3.2.4, 3.2.5 & 3.4.1). Principals with a proven track record of good administration and leadership skills can provide the necessary leadership to other principals in similar schools. The danger exist that only some principals contribute towards the network with very little reciprocal value to them. Other principals might not have the knowledge or skills to be able to contribute much value towards the network. This could lead to mentoring rather than the true reciprocal value that a properly constituted network entails. It could also lead to challenges in sustaining the network as some principals might feel that they do not get real reciprocal value from the network. The value of network participation for each principal will depend on each individual’s mindset and attitude (par. 3.4.3). The willingness to professionally develop within a network is linked to the motivation and enthusiasm of each individual to continuously develop into a better, more improved individual and school principal.

Networks in diverse contexts can be a valuable source of educational reform and change. The difficulty lies in the establishment and successful sustainment thereof towards the benefit of all parties involved. Educational leaders in South Africa, with its diverse population and communities, can benefit from a network approach towards professional development, as it

can improve their understanding of diversity issues and assist them in managing diversity concerns (par. 3.4.1 & 3.4.3). As was stated earlier, the collaborative advantages that networks hold can be used to the benefit of educational leaders, which can eventually lead to school improvement (par. 2.4). Hence the reason for the rationale of this study: to develop a framework for regional and school-based networks for the professional development of school principals in diverse contexts (par. 1.1).

3.7 SUMMARY

The importance of leadership for the development and advancement of any organisation cannot be underestimated. Effective leadership can be seen as the driving force behind any successful organisation. To be an effective leader a certain amount of skills and attributes are necessary that needs to be acquired in order to lead and manage other individuals successfully. These leadership skills and abilities can be developed over time and are not only granted to certain people with a specific personality. Different leadership styles also need to be taken into account when managing and leading an organisation, especially as a leader is always working with other individuals who they lead.

In an education sense, leadership is just as important. Although educational leaders also need to take into account the necessary leadership skills of an organisation there are some specific leadership abilities and skills, relating to schools, which are needed by educational leaders that assist them to be able to manage schools and lead them effectively on a day to day basis.

Network leadership is a new aspect that has been used in the recent past. Network leadership is a type of leadership that is interconnected, distributed and collective. It has come to the fore to maximise leadership abilities in the form of cooperation and collaboration towards the successful resolution of new and complex problems that arose in the 21st century. Network leadership can also be used as a helpful instrument towards the development of leadership in education. Although there might be some challenges and negative aspects associated with networks in education, most of the literature that were consulted suggest that it is predominantly advantageous towards the development of educational leadership.

The professional development of principals in South Africa is a thorny and critical issue. Although much advocacy for the professionalising of principalship has been done, very little headway has been made towards the formal training and professional development of principals. Different public and private institutions have tried to present programmes towards

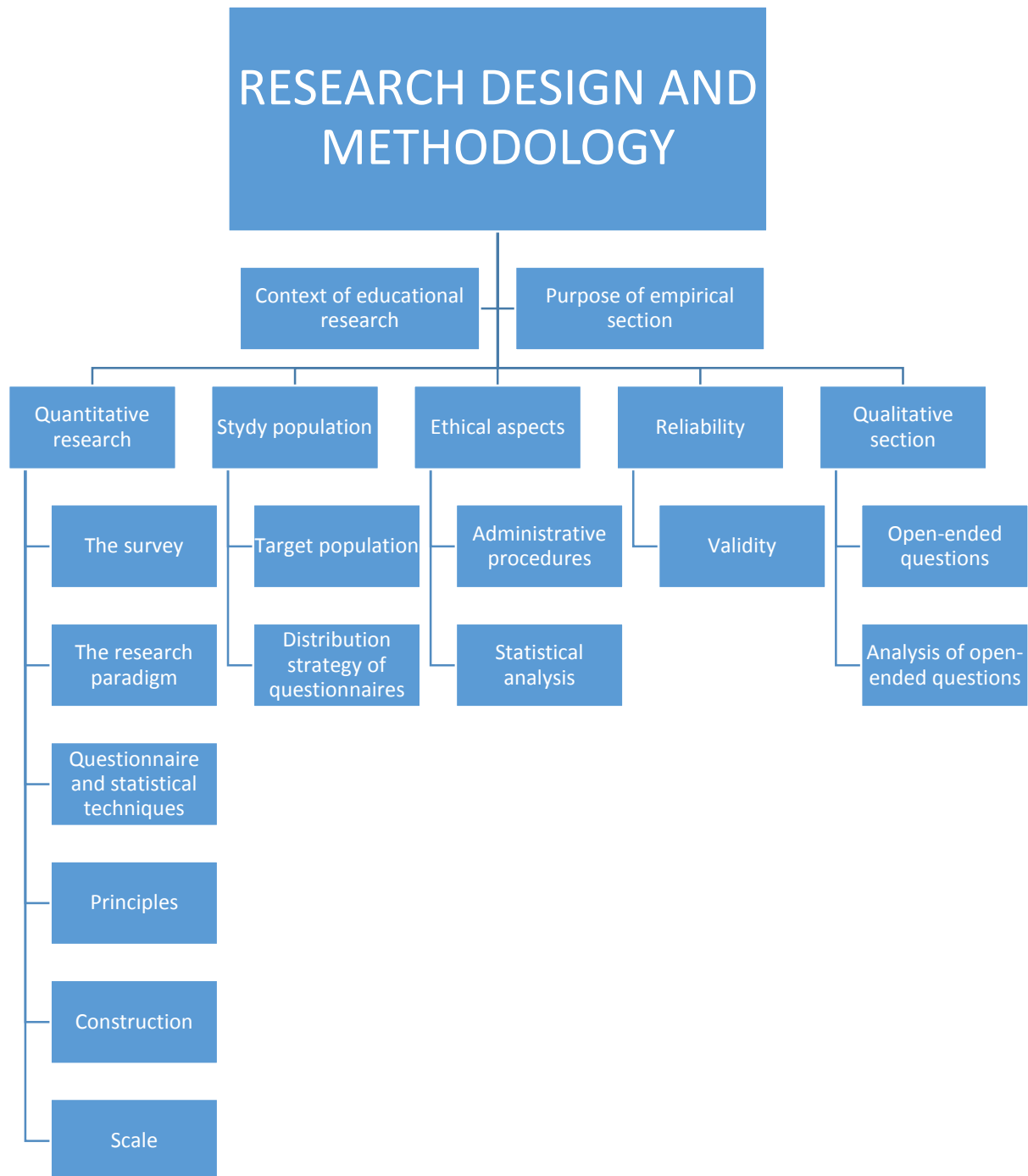
the development of principals but it is seen as fragmented and with very little coherence between service providers. One can only hope that the recently published *Policy on the South African Standard for Principals* will bring about opportunities for the formal training and development of principals in South Africa. A new way of developing principals has made progress recently. That is through the use of network leadership opportunities. It is already used with positive success in some public and private enterprises around the world. If utilised systematically and within a scientifically proven framework it can also be a valuable tool towards the professional development of principals in diverse contexts.

The utilisation of networks for the professional development of principals needs to be investigated further, especially in a South African context, as there are clear benefits for school leadership, even outside the formal training programmes offered by Higher Education Institutions. A management framework for principals, on how to develop and sustain effective networks for professional development purposes in a diverse educational context, also needs to be developed.

The literature overview in the previous chapter on networks and the functioning thereof, as well as this chapter on network leadership in relation to education established a theoretical framework for the empirical section of this research report which will subsequently be dealt with in the next chapter.

CHAPTER 4

RESEARCH DESIGN AND METHODOLOGY



4.1 INTRODUCTION

In chapters 2 and 3 the main aspects related to the focus of this research study – networks, leadership and professional development of principals, were discussed. There was an in-depth look into the functioning of networks and its influence on organisations and schools in particular. Furthermore, leadership networks was explored and its use towards the professional development of principals. The previous two chapters form a contextual and theoretical framework for this research project. Subsequently, this chapter will present a detailed description of the design and methodology of the empirical section of this research.

A report on the procedures undertaken in carrying out this study as well as shortcomings experienced during the study are presented. The questions: how, where, what and why certain procedures were followed and decisions that were made are answered in this chapter. A quantitative research design was chosen in order to address the research problem and associated research questions. In this chapter, the focus will firstly be on the context and specific aims of the research. The reasons for the choice of the measuring instrument will be explained, after which the statistical methods used for this study will be examined. Lastly, the ethical aspects and administrative procedures of this research will be discussed.

4.2 THE CONTEXT OF EDUCATIONAL RESEARCH

When undertaking educational research one needs to take certain aspects into consideration. Educational researchers need to purge or clear themselves as far as possible of biases that may impair their objectivity to the topic of inquiry (Van der Westhuizen, Potgieter & Mahlomaholo, 2009:18; Morrison, 2007:21). Engelbrecht (1991:11) believes that educational research is a collective human activity through which a particular phenomenon or problem of reality in education is objectively studied in order to get a clear understanding of the problem, or to obtain answers to the questions which is education related. Yates (2004:15-35) presents the following claims for quality educational research:

- Educational research is measured by its contribution to learning.
- Educational research must make sense to be usable by teachers (or instructors or parents or the lay reader).
- Educational research must be scientifically-based research.

This research study intends to make a valuable contribution to the study field of education, with a specific focus on leadership and the establishment of networks for the professional

development of school principals. It is with this frame of mind that this research study is undertaken.

4.3 PURPOSE OF THE EMPIRICAL SECTION

The purpose of the empirical section is to describe the research design and methodology that are used in this research report. The process of collecting reliable and valid data for the research problem and related research problems will also be considered. The research questions inquired about the nature and significance of networks and networking in an educational leadership context, to explore what professional development for school principals entails, to ascertain the management theories and strategies for effective networking in education and to conduct an investigation into the management of networks and networking by principals in diverse contexts. A management framework for regional and school-based networks as part of the professional development of principals in diverse contexts will also be developed as part of Chapter 6 of this research. The empirical section includes the following research themes to obtain the necessary data for this study:

- a description of the theoretical framework for the concept of networks and networking (par. 2.2 & 2.4);
- determining the nature and significance of networks in an educational leadership context (par. 3.4);
- an establishment and description of educational leadership and professional development for principals (par. 3.3 & 3.5);
- an investigation into the management of networks for effective networking in education (par. 2.3 & 2.4);
- determining the nature and significance of networks for the purpose of the professional development of principals in diverse contexts by means of an empirical investigation in a selection of schools (par. 5.3 & 5.4); and
- developing a framework for regional and school-based networks as part of the professional development of school principals in diverse contexts (chap. 6).

The purpose of the research is in accordance with the research problem (par. 1.1) and research aims (par. 1.3.2) and focusses on the use of networks for the professional development of principals in diverse contexts. An analysis of the related data facilitated the development of a framework for the establishment of regional and school-based networks for principals to use towards their own professional development (chap. 6).

4.4 QUANTITATIVE RESEARCH

The aim of any research design is to select and utilise the methods and techniques that the researcher considers imperative to yield a better attainment of the aims and objectives of the study being conducted (Kalenga, 2005:47). According to Creswell (2003:47), it is mandatory that a specific research problem be solved through an appropriate research methodology.

A quantitative research method was considered relevant and appropriate by the researcher for this study. According to Thiéart (2007:78) and Creswell (2005:573) quantitative research deals with statistical analysis and the description of numerical data to provide quantitative information. With quantitative research methods, statistical analysis is usually undertaken and reported for discussions of the results (AERA, 2006:37).

Quantitative research has a number of core features (Morrison, 2007:22-23):

- The relation between concept understanding, observation and measurement is central and is associated with the use of structured quantitative-based questionnaires.
- Quantitative research has to do, amongst other things, with causality and the measurement of variables.
- Findings can be generalised beyond the location of the research study.
- Educational research cannot be entirely value-free and the researcher acknowledges his role as an educator and school manager within the demarcated area of this research.
- The emphasis is on the respondent as the object of the research.

After careful consideration of the above core features of quantitative research, it was decided that it is the most relevant research method for this study. In this study, which deals with the use of networks for the professional development of school principals in diverse contexts, it is necessary to be able to establish what the respondents' conceptualisation of networks and networking are before its significance towards professional development can be determined. Furthermore, this research has to do with the use of networks for the professional development of principals, and if done correctly, it can be applied to similar situations elsewhere in society. The respondent's responses are crucial to be able to understand the concepts, as explained above. This can be done with quantitative research and statistical analysis. An *empirical survey* is selected as a research method to investigate the research questions in this research and will be discussed in the following section.

4.4.1 The survey as research method

The researcher has chosen a *survey* as it is of value for quantitative research in order to establish comparisons and statistical relationships (Thiétart, 2007:173). According to Mouton (2001:152) a survey aims to provide a broad overview of a representative sample of a large population. A survey is appropriate to obtain data on the nature and extent of networks within the study population and to determine its significance towards the professional development of principals in the area of research.

4.4.1.1 Rationale and purpose

The rationale for selecting a quantitative research design and survey methodology for this research is that the data collected by means of a structured questionnaire will enable the researcher to determine the perceptions, views and experiences of respondents in relation to specific aspects of the phenomenon under investigation and in accordance to research aims 2, 3 and 4 (par. 1.4.2).

Quantitative research is appropriate to answer questions about relationships and influences among measurable or comparable variables with the purpose of explaining, predicting, and controlling phenomena (Leedy & Ormrod, 2005:94). In order to investigate the relationship between networks and the professional development of principals, fieldwork was conducted in the education practice by means of a survey. The preceding explanations constitute the purpose and rationale for employing the survey as part of this quantitative research design.

4.4.1.2 Strengths and limitations

High measurement reliability and high construct validity of a quantitative research design can be seen as its major strength (Mouton, 2001:153). Other strengths of a quantitative research design can include, among other aspects, time saving, easy to administer and can be restricted to a reasonable size (Maree & Pietersen, 2007(a):144; Maboe, 2005:88). A lack of depth and insider perspective that leads to possible surface level analysis and data not being context-specific, can be seen as specific limitations of this type of research (Mouton, 2001:153). Other limitations can be incomplete questionnaires, low response rates and wrong interpretation by respondents (Leedy & Ormrod, 2005:185). Leedy and Ormrod (2001:223) give the following strategies that could be employed to minimise the occurrence of possible shortcomings in a survey:

- Clear and uniform instructions to respondents for the completion of questionnaires.

- Questionnaire items must be scrutinised for contents that promote or contain bias, e.g. presuppositions and prejudice.
- Observational factors that describe the contextual situation of the data need to be reported.
- Follow-up actions to non-respondents for the completion of questionnaires need to be made.

All of the above strategies were employed in order to overcome the mentioned limitations and to make sure that data were handled appropriately and correctly. These actions improved the interpretation of the questions and increased the response rate of questionnaires.

4.4.2 The research paradigm

Paradigms support the methodological predilection (Teddlie & Tashakkori, 2009:98). Prejudice and bias can be depleted and minimised when working from the perspective of a specific paradigm. An appropriate paradigm is important for any research as it assists the researcher, because it strengthens the data gathering and analysis process of the research (Nieuwenhuis, 2007:66).

For the purpose of this research, I concur with the perspective of Reason and Bradbury (2001:4) who state that a *paradigm* is a worldview, which is an overarching framework that organises our approach to being in the world. It is a set of basic assumptions, beliefs or a frame of reference about fundamental aspects of reality that explains how individuals see the world in which they live. A paradigmatic perspective is thus a way of viewing the world (Maree & Van der Westhuizen, 2007:32) and determines the researcher's approach to the investigation to be undertaken. Furthermore, a paradigm can help create a bridge between the aims and the methods the researcher accepts as a point of departure and way of doing things to achieve the intended aims. Lastly, a paradigm can be viewed as a way of linking the need for knowledge with the means of producing that knowledge (Houghton, Hunter & Meskell, 2011:1).

With the preceding as a point of departure and accounting for the nature and purpose of this research, I adopt a post-positivistic approach in which I acknowledge that value systems play an important part in the conduct of research and interpretation of data (Kumar, 2014:65; Hammersley, 2012:21; Teddlie & Tashakkori, 2009:5). The post-positivistic paradigm posits, according to Brundrett and Rhodes (2014:18, 19), that the goal of social science is to hold steadfastly to the goal of getting it right about reality, even though the authors argued that this

goal can never be fully achieved. Objectivity is thus recognised as an ideal that can never be achieved and a shared reality is rather supported with a greater awareness and acknowledgement of subjectivity (Mack, 2010:7; Maree, 2007:65; Plack, 2005:227). According to Plack (2005:227), the aim of post-positivists is to discover cause and effect relationships and to predict and control future behaviour on the basis of present behaviour. Teddlie and Tashakori (2009:69) are of the opinion that post-positivism is currently the predominant paradigm for research in the human sciences.

The post-positivistic paradigm was chosen as a research design as it is best suited for this research in an education context. From a post-positivistic perspective, social institutions have interdependent functions (networks) which, when performed to their full potential, combine to produce a healthy and evolving society (Leighton, 2013:59). Education in this context is viewed as a social activity, which aims to transform acquired knowledge into skills and values. Networks can be used as a 'vehicle' to ensure that societal knowledge is interconnected and interactive between people and institutions. This research enabled the development of a framework for the establishment of networks for the professional development of school principals in diverse contexts, which can be generalised, to a fair degree, to other areas with similar circumstances.

4.4.3 The questionnaire and statistical techniques

A questionnaire was chosen to collect data from respondents about networks, networking and the professional development of principals. A structured questionnaire was developed in order to obtain the data from the study population. A structured questionnaire usually contains specific questions that respondents have to respond to.

The questionnaire was developed in alignment with the theoretical overview (chap. 2 & 3) and the research aims (par. 1.4.2) of the study. The questionnaire was also developed by taking into consideration existing questionnaires about networks and professional development, e.g. those developed by Brown (2013), Lowrey (2013), Knobl (2013), Department of Basic Education (2012), Bush *et al.* (2011), Cone (2010), Haynes (2010), Hung and Yuen (2010), Moolenaar *et al.* (2010), Witten (2010), De Lima (2008), Matthes (2008), Mathibe (2007), Saelens (2007), Vodicka (2007), Leithwood *et al.* (2004), Moller (2004), Burstein (2001), Salazar (2001), Mullen and Kochan (2000), Holloman (1999), True (1998), Abrell (1997) and Rawles (1995). The finalisation of the questionnaire involved the collaboration of the supervisor as subject specialist as well as an expert from the Statistical Consultation Service of the university.

According to Monteith (2009(b):11) questionnaires are suitable to obtain the following kinds of information:

- Biographical information about respondents.
- Typical behaviour in relation to certain aspects.
- Opinions, beliefs and convictions about a certain topic.

All of the above were used in constructing the questionnaire. The questionnaire items (questions) were developed to include responses of biographical information as well as general information about the schools. There were also items that required respondents' perceptions, views and experiences on networks, networking and the professional development of principals. Closed-form questions were formulated for respondents to choose a particular response from a four-point Likert type scale (par. 4.6).

4.4.4 Principles for developing the questionnaire

Guiding principles or guidelines for developing a questionnaire were taken into account in compiling the questionnaire. The following principles were taken into account as suggested by Monteith (2009(b):12), Maree and Pietersen, 2007(b):158-166, Thietart (2007:174) and Leedy and Ormrod (2005:190-192):

- The principle of economy so that the questionnaire only solicit information essential to the research topic.
- The use of simple, clear and unambiguous language in order to communicate exactly what is expected from the respondent without making unwarranted assumptions.
- Question formulation was thoroughly attended to.
- Counter questions were used for consistency of responses.
- Clear and simple instructions for completion of the questionnaire.
- The questionnaire was developed to look attractive and professional in order to be clear and easy to follow.
- The theoretical framework (chap. 2 & 3) and research aims (par. 1.4.2) were considered as the parameters to develop the questionnaire.

The questionnaire was developed in different sections that grouped related question items together for it to be easy to follow. Each section was introduced by means of a phrase

presented in bold letters and numbering to indicate the start of the section. A summary of the different sections was provided at the end of the questionnaire in order to provide an overview.

4.4.5 Construction of the questionnaire

During the construction of the questionnaire, questions were carefully formulated that would maximise the cooperation of respondents. The questionnaire was made up of four sections and outlined as follows:

- **Section A: Biographical information (Questions 1 – 9.8)**

The purpose of questions in this section was to obtain biographical information about the respondents relating to the aims of the research, in order to gain background knowledge and information of the respondents. The biographical information contextualises the responses of the respondents to the questions in the other sections.

- **Section B: General information about schools (Questions 10 – 15)**

The aim of this section of the questionnaire was to collect general information about the school setting, the location and surrounding conditions of the school where the respondent is situated. This section provided valuable background information from the respondents and can be connected with responses from other sections.

- **Section C: Conceptualisation of networking (Questions 16.1 – 18.11)**

Section C of the questionnaire aims to gather information about respondents' conceptualisation and knowledge of networks and networking as well as related aspects of this phenomenon. This section gathered data about the respondent's views, association and perception of networks.

- **Section D: Indicators of networking and professional development (Questions 19.1 – 22.12)**

In this section, the extent to which networks are used for professional development purposes was investigated. It also aimed at obtaining information about the advancement and opportunities, as well as the requirements for networks in education. Lastly, it attempted to collect information on the challenges that networking has for professional development purposes.

4.4.6 Scale

Section C and D were constructed by using a Likert scale. A Likert scale provides an ordinal measure of a respondent's views (Maree & Pietersen, 2007(b):167). According to Monteith (2009(b):10), Likert scales use the method of summated ratings and are constructed by assembling a number of statements where half the responses express favourable reactions and the other half unfavourable reactions. The Likert scale is useful when data need to be evaluated or quantified in a research survey (Leedy and Ormrod, 2001:197) or when the researcher wants to measure a construct (Maree & Pietersen, 2007(b):167). Furthermore, it is also useful when behaviour, attitude or other phenomena need to be evaluated on a continuum (Leedy & Ormrod, 2005:185).

A four-point rating scale, ranging from almost no extent to great extent, was used in this study for respondents to indicate their reaction to the statements with regard to networks, leadership and professional development. The reason for choosing a four-point rating scale was to prevent neutral responses from the respondents. Thus, ensuring that respondents either indicate a supportive or non-supportive response in accordance with the different question items. The following table shows an example of the scale that was constructed for the questionnaire:

Table 4.1: Rating scale for questionnaire

Almost no extent	Little extent	Some extent	Great extent
1	2	3	4

A rating scale as used above, allows the researcher to obtain fairly accurate assessments of respondents' beliefs and opinions (Monteith, 2009(b):13). Accuracy and consistency are important requirements in research. Hence, the reliability and validity of this research will be described in the following sections.

4.5 STUDY POPULATION

According to Creswell (2005:52), a population refers to a large group of people from which trends in attitudes, opinions, behaviours or characteristics need to be identified. The population in this research refers to all the people to whom the research relates or is subject to the research interest, i.e. all principals of public schools in a predetermined education district.

4.5.1 Target population

The population may be all the individuals of a particular type. The target population consists of the principals of all the public schools which form part of the Thabo Mofutsanyana Education District (TMED) in the Free State Province of South Africa. According to the Education Management Information System (EMIS) of the Free State Department of Basic Education, there are 443 public schools in total in the mentioned district. These schools include primary, secondary, intermediate, combined and special schools (Free State Department of Education, 2013:2). A total number of 443 school principals were purposefully selected as the target population because of his/her role as education leader and manager at the school.

All school principals which fall within the Thabo Mofutsanyana Education District were selected for the study. The Department of Basic Education's district office was consulted in order to gain access to these schools for this research. Since all school principals within this district were selected for this research, sampling was not considered as part of the empirical investigation.

4.5.2 Distribution strategy of questionnaires

It was reasonably unproblematic to distribute and collect the questionnaires. The researcher made use of the following strategy to distribute the questionnaires. The researcher met with all circuit managers in the Thabo Mofutsanyana Education District (TMED) at a scheduled meeting and explained the process and purpose of the study as well as gave information about the questionnaire. Any concerns and questions of the circuit managers were dealt with accordingly. The questionnaires were then distributed by the circuit managers to their respective schools accompanied by a cover letter addressed to the principal that explains the purpose of the research as well as information on completing it. In order to increase the response rate of the questionnaires, an appeal was made to the school principals to return the completed questionnaires before or on a predetermined target date to either the researcher, a representative at the district office or to the school's allocated circuit manager from where it was collected by the researcher.

Questionnaires were designed to be completed individually and anonymously by each respondent. The questionnaires were distributed to each school principal accompanied by a letter containing information on the confidentiality agreement (Annexure B) and two cover letters (Annexures E and F) that explained the purpose and official approval (Annexures C and D) of the research as well as information on completing it.

To maximise the return of the questionnaires, respondents were reminded several times in writing, telephonically and via email messages about completing and submitting the questionnaire. Despite these efforts, some principals still didn't respond with the consequence that not all questionnaires were received back by the researcher. There were some challenges with the distribution, completion and submission process. These problems included the following:

- Respondents didn't complete and return the questionnaires within the timeframe.
- The distance of some schools from the researcher's or circuit manager's office.
- Reluctance of some circuit managers to distribute or collect questionnaires in time.
- Unwillingness by some principals to participate or cooperate with the researcher.
- Incomplete returned questionnaires.

Of all the school principals that were part of the target population, a number of 173 responded by returning the questionnaires. These respondents were used as the study population for the research.

The study population and method of distribution of the questionnaires were the focus of this part of the chapter. In the following section, there will be a discussion of the ethical considerations of the study.

4.6 ETHICAL ASPECTS

According to AERA (2006:39) reporting of research is expected to reflect the highest standards of ethical practice, both with respect to human participants and with respect to the execution of professional conduct and judgement in research. AERA (2006:39) also states that reporting should be accurate and free from falsification or fabrication of data or results; reflect the work of the researcher with appropriate attribution to others; be free of plagiarism; and be accessible to be subject to verification, replication, or further analysis. Meyer (2015:2) agrees with the above-mentioned author and states that ethics in research protects the scientific integrity of research. In adherence with the above statements and the regulations of the North-West University, all the relevant ethical aspects were accounted for in this research. The following ethical aspects in relation to this research were adhered to (Meyer, 2015:13-21; AERA, 2006:39-40; Leedy & Ormrod, 2001:107):

- Consent and approval for the research was obtained from the District Director of the Thabo Mofutsanyana Education District manager, Ms. B.S. Tshabalala, as well as Dr. M.C. Liphapang, director for planning and research of the Free State Department of Education and Dr. J.E.M. Sekolanyane, the chief financial officer of the Free State Department of Education (Annexure D).
- Informed consent was obtained from the respondents through an *Informed consent form* (Annexure E) that provided a clear description of the nature and purpose of the study.
- Any participation was strictly voluntary and no respondent was forced to complete the questionnaire.
- The right to privacy and confidentiality of respondents was assured by means of a written statement and a *confidentiality agreement* at the beginning of the questionnaire (Annexure B).
- Caution was exercised so that no respondent experienced any unnecessary stress or embarrassment during the research.
- All findings were reported in an honest and clear manner and no information was withheld that could have an influence on the results or could have resulted in bias.
- Where possible, feedback was made available to participants and other role players on the outcome of the research.

Ethical aspects of research were taken into account as the highest priority whilst conducting the research. All participants' rights and privacy were protected and unwanted interruption in their personal or professional lives were minimised. Anonymity and confidentiality were guaranteed at all times and respondents had the opportunity not to participate in the study or to withdraw at any time from this research. In order to avoid any misunderstanding of their role in the research as well as the purpose of the research, communication was done in writing - clearly and without any deception (Annexures B, E and F). Therefore, all the respondents' anonymity and confidentiality were guaranteed at all times. The researcher also made sure that all the respondents' rights and privacy were protected during the study. The necessary ethical clearance was given to the researcher by the North-West University's (NWU) Ethical Committee (Annexure G). The NWU Ethical Committee made sure that the research was done within the ethical measures set out by the university's ethical code.

4.7 ADMINISTRATIVE PROCEDURES

Permission to conduct research in all the public schools in the Thabo Mofutsanyana Education District (TMED) in the Free State Province was requested from the District Director, Ms. B.S. Tshabalala as well as Dr. M.C. Liphapang, director for planning and research of the Free State Department of Education and Dr. J.E.M. Sekolanyane, the chief financial officer of the Free State Department of Education. A copy of the questionnaire, as well as other supporting documentation, e.g. confidentiality agreement, permission letter and consent form, were also included with the letter that requested permission from the various role players. A *consent form, permission form and confidentiality agreement* (Annexures B, E and F) in which the confidentiality, nature and purpose of the research were explained were presented with each questionnaire. Clear instructions on how to complete the questionnaire were provided with each questionnaire.

The returned questionnaires were collected at the researcher's office, from the district office or from the respective circuit managers' office. It was returned to the researcher in envelopes that were provided to circuit managers. After the collection, the questionnaires were then submitted to the Statistical Consultation Services (SCS) of the North West University, Potchefstroom Campus for capturing and processing of the gathered data. The statistical calculations were done by using appropriate statistical software programmes (SAS, 2015; SPSS, 2015).

4.8 RELIABILITY

Reliability refers to the accuracy of the data that are gathered in relation to the research (Leedy & Ormrod, 2001:31). According to Anastasi and Urbina (1997:84) the reliability of a test refers to the consistency of scores obtained by the same persons when they are re-examined with the same test on different occasions, or with different sets of equivalent items, or under other variable examining conditions. Maree and Pietersen (2007(a):147) state that reliability has to do with the consistency or repeatability of a measuring instrument. Thus, the reliability of measurement is the extent to which the measurement yields consistent results when the characteristics being measured have not changed over time and are presented in different forms or situations and by different researchers (Ellis, 2009:13; Monteith, 2009(b):5; Leedy & Ormrod, 2005:93). The goal of developing reliability measures is to minimise the influence of chance or other variables unrelated to the intent of the measure (Monteith, 2009(b):5). The theoretical framework based on the literature study (chap. 2 & 3) served as the basis for constructing the questionnaire. These measures increased the reliability and accuracy of the

questionnaire. Subsequently, these measures also increased the consistency of the research project.

The Cronbach Alpha coefficient is a way of measuring the internal consistency or reliability of the results (Maree & Pietersen, 2007(d):216). Cronbach Alpha is a coefficient that measures the internal coherence of a scale that has been constructed from a group of items (Drucker-Goddard, Ehlinger, & Grenier, 2001:203). Monteith, (2009(b):7) is of opinion that the Cronbach Alpha coefficient provides a reliable estimate for items not scored dichotomously, but for a measure that is composed of items with values other than 0 and 1, thus for items with multiple scores such as attitude scales where, for example, item values may range from one through five or seven. The closer the values of the score is to 1 the stronger the internal coherence or consistency of the scale (Sekaran & Bougie, 2010:324). Values equal to 0.7 and above are generally accepted as being reliable (Drucker-Godard *et al.*, 2001:203). Items that are homogenous will result in a higher reliability estimate.

A Cronbach Alpha coefficient for the constructs (for each group of questions) of the questionnaire was calculated in order to illustrate the internal consistency for each subsection. In the different subsections the general coefficient was higher than the acceptable, which is 0.7 and above (par. 5.2.1.2; table 5.2).

In order to ensure that the different sections of the questionnaire as well as the formulation of the questions were feasible, reasonable and understandable, an explorative study was done in two schools, which did not form part of the survey area. The main objective of the explorative study was to increase the reliability and validity of the study. A specific aim was to test whether respondents interpret the questions correctly and give suitable responses (Maree & Pietersen, 2007(b):157). The respondents were requested to comment critically on the relevance of questions and the overall format and construction of the questionnaire by means of recommendations and suggestions. This specific questionnaire also included a section for comments and recommendations for improving the formulation. The feedback were thoughtfully examined and appropriately applied. The questionnaire was adjusted accordingly. Clarity and unambiguousness were also ensured to eradicate any vagueness, uncertainty or indecision with the respondents.

4.9 VALIDITY

According to Anastasi and Urbina (1997:84) validity of a test concerns what the test measures and how well it does so. Therefore, validity is the extent to which a measuring instrument

measures what it is actually intended to measure (Leedy & Ormrod, 2005:92). Validity also refers to the accuracy, meaningfulness and credibility of a research project to allow the researcher to draw meaningful and defensible conclusions from the captured data (Leedy & Ormrod, 2005:97). Monteith (2009(b):2) states that validity is a judgement of appropriateness of a measure for specific inferences or decisions that result from the score generated.

As was noted in the previous paragraph, internal validity (*credibility*) allows the researcher to draw valid conclusions from the research and ensures that the questionnaire measures what it is supposed to measure (Monteith, 2009(b):5; Maree & Van der Westhuizen, 2007:37). According to Nunnally and Bernstein (1994:84), validity is a matter of degree rather than an all or none property. Furthermore, the mentioned authors are of opinion that validation is an unending process.

Linn (1989) is of opinion that, although non-scientific, it is necessary for a questionnaire to have face validity, because without it cooperation and motivation, as well as user and public acceptance, could present hindrances or stumbling blocks in data measurement. The internal validity as well as face validity for this research was secured through means of reviews by experienced researchers and an exploratory survey. This was done to verify and adjust the different questionnaire items so that the questionnaire measures what it is supposed to measure. The Ethics Committee of the North-West University approved the research in order to make sure that it complies with the university's ethical code. The research study's supervisor and statistical expert were also involved in the finalisation of the questionnaire (par. 4.4.3).

Content validity addresses the extent to which the instrument covers the complete content of what is to be measured (Maree & Pietersen, 2007(d):217). The content validity was assured by means of the theoretical framework as outlined in chapters 2 and 3 of the research. Furthermore, a critical, objective reader was also asked to authenticate the information as it was presented by the researcher.

The construct validity refers to the extent to which a questionnaire or test measures a theoretical concept or trait (Smith, 2012:81). This type of validity is needed for standardisation and has to do with how well the constructs are measured by different groups of related items (Maree & Pietersen, 2007(d):217). The construct validity for this research study was guaranteed by means of confirmatory factor analyses (par. 5.2.1; table 5.1).

4.10 STATISTICAL ANALYSIS

Descriptive statistical techniques were applied to organise, analyse and interpret data. Measurements were recorded as scores on a four-point Likert scale (par. 4.6). Data obtained from the respondents was statistically interpreted and analysed in collaboration with the Statistical Consultation Services of the North-West University, Potchefstroom Campus. The statistical analysis in this research was done in three stages:

- The initial stage ensures the reliability of subtests (constructs) by calculating the Cronbach Alpha coefficient for each construct while the construct validity of the subtests was assured by performing a confirmatory factor analyses (Nunnally & Bernstein, 1994). To determine whether a factor analysis may be appropriate, Kaiser's Measure of Sample Adequacy (MSA), which gives an indication of the inter-correlations among variables, were computed for each confirmatory factor (Tabachnick & Fidell, 2001). Guidelines according to Hair, Andersen, Tatham and Black (1998) were used to confirm that the MSA's were appropriate.
- During the second stage, descriptive statistics such as means and standard deviations were calculated. The mean was applied to describe the distribution of responses and to identify characteristic values. The spread of the distribution (e.g. the standard deviation) was described by numerical variances to indicate the extent to which data measures tend to cluster close together or are widely spread over the range of values (Maree, 2009:188).
- In the final stage, interpretation of the results was based on Cohen's effect sizes (Cohen, 1988:20-27). Effect sizes (d-values) were calculated to determine if practical significant differences exist between groups for different aspects of the socio-demographic variables. Since the study population was an availability sample, the interpretation of results was not based on p-values but on effect sizes. Effect sizes indicate the practical significance, specifically the extent to which a difference is large enough to have an effect in practice (Pietersen & Maree, 2007(c):210; Ellis & Steyn, 2003:1). The following guidelines were used for d-values regarding differences between means: small effect: $d = |0.2|$; medium effect (noticeable with the naked eye): $d = |0.5|$; large effect (practically significant): $d \geq |0.8|$ (Cohen, 1988). P-values were reported for completeness sake on a 0.05 statistically significance level (Ellis & Steyn, 2003:1). In order to obtain these p-values, the following inferential statistical techniques were used: t-tests for

independent groups where two groups were involved and analysis of variances (ANOVA) for more than two groups. Where more than two groups were involved, one-way analysis of variances were used to determine if differences between the means of groups in general exist. To determine between which specific groups the differences occurred, Tukey's post hoc tests were done (Abdi & Williams, 2010:1; Pietersen & Maree, 2007:230).

4.11 QUALITATIVE SECTION

A concise qualitative section was, in addition to the quantitative research, also included. The rationale behind the decision to add two open qualitative questions for the purpose of this research was to (Anderson, 2004:213):

- elucidate more comprehensive responses,
- provide additional information,
- allow for unexpected developments,
- clarify underlying logic, and to
- explain distinctive circumstances, approaches, opinions and practices of different respondents.

Quantitative and qualitative methods of measurement and the accompanying analyses are compatible and complementary to each other in a research design and are considered as an appropriate measure to meet the particular demands of the nature of the research in its full complexity (De Vos *et al.*, 2005:359, 360). The qualitative method for this research involves the inclusion of supplementary open-ended questions to some of the structured scale questions of the questionnaire. As was mentioned earlier, a post-positivistic approach is adopted for this particular research study. In taking a post-positivistic stance, I acknowledge that value systems play an important part in the conduct of the research and interpretation of the data (par. 4.4.2). By taking into account the qualitative data, respondents' value systems and opinions towards networking and professional development can be recognised and appreciated. For this reason, it was decided to supplement the questionnaire with a qualitative section.

4.11.1 Open-ended questions

Open-ended questions were integrated as an important part of the questionnaire, because the closed-ended structure of questions cannot probe and elaborate sufficiently into the

respondents' views, opinions and experiences. Open-ended questions obtain further responses that are embedded in the unique words and expressions of the respondents (Gall, Borg & Gall, 1996:289, 290) and reveal the respondents' thinking processes (Maree & Pietersen, 2007(b):161). The purpose of the empirical research is to examine networks and its relation and usability towards the professional development of school principals. This empirical research supports the incorporation of open-ended questions to discover the respondents' logic, reasoning and frame of reference. Open-ended questions also permit honesty, creativity, self-expression and the provision of richness of detail (Maree & Pietersen, 2007(b):161; Neuman, 1997:241). Neuman (1997:241) further supports the inclusion of closed and open-form questions to reduce the disadvantages of the question form as measuring instrument.

4.11.2 Analysis of open-ended questions

The analysis of responses from open-ended questions in the questionnaire was done according to a qualitative response analysis procedure as recommended by De Vos *et al.* (2005:334) and Gall *et al.* (1996:322). The analysis procedure entails the following:

- Managing and organising of data.
- Evaluation of responses.
- Generating categories, themes and patterns.
- Searching for alternative explanations.
- Writing the report.

The process of analysis is rather like a circular approach than a fixed linear approach, which implies that the above-mentioned procedures are viewed as guidelines and not as rigid prescriptions (De Vos *et al.*, 2005:334). For the purpose of this research, respondents' views were taken into account in order to understand their way of thinking and to appreciate and value their beliefs on networking and professional development. The information obtained through qualitative data helped to improve the researcher's perception of the respondents' opinion about the related topic.

4.12 SUMMARY

This chapter outlined the design of the empirical section on the networks and its value towards professional development of school principals. The context of educational research as well as the research aims were highlighted for this research project.

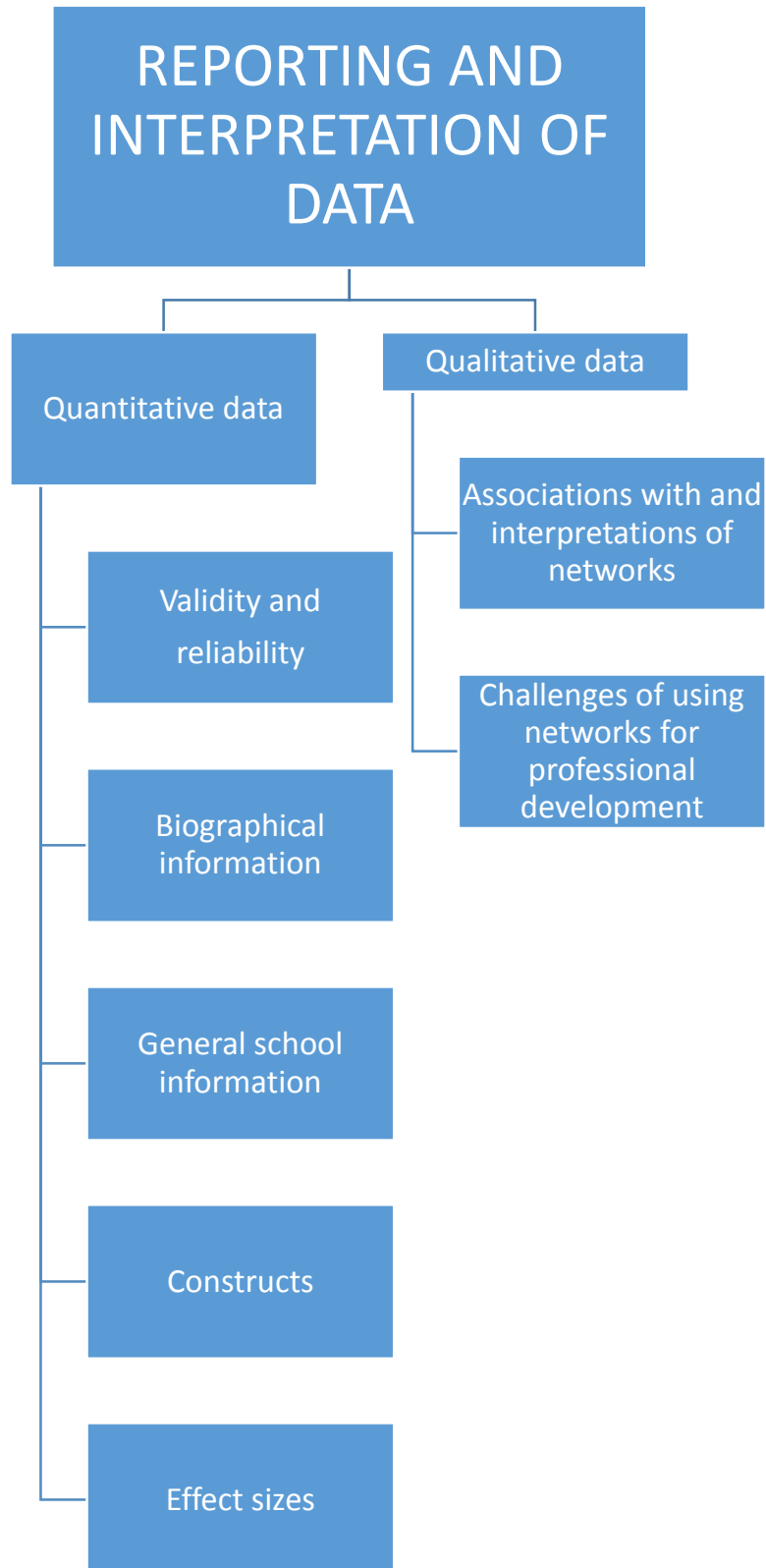
A quantitative research design, specifically a survey was selected as the appropriate method to gather information for the research. This was done within the framework of the post-positivistic paradigm. It was followed by a discussion on the choice of questionnaire and means of obtaining the data for the study. This section also included the principles, design and format of the questionnaire, aspects of reliability and validity, as well as the basis on which the statistical analysis of the research project will be conducted. A qualitative research section was also incorporated into the questionnaire to make sure that the respondents' own ideas, thoughts, views and perspectives on networks and its value towards professional development and school improvement could be included and utilised in the data collecting process.

The following section dealt with the study population and the sampling procedure as well as the method in which the questionnaires were distributed and the responses that were received from the respondents. The chapter concluded with a look into the ethical considerations pertaining to this study and the practical, administrative procedures that were followed in conducting the research.

This chapter dealt with the methodology of the research project. In the following chapter, a discussion of the statistical information that emerged from the questionnaires that were returned by respondents will be compiled. Subsequently, the data obtained through the questionnaires, will be analysed and interpreted in correlation with the topic of the research project, i.e. the establishment of networks towards the professional development of school principals.

CHAPTER 5

REPORTING AND INTERPRETATION OF DATA



5.1 INTRODUCTION

The aim of this chapter is to analyse and interpret the data collected by means of the questionnaire as discussed in chapter 4 (par. 4.4). In the first section of this chapter, the reliability and validity are discussed. The following two sections involve the interpretation of data on the biographical information of respondents and the general information about the schools that the questionnaire was distributed to. These sections provide the necessary background information about respondents as well as the environment the school is situated in.

The different items (questions of the questionnaire) were analysed to identify constructs in relation to the research theme. Constructs were also ranked to determine their importance in the research. There was also a calculation of the effects sizes for each construct in order to find out if there were any differences of practical significance between the means of different groups.

Two open-ended questions also formed part of the questionnaire and were analysed separately using qualitative methodology. The chapter concludes with a summary on the contents of the chapter.

5.2 RESULTS: QUANTITATIVE DATA

Descriptive statistics were used to understand on what level the respondents considered each of the items. All the items of each question in sections A and B were discussed to be able to gain biographical, environmental and background knowledge of the respondents (par. 5.3.1 & 5.3.2). In sections C and D, four point Likert scales were used for the items to determine the perceptions that respondents had in relation to the concept of networking. Please note that because the midpoint of a 4 point Likert scale is 2.5, any mean calculated in this study will be regarded as low if smaller than 2.5 and as high when larger than 2.5. The interpretation of whether a specific perception, indicated on the 4 point Likert scale, was low or high, values from the recorded responses was done according to the midpoint of 2.5 on the scale stated in par. 4.4.6. Individual scores, which points to a relative position in the data distribution, were examined to indicate how far the individual score is either below or above the midpoint of a 4 point Likert scale, namely 2.5. Each item of sections C and D was examined to determine if the items constitute a theme-related construct by means of the Cronbach Alpha coefficient and a confirmatory factor analysis (par. 5.2.1.1 & 5.2.1.2). Not all the items of each question in sections C and D were individually discussed, because it was categorised into constructs. Constructs were derived from the data that was presented by the questionnaires and will be

interpreted in par. 5.2.4. The information that resulted from the different constructs will be discussed in sections 5.2.4 and 5.2.5 of this chapter.

Quantitative data collected through this research regarding regional and school-based networks and professional development of school principals in diverse contexts are presented and interpreted in the following sections.

5.2.1 Validity and reliability

The validity and reliability of the questionnaire as well as its relevance and consistency towards the research problem will be discussed in this section.

5.2.1.1 Validity

Validity is the extent to which a measuring instrument measures what it is actually intended to measure (Leedy & Ormrod, 2005:92). The validity of a questionnaire relates to what it measures and how well it does so (Anastasi & Urbina, 1997:113). It has a high level of validity if it measures what it is supposed to measure (par. 4.9).

A construct, concept or a theoretical construction is aimed at organising and making sense of our environment. The main purpose is to use observed variables to describe a construct or concept, which is an unobservable variable (Pedhazur & Schmelkin, 1991:86). Construct validity is the extent to which a questionnaire or test measures a theoretical concept or trait.

A confirmatory factor analysis was used to verify the construct validity for each subsection of the questionnaire. To determine whether a factor analysis may be appropriate, Kaiser's measure of sample adequacy (MSA) was computed for each confirmatory factor. Kaiser's measure of sample adequacy (MSA) gives an indication of the intercorrelations among variables (par. 4.10). An MSA of above 0.5 is an indication that the factor analysis is appropriate (Tabachnick & Fidell, 2001). If the variance retained by the factor analysis was more than 50%, it was considered sufficient. The final communalities indicate the range of low and high contributions that each variable is making to the specific factor. The results of the factor analysis are presented in table 5.1 below.

Table 5.1: Confirmatory factor analysis

Construct	N	MSA	No. of factors retained	Variance retained (%)	Final communalities varies between
Concept view	87	0.89	1	61.52	0.39 and 0.77
Concept association	158	0.91	1	68.70	0.57 and 0.76
Concept perception	157	0.94	1	69.60	0.58 and 0.79
Advancement of networking	153	0.89	2	66.88	0.44 and 0.87
Opportunities for networking	163	0.86	1	70.25	0.61 and 0.79
Requirements for establishing networks	161	0.92	1	69.68	0.43 and 0.82
Challenges for networking	115	0.81	3	69.01	0.63 and 0.74

More than one factor were retained at some of the sections. Two factors were retained for the construct *Advancement of networking* and three factors for the construct *Challenges for networking*. Thus, a decision was made to redefine and rename the sections where more than one construct was retained. Construct validity was confirmed by means of factor analyses, which were conducted on all the subtests as well as by redefining the sections into different constructs. The significance of the above confirmatory factor analysis is that it demonstrates a high level of construct validity of the different items in being homogenous in relation to each other. It also illustrates that the questionnaire used to acquire the data, measured what it was supposed to measure.

5.2.1.2 Reliability

The reliability of a test refers to the consistency of scores obtained by the same respondents when they are addressed with the same question items, but on different occasions, or under other variable conditions (Anastasi & Urbina, 1997:84). Reliability refers to the accuracy of the data that are gathered in relation to the research (Leedy & Ormrod, 2001:31).

The Cronbach Alpha coefficient is a method of measuring the reliability of items in relation to the constructs of a questionnaire. Interrelated items may be summed to obtain an overall score for each participant. Cronbach's Alpha coefficient estimates the reliability of this type of scale by determining the internal consistency of the test or the average correlation of items within the test (Maree & Pietersen, 2007:216; Nunnally, 1978:295). Values equal to 0.7 and

above are generally accepted as being reliable because of the diversity of the constructs being measured (Field, 2009:675; Drucker-Godard *et al.*, 2001:203). Table 5.2 illustrates the Cronbach alpha values for each construct of the questionnaire in relation to its question items.

Table 5.2: Cronbach Alpha coefficients for constructs of the questionnaire

Construct	N	Cronbach alpha coefficient
Concept view (Items 16.1 – 16.9)	87	0.92
Concept association (Items 17.1 – 17.9)	158	0.93
Concept perception (Items 18.1 – 18.9)	157	0.95
Professional advancement of networking (Items 19.1 – 19.7)	153	0.91
Non-professional advancement of networking (Items 19.8 – 19.9)	167	0.68
Opportunities for networking (Items 20.1 – 20.6)	163	0.91
Requirements for establishing networks (Items 21.1 – 21.9)	161	0.94
Diversity related challenges for networking (Items 22.1 – 22.4)	115	0.83
Physical challenges for networking (Items 22.5 – 22.8)	153	0.78
Personal challenges for networking (Items 22.9 – 22.12)	158	0.84

The N-values of the different constructs varied because of missing values in the responses from the questionnaires. The individual constructs of the questionnaire yielded a Cronbach Alpha with high scores. The general Cronbach Alpha coefficient for each construct was high, except for one construct, (Non-professional advancement of networking) that yielded a score of 0.68. Reliability estimates of 0.60 and higher are regarded as acceptable for the constructs (Maree & Pietersen, 2007:216). The reliability estimates indicate a high level of reliability for each construct.

5.2.2 Section A: Biographical information

Section A, items 1-9, aimed at gathering information of a biographical nature about the respondents and also to be able to associate their views with aspects of networking and professional development (par. 5.3.3 & 5.5.4). The study population consisted of 173 respondents that returned the questionnaires (par. 4.5.2). Not all the information on each questionnaire was completed in full, hence the difference in total responses (N) at each question item. A possible reason for this can be that the question item was not fully understood, therefore the respondent preferred not to answer it. Table 5.3 summarises the responses of section A, items 1-9.

Table 5.3: Biographical information

Item no.	Question	N	Frequency	Percentage (%)
1	Gender	173		
	Male		100	57.80
	Female		73	42.20
2	Current position	172		
	Principal		154	89.53
	Acting principal		18	10.47
3	Years of experience in position	167		
	1-3 years		47	28.14
	4-6 years		24	14.37
	7-10 years		12	7.19
	11+ years		84	50.30
4	Age group in years	173		
	21-30		1	0.58
	31-40		6	3.47
	41-50		67	38.73
	51-60		86	49.71
	60+		13	7.51
5	Population group	173		
	Black		142	82.08
	White		29	16.76
	Coloured		2	1.16
	Asian		0	0.00
	Other		0	0.00
6	Home language	173		
	English		1	0.58
	Sesotho		117	67.63
	Afrikaans		31	17.92
	IsiZulu		20	11.56
	Other		4	2.31

(Table 5.3 continues on the following page)

Table 5.3: Biographical information (cont)

Item no.	Question	N	Frequency	Percentage (%)
7	Level of education / training	172		
	High school education		3	1.74
	Tertiary education: Certificate		2	1.16
	Tertiary education: Diploma		40	23.26
	Tertiary education: Degree		34	19.77
	Tertiary education: Hons		80	46.51
	Tertiary education: Masters		12	6.98
	Tertiary education: PhD		1	0.58
8	Attending professional development activities	158		
	Yes, recently		113	71.52
	No		16	10.13
	Yes, but not recently		29	18.35

Question 9 requires from the respondents to indicate the applicable types of professional development activities that they make use of. The data for question 9 is presented below:

9	Types of professional development activities	N	Yes	%	No	%
9.1	Integrated Quality Management Systems (IQMS)	166	162	97.59	4	2.41
9.2	Continuing Professional Teacher Development Management System (SACE)	143	131	91.61	12	8.39
9.3	Further studies	122	66	54.10	56	45.90
9.4	Workshops	167	166	99.40	1	0.60
9.5	Meetings	165	165	100	0	0.00
9.6	Conferences	135	106	78.52	29	21.48
9.7	Seminars	120	79	65.83	41	34.17
9.8	On-line short courses	101	24	23.76	77	76.24
9.9	Other	56	16	28.57	40	71.43

N = Total response; Yes = Total 'yes' responses; No = Total 'no' responses; % = Percentage of total responses

An analysis and interpretation of the biographical data according to table 5.3 are discussed in the following section.

- **Gender** (Question 1)

There is an even representation of male and female respondents, with male respondents being 57.80% and female respondents 42.20%. This confirms the fact and reality that there are more males that are in principal positions than females in the South African education system. The different responses from males and females for each construct were analysed to see if there is any significant differences in the responses. Based on this data, it is accepted for this research that the respondents were satisfactorily represented in relation to gender.

- **Current position** (Question 2)

This question illustrates that most respondents (89.53%) are permanently appointed principals at schools. However, the 10.47% of principals who are in an acting capacity is evidence of the number of principals that are leaving the profession as well as the time-consuming appointment processes of the education department (Wills, 2015:3). In terms of this study, the case might be that acting principals are not likely to participate fully in networks as they are unsure about their own situation at the school, e.g. awaiting permanent appointment as principal or only in a temporary acting capacity, etc. The results for this question item are acceptable, because of the high number of permanently appointed principals.

- **Years of experience in position** (Question 3)

The results in this question revealed that more than half of the respondents have more than 11 years of experience as a school principal. This implies that the data that was collected from the respondents is representative of experienced principals, which strengthens the reliability of the responses. It is also interesting to note that 28.14% of respondents are fairly new in the profession with less than 3 years of experience. These figures correlate with the age of the respondents as indicated in question 4. Experience as a principal was also investigated for variations between the different constructs of the research study in order to determine if there were any differences in practice between responses.

- **Age group in years** (Question 4)

The results demonstrate that most of the respondents (57.22%) were older than 51 years of age. This implies that the responses from the respondents are not only representative of professional experience, but also of life experience. The

reason for this can be that there is a growing concern with an ageing workforce in relation to education. Recent research indicated that 33% of South African school principals are over the age of 55 years and have been in the same position for years (Marais, 2016:11; Wills, 2015:2). The relative high number of respondents that are between 31 and 50 years also correlate with the high number of less experienced principals, as explained in question 3.

- **Population group** (Question 5)

The different population groupings of the area in which the survey was conducted, is well represented in the results. From the responses, 82.08% indicated that they belong to the black population group and 16.76% indicated that they are from the white population group. These figures concur to a large extent with the population compilation of the area, the Free State province and South Africa as a country. Figures from the 2011 census, that was done by Statistics South Africa, presented that 79,2% of South Africa's population are black people and 9% are white (South Africa, 2013:5). These results are thus accepted as representative of the South African population for this study.

- **Home language** (Question 6)

The results show that two of the official languages of the province and specifically the area, in which the survey was done, Sesotho (67.63%) and Afrikaans (17.92%), are well represented. IsiZulu was also indicated by 11.56% of the respondents as being their home language. The reason for this particular response might be because of the area of the province's proximity to the KwaZulu-Natal province, which have isiZulu as one of its official languages (South Africa, 2013:9). English as home language is rarely used as only 1 respondent indicated it as his/her home language. Only two other languages were specified in the questionnaire by respondents, namely 1 isiXhosa and 1 Northern Sotho home language speaker. The results from this question are in line with those of the previous question (Question 5).

- **Level of education / training** (Question 7)

This question produced a whole range of results. Most of the respondents that participated in the survey have a tertiary qualification. The reason for this is because all respondents were principals, who should have a formal tertiary and professional qualification in order to be working in the teaching profession. What is interesting from the data, is that more than half the respondents hold a post-

graduate qualification, i.e. honours, masters or doctoral degrees. These results prove that school principals see personal and professional development as an important element of their lives.

- **Attending professional development activities** (Question 8)

Most respondents (71.52%) indicated that they have attended some sort of professional development activities during the past 2 years. This is an indication of the high regard that principals hold to develop themselves. However, it is also a concern that almost a third of respondents either has not recently attended professional development activities or have never engaged in any form of professional development before. The results in this question compare, to a large extent, with question 7.

- **Types of professional development activities** (Question 9)

For this question respondents were asked to mark all the applicable professional development activities they engaged in. Most of the principals indicated that they make use of the education department's compulsory developmental activities, i.e. IQMS, CPTD, workshops and meetings. As was discussed in the literature chapters, the value and merit of these activities is uncertain (par. 2.4.2.1, 2.4.2.2, 3.5.1 & 3.5.2). A large number of respondents also indicated that they attend conferences (78.52%) and seminars (65.83%) for their own professional development. Further studies were also used by more than half the principals, which compares well with the data in question 7. A total of 28.57% of respondents use other methods for professional development. These methods include short courses, induction programmes, contact sessions, communication with others and self-study. The significance of the results in this question, is that it is clear that most principals utilise a variety of professional development activities. This may be because principals feel the need to develop themselves due to a lack of structured support towards professional development (par. 3.5.2).

In this section biographical information of the respondents were scrutinised to acquire some background information about the respondents. In the following section, the focus will be on the general information about the school in which the respondents are appointed.

5.2.3 Section B: General information about the school

The aim of section B, items 10-15, was to collect general information about the school's location and surrounding conditions of the school community in order to obtain background information about the respondents. Table 5.4 summarises the responses of items 10-15.

Table 5.4: General information about the school

Item no.	Question	N	Frequency	Percentage (%)
10	Number of learners	170		
	<100		52	30.59
	101-300		26	15.29
	301-500		20	11.76
	501-700		15	8.82
	701-900		19	11.18
	901-1100		19	11.18
	1101+		19	11.18
11	Medium of instruction	140		
	Afrikaans (Afr.)		6	4.29
	English (Eng.)		83	59.29
	Sesotho (Ses.)		12	8.57
	IsiZulu		2	1.43
	Dual medium (Afr./Eng.)		4	2.86
	Dual medium (Eng./Ses.)		26	18.57
	Parallel medium (Afr./Eng.)		2	1.43
	Parallel medium (Eng./Ses.)		5	3.57
	Other		0	0.00
12	Number of educators	173		
	1-5		59	34.10
	6-15		34	19.65
	16-30		48	27.75
	31-45		28	16.18
	46+		4	2.31
13	Socio-economic status of the area around the school	169		
	High income		3	1.78
	Middle income		13	7.69
	Low income		153	90.53
14	Type of school	171		
	Primary school		105	61.40
	Secondary school		24	14.04
	Combined school		17	9.94
	Intermediate school		21	12.28
	Foundation phase school		1	0.58
	Special school		1	0.58
	Other		2	1.17

(Table 5.4 continues on the following page)

Table 5.4: General information about the school (cont)

Item no.	Question	N	Frequency	Percentage (%)
15	Kind of school according to the area in which situated	170		
	Town school		27	15.88
	Township school		64	37.65
	Farm school		61	35.88
	Other		18	10.59

The general information about the schools was analysed and interpreted according to table 5.4 and is discussed in the following paragraphs.

- **Number of learners** (Question 10)

The results for this question show that more than 30% of schools have a number of less than 100 learners. The area in which the survey was conducted, is notably a rural area with many farm schools, which usually have a smaller number of learners, which explains this phenomenon. Almost a third of the respondents indicated that they are part of schools that have a total number of more than 700 learners, which can be seen as larger schools. The reason for this can be the growing number of people and school children in townships and the lack of availability of schools in some areas, hence the large schools in a rural environment. Thus, the responses are representative of smaller as well as larger schools.

- **Medium of instruction** (Question 11)

The medium of instruction that most respondents indicated were English and Sesotho. Taking into account that almost 68% of respondents indicated Sesotho as their home language (question 6) and only 8.57% of schools use Sesotho as a medium of instruction, highlights the challenge related to home language education. The trend, in South Africa, to let children undergo schooling in English can also be seen in these results, as almost 60% of schools use English as medium of instruction, while only 0.58% of respondents make use of English as a home language. There is also quite a significant difference between the language of instruction (4.29%) and home language (17.92%) for Afrikaans (also compare question 6). This can be seen as one of the problematic areas in the South African education system – principals, teachers and learners that are not working and learning in their home language.

- **Number of educators** (Question 12)

The results for this question show a relationship with the results of question 10 and confirm that most schools in the area are either small, with less than 5 educators, or larger, with more than 16 educators. The schools that participated in this research were fairly representative of small as well as larger schools. The post provisioning for each school is in line with the number of learners, as was indicated in question 10.

- **Socio-economic status of the area around the school** (Question 13)

The respondents indicated that the vast majority of the schools are in a low income area (90.53%). Only three respondents indicated that the school is situated in a high income area. This question can be seen as being relatively subjective as opinions may differ between respondents as to what the different socio-economic areas might imply. The results for this question can be attributed to the fact that the survey was done in a rural area of South Africa, which is usually associated with socio-economic challenges.

- **Type of school** (Question 14)

Most schools in the survey were indicated as primary schools (61.40%). Overall, there are more primary than secondary schools in South Africa. Farm schools are likely to only present primary education, thus the reasons for the many primary schools in the survey. On the other hand, it is typical of secondary schools to have a larger number of learners, thus fewer schools, but with more learners (compare question 10). Combined schools and intermediate schools also yielded a fair number of schools in the survey. This is also a typical phenomenon of the study area. The variety of schools, as were indicated by the respondents, confirm that the data is representative of all school types.

- **Kind of school according to the area in which it is situated** (Question 15)

Township² schools (37.65%) and farm schools (35.88%) constitute the majority of schools in the survey area, followed by town schools (15.88%). The distribution of schools is typical of a rural environment where one of the main economic

² A township is a residential area, which was developed in South Africa during the Apartheid era (before 1994) next to a formal town, where black people used to settle, because they were not allowed to live in a formal town area; it is also called a twin town.

activities is agricultural. A number of respondents also indicated that they are part of other kinds of schools in the area. The responses include (total number of responses in brackets) rural schools (7), semi-rural school (1) and village school (1). For the purpose of this research, it can be deduced that all the types of schools were well represented in the survey.

In this section, there was a discussion of the general information about the schools in which respondents are appointed to gain background information of the surrounding conditions. The next sections focus on the constructs for each question item.

5.2.4 Constructs

The mean for the construct for each question item was calculated to find out what the level of validity and reliability for each construct is. Table 5.5 below shows the means of the constructs after they were ranked.

Table 5.5 Means of constructs

Rank	Construct	Means
1	Requirements for establishing networks	3.51
2	Concept perceptions	3.45
3	Concept association	3.31
4	Professional advancement of networking	3.13
5	Concept view	3.06
6	Non-professional advancement of networking	2.99
7	Physical challenges of networking for professional development	2.97
8	Opportunities for networking	2.97
9	Diversity related challenges of networking for professional development	2.91
10	Personal challenges of networking for professional development	2.90

The means of constructs measure and indicate the perceptions of respondents on the different constructs of the questionnaire. All the constructs yielded means of more than 2.50, which is an indication that the respondents agree strongly (to some and great extent) with the questions as part of the constructs (par. 4.4.6 & 5.2).

The effect sizes that were calculated from the related data as derived from the questionnaire are presented in the following section.

5.2.5 Effect sizes

In this section, the relationship between the different biographical variables and the constructs that contribute towards the principals' views of networking and professional development were investigated. The investigation was done to calculate the effect sizes for each construct. This was done to find out if there was a large enough difference in the perceptions between the different groups of respondents to be of importance in practice. In order to determine the practical significance of d-values the following guidelines were used (Cohen, 1988):

- $d = |0.2|$: small significance
- $d = |0.5|$: medium (visible with the naked eye) significance
- $d \geq |0.8|$: large (practical) significance

Groupings for the calculation of effect sizes were done as they represent a specific position in the study population. The following socio-demographic variables were investigated:

- In the first socio-demographic variable, the difference was calculated between two groups, namely men and women (gender). There were no practical differences of medium or large effect sizes that would have a practical effect on the findings or conclusions of this study.
- The second variable concerned respondents' experience as school principals. The category was divided into four groups, namely: principals with 1-3 years' experience, 4-6 years' experience, 7-10 years' experience and 11 and more years' experience. In this category, there were some differences in medium and large effect sizes between the different groups' results. These results are explained in table 5.6.
- The third demographic variable considered the different age groups of respondents. The groupings were: respondents aged 31-50 years, respondents aged 51-60 years and respondents aged over 60 years. There was a difference of medium effect size between the responses which is shown in table 5.7.
- The fourth demographic variable, namely population groups was divided into four groups, i.e. Black, White, Coloured and Asian people. In this category, there were no practical significant differences in responses between the groups in the study.
- The fifth variable, namely home language consisted of three groupings. This category was divided into respondents that use Sesotho, Afrikaans or isiZulu as their home

language. This category yielded some differences in responses of medium effect size (visible to the naked eye) on the results of the study. Table 5.8 shows the results for this category.

- The level of education or training was the focus for the calculation of the sixth variable. Responses were placed in the following groupings: firstly, respondents with a tertiary diploma or degree; secondly, respondents with an Honours degree and lastly, respondents with a Masters or Doctor degree. In this category, there were some differences of medium effect size according to the results of the study. The results are presented in table 5.9.
- The seventh variable was the type of school of the respondents. The effect sizes were calculated between four groups, namely primary schools, secondary schools, combined schools and intermediate schools. There were some differences of medium effect size that were calculated. Table 5.10 shows the results for this category.
- In the last variable, the effect size was calculated between respondents that are linked to town schools, township schools and farm schools. In this category, there were also differences of medium effect size on the results of the study, which is presented in table 5.11.

Only socio-demographic variables with differences in medium or large effect sizes for the different constructs that would have a practical effect on the results of this study are summarised in the tables below. Where there are little or no differences in effect sizes (less than 0.5), the results were not presented in this research report.

5.2.5.1 Practical significance (effect size) in relation to years of experience as a principal
Table 5.6 below illustrates the effect sizes on the different constructs (table 5.5) for variances between the responses of the groupings related to the level of experience as a school principal.

Table 5.6: Descriptive statistics and effect sizes on the constructs for differences between different groups: years of experience

Construct	Group	n	Mean	Std. Dev.	Comparisons significance at the 0.05 level*	d-value			
						Group			
						1	2	3	4
Concept view	1	47	3.24	0.55	None		0.22	0.32	0.34
	2	24	3.11	0.62		0.22		0.06	0.17
	3	12	3.07	0.44		0.32	0.06		0.12
	4	83	2.97	0.82		0.34	0.17	0.12	
Concept association	1	46	3.33	0.57	None		0.11	0.14	0.02
	2	24	3.39	0.43		0.11		0.32	0.10
	3	12	3.25	0.44		0.14	0.32		0.09
	4	83	3.32	0.72		0.02	0.10	0.09	
Concept perception	1	46	3.52	0.50	None		0.30	0.37	0.09
	2	23	3.37	0.41		0.30		0.08	0.13
	3	12	3.33	0.52		0.37	0.08		0.19
	4	83	3.46	0.67		0.09	0.13	0.19	
Professional advancement of networking	1	47	3.02	0.58	3 – 4*		0.21	0.44	0.44
	2	23	3.15	0.62		0.21		Δ 0.64	0.21
	3	12	2.75	0.60		0.44	Δ 0.64		$\blacktriangle$ 0.88
	4	84	3.28	0.60		0.44	0.21	$\blacktriangle$ 0.88	
Non-professional advancement of networking	1	47	3.02	0.78	None		0.17	0.35	0.04
	2	23	3.15	0.61		0.17		Δ 0.65	0.19
	3	12	2.75	0.62		0.35	Δ 0.65		0.26
	4	81	2.98	0.90		0.04	0.19	0.26	
Opportunities for networking	1	47	2.89	0.64	None		0.10	0.09	0.24
	2	23	2.96	0.58		0.10		0.19	0.15
	3	12	2.83	0.65		0.09	0.19		0.32
	4	84	3.08	0.77		0.24	0.15	0.32	

(Table 5.6 continues on the following page)

Table 5.6: Descriptive statistics and effect sizes on the constructs for differences between different groups: years of experience (cont.)

Construct	Group	n	Mean	Std. Dev.	Comparisons significance at the 0.05 level*	d-value			
						Group			
						1	2	3	4
Requirements for establishing networks	1	47	3.58	0.51	None		0.23	0.44	0.03
	2	23	3.46	0.45		0.23		0.24	0.18
	3	12	3.32	0.57		0.44	0.24		0.41
	4	83	3.56	0.57		0.03	0.18	0.41	
Diversity related challenges in networking	1	46	3.11	0.64	1 – 3*		0.31	▲ 0.99	0.31
	2	23	2.91	0.53		0.31		△ 0.73	0.04
	3	12	2.47	0.60		▲ 0.99	△ 0.73		△ 0.56
	4	81	2.88	0.74		0.31	0.04	△ 0.56	
Physical challenges in networking	1	46	3.18	0.59	None		0.24	0.17	0.39
	2	23	3.04	0.61		0.24		0.03	0.22
	3	12	3.06	0.75		0.17	0.03		0.25
	4	84	2.84	0.87		0.39	0.22	0.25	
Physical challenges in networking	1	46	3.18	0.59	None		0.24	0.17	0.39
	2	23	3.04	0.61		0.24		0.03	0.22
	3	12	3.06	0.75		0.17	0.03		0.25
	4	84	2.84	0.87		0.39	0.22	0.25	
Personal challenges in networking	1	46	3.09	0.55	None		0.27	0.21	0.36
	2	23	2.89	0.73		0.27		0.06	0.10
	3	12	2.94	0.70		0.21	0.06		0.16
	4	81	2.82	0.74		0.36	0.10	0.16	

* Tukey's comparison significant at the 0.05 level (par. 4.10)

△ Medium effect size

▲ Practical significance

Groups: 1 = 1 – 3 years' experience

2 = 4 – 6 years' experience

3 = 7 – 10 years' experience

4 = 11+ years' experience

From the information in table 5.6, it can be derived that there was a difference of medium effect size on the constructs *Professional advancement of networks*. This means that group 2 (mean = 3.15) is in practice more involved in the professional advancement of networks than group 3 (mean = 2.75). There was also a difference of medium effect size on the construct *Non-professional advancement of networks* between group 3 and 2, meaning that group 2 (mean = 3.15) is in practice more involved non-professional network activities than group 3 (mean = 2.75). Furthermore, there was also a practical significance between group 4 and 3, meaning that group 4 (mean = 3.28) is more involved in professional network activities than respondents from group 3 (mean = 2.75). Therefore, it can be deduced that the respondents with a medium amount of experience (7-10 years) are less likely to engage in professional network activities than their less experienced (4-6 years) and more experienced (more than 11 years) colleagues. There was a difference of medium effect size on the construct *Diversity related challenges for networking* between group 2 and 3 as well as group 4 and 3. This means that group 3 (mean = 2.47) are more likely to be influenced by diversity related challenges than group 2 (mean = 2.91) and group 4 (mean = 2.88). A practical significance was also observed between group 1 (mean = 3.11) and 3 (mean = 2.47). The significance of these results lies in the fact that school principals with different experience levels perceive diversity in various ways. Diversity is a relevant aspect in South Africa that needs to be taken into account when establishing networks. This coincides with the information obtained from the broader literature (par. 3.6).

- **Synthesis**

The responses above indicated that principals with more experience (11+ years) were visibly more involved in network related professional and non-professional activities than their less experienced counterparts. The reason for this might be that experienced principals that have been in the occupation for quite a while are more involved. They might also be looking for new ways to develop themselves or renew their careers. Principals with less experience might not feel the necessity of professional network activities or haven't yet developed the skills in this regard. Principals with not much experience (1-3 years), perceive diversity issues as being less of a challenge for networking than their more experienced colleagues.

5.2.5.2 Practical significance (effect size) in relation to age group of principals

More than 50% of respondents were older than 50 years (par. 5.2.2; question 4). In table 5.7 below, the effect sizes for the different constructs of the study and variances between the responses of the groupings for the different age groups of the school principals are presented.

Table 5.7: Descriptive statistics and effect sizes for the constructs for differences between the age groups

Construct	Group	n	Mean	Std. Dev.	Comparisons significance at the 0.05 level*	d-value		
						Group		
						1	2	3
Concept view	1	73	3.07	0.62	None		0.02	0.10
	2	86	3.06	0.77		0.02		0.09
	3	13	2.97	1.00		0.10	0.09	
Concept association	1	72	3.33	0.53	None		0.06	0.12
	2	86	3.28	0.74		0.06		0.17
	3	13	3.41	0.66		0.12	0.17	
Concept perception	1	72	3.50	0.50	None		0.15	0.03
	2	85	3.41	0.66		0.15		0.12
	3	13	3.48	0.63		0.03	0.12	
Professional advancement of networking	1	74	3.06	0.59	None		0.13	^Δ 0.51
	2	85	3.15	0.66		0.13		0.34
	3	13	3.38	0.61		^Δ 0.51	0.34	
Non-professional advancement of networking	1	74	2.91	0.82	None		0.22	0.02
	2	82	3.09	0.80		0.22		0.20
	3	13	2.92	0.67		0.02	0.20	
Opportunities for networking	1	74	2.92	0.71	None		0.07	^Δ 0.50
	2	85	2.96	0.69		0.07		0.44
	3	13	3.31	0.78		^Δ 0.50	0.44	
Requirements for establishing networks	1	74	3.49	0.53	None		0.04	0.18
	2	84	3.52	0.60		0.04		0.15
	3	13	3.61	0.61		0.18	0.15	
Diversity related challenges in networking	1	72	2.85	0.74	None		0.15	0.13
	2	83	2.96	0.65		0.15		0.02
	3	13	2.94	0.72		0.13	0.02	

(Table 5.7 continues on the following page)

Table 5.7: Descriptive statistics and effect sizes for the constructs for differences between the age groups (cont.)

Construct	Group	n	Mean	Std. Dev.	Comparisons significance at the 0.05 level*	d-value		
						Group		
						1	2	3
Physical challenges in networking	1	73	2.95	0.75	None		0.07	0.10
	2	85	3.01	0.78		0.07		0.17
	3	13	2.87	0.70		0.10	0.17	
Personal challenges in networking	1	72	2.81	0.65	None		0.23	0.07
	2	83	2.98	0.72		0.23		0.15
	3	13	2.87	0.79		0.07	0.15	

* Tukey's comparison significant at 0.05 level

△ Medium effect size

▲ Practical significance

Groups: 1 = Age 21 – 50 years

2 = Age 51 – 60 years

3 = Age 60+ years

From the presentation of the data in table 5.7, it can be derived that there was a difference of medium effect size (visible to the naked) on the construct *Professional advancement of networking* between group 3 and 1. This means that, in practice, group 3 (mean = 3.38) is more involved in professional network activities than group 1 (mean = 3.06). There was also a difference of medium effect size on the construct *Opportunities for networking* between group 3 and 1. In practice this result means that respondents in group 3 (mean = 3.31) create and realise more opportunities for networking than those in group 1 (mean = 2.92).

• Synthesis

The responses, as presented above, indicated that older principals (60+ years) engage more in professional network activities, e.g. involvement in professional bodies, attending conferences, creating professional links with others, etc. than younger principals (21-50 years). They also find themselves more opportunities to engage in networks and external partnerships. A possible explanation of this result can be that older principals have established contacts over a longer period of time and are willing to share their own experiences and knowledge, thus creating more opportunities for networking. There can also

be the possibility that older principals want to reinvent themselves to keep up with modern trends and developments in the profession.

5.2.5.3 Practical significance (effect size) in relation to home language of principals

The main languages that are used in the area of the investigation are Sesotho, Afrikaans and IsiZulu (par. 5.2.2; question 6). In table 5.8, the effect sizes in relation to the different constructs of the study for variances between the responses of the groupings for home language of the school principal is presented.

Table 5.8: Descriptive statistics and effect sizes for the constructs for differences between home languages

Construct	Group	n	Mean	Std. Dev.	Comparisons significance at the 0.05 level*	d-value		
						Group		
						1	2	3
Concept view	1	116	3.00	0.77	None		0.37	0.01
	2	31	3.29	0.57		0.37		0.43
	3	20	3.00	0.67		0.01	0.43	
Concept association	1	116	3.26	0.71	None		0.29	0.18
	2	30	3.47	0.52		0.29		0.14
	3	20	3.39	0.47		0.18	0.14	
Concept perception	1	116	3.43	0.64	None		0.10	0.11
	2	30	3.49	0.44		0.10		0.01
	3	20	3.50	0.56		0.11	0.01	
Professional advancement of networking	1	117	3.09	0.68	None		0.16	0.24
	2	31	3.20	0.51		0.16		0.11
	3	20	3.26	0.54		0.24	0.11	
Non-professional advancement of networking	1	115	2.90	0.85	2 - 1*		Δ 0.50	0.14
	2	31	3.31	0.53		Δ 0.50		0.35
	3	19	3.03	0.79		0.14	0.35	

(Table 5.8 continues on the following page)

Table 5.8: Descriptive statistics and effect sizes for the constructs for differences between home languages (cont.)

Construct	Group	n	Mean	Std. Dev.	Comparisons significance at the 0.05 level*	d-value		
						Group		
						1	2	3
Opportunities for networking	1	117	2.94	0.76	None		0.16	0.06
	2	31	3.06	0.67		0.16		0.12
	3	20	2.98	0.43		0.06	0.12	
Requirements for establishing networks	1	116	3.50	0.62	None		0.11	0.09
	2	31	3.57	0.41		0.11		0.03
	3	20	3.55	0.55		0.09	0.03	
Diversity related challenges in networking	1	114	2.94	0.69	None		0.37	0.17
	2	30	2.69	0.67		0.37		^Δ 0.53
	3	20	3.07	0.72		0.17	^Δ 0.53	
Physical challenges in networking	1	117	2.91	0.80	None		0.21	0.20
	2	30	3.07	0.64		0.21		0.01
	3	20	3.07	0.69		0.20	0.01	
Personal challenges in networking	1	114	2.88	0.72	None		0.01	0.18
	2	30	2.88	0.72		0.01		0.19
	3	20	3.01	0.60		0.18	0.19	

* Tukey's comparison significant at 0.05 level

Δ Medium effect size

▲ Practical significance

Groups: 1 = Sesotho home language speakers

2 = Afrikaans home language speakers

3 = IsiZulu home language speakers

From the presentation of the data in table 5.8, it can be deduced that there was a difference of medium effect size on the construct *Non-professional advancement of networking* between group 1 and 2. In practice, group 2 (mean = 3.31) are more involved in non-professional networking activities than group 1 (mean = 2.90). There was also a difference of medium effect size on the construct *Diversity related challenges in networking* between group 2 and 3. This means that, in practice, group 3 (mean = 3.07) views diversity aspects, e.g. culture, age,

gender and home language more as being a challenge for networking for professional development than group 2 (mean = 2.69).

- **Synthesis**

The responses from different home language respondents yielded that Afrikaans speaking principals are more involved in non-professional advancement of networking than Sesotho speaking principals. This implies that Afrikaans home language principals connect more with external organisations and are more involved with sponsors than Sesotho home language principals. A further observation is that Afrikaans principals use mobile and internet devices more towards networking than Sesotho principals. Another observation is that IsiZulu home language speakers perceive diversity issues that can influence networking as being more of a problem than do Afrikaans and Sesotho home language speakers. According to the questionnaire, the diversity issues that can influence the potential of networking's value towards the professional development of principals are gender, age, cultural differences and language of communication. The above information confirms that diversity aspects need to be taken into account when engaging in networks for professional development, as different language users' opinion of its influence is dissimilar and can lead to conflict and disagreement, which will, amongst other aspects, limit effective networking. The views and experiences of the different cultural groupings of the rainbow nation of South Africa are diverse. In this case, it manifests in the form of language diversity. The forming of networks in diverse contexts was discussed in chapter 3 (par. 3.6).

5.2.5.4 Practical significance (effect size) in relation to education levels of principals

Table 5.9 below illustrates the effect sizes of the different constructs from the study for variances between the responses of the groupings for the level of education of the school principal.

Table 5.9: Descriptive statistics and effect sizes for the constructs for differences between education levels

Construct	Group	n	Mean	Std. Dev.	Comparisons significance at the 0.05 level*	d-value		
						Group		
						1	2	3
Concept view	1	73	2.96	0.74	3 – 1*		0.24	0.74 ^Δ
	2	80	3.13	0.65		0.24		0.57 ^Δ
	3	13	3.50	0.59		0.74 ^Δ	0.57 ^Δ	
Concept association	1	73	3.22	0.73	None		0.16	0.43
	2	80	3.33	0.55		0.16		0.27
	3	13	3.54	0.75		0.43	0.27	
Concept perception	1	73	3.38	0.65	None		0.14	0.25
	2	79	3.47	0.51		0.14		0.13
	3	13	3.57	0.74		0.25	0.13	
Professional advancement of networking	1	74	3.05	0.68	None		0.13	0.31
	2	79	3.14	0.55		0.13		0.19
	3	13	3.28	0.76		0.31	0.19	
Non-professional advancement of networking	1	72	2.83	0.81	3 – 1*		0.26	0.80 [▲]
	2	79	3.04	0.77		0.26		0.52 ^Δ
	3	13	3.46	0.80		0.80 [▲]	0.52 ^Δ	
Opportunities for networking	1	74	2.86	0.75	None		0.17	0.38
	2	79	2.99	0.64		0.17		0.23
	3	13	3.18	0.85		0.38	0.23	
Requirements for establishing networks	1	74	3.38	0.66	2 – 1*		0.36	0.24
	2	78	3.62	0.42		0.36		0.10
	3	13	3.55	0.70		0.24	0.10	
Diversity related challenges in networking	1	72	2.82	0.76	None		0.20	0.10
	2	79	2.97	0.60		0.20		0.34
	3	13	2.75	0.65		0.10	0.34	

(Table 5.9 continues on the following page)

Table 5.9: Descriptive statistics and effect sizes for the constructs for differences between education levels (cont.)

Construct	Group	n	Mean	Std. Dev.	Comparisons significance at the 0.05 level*	d-value		
						Group		
						1	2	3
Physical challenges in networking	1	74	2.91	0.86	None		0.13	0.01
	2	79	3.02	0.67		0.13		0.14
	3	13	2.92	0.72		0.01	0.14	
Personal challenges in networking	1	73	2.87	0.71	None		0.03	0.15
	2	77	2.89	0.71		0.03		0.12
	3	13	2.97	0.60		0.15	0.12	

* Tukey's comparison significant at the 0.05 level

△ Medium effect size

▲ Practical significance

Groups: 1 = Respondents with a tertiary diploma or degree

2 = Respondents with a Honours degree

3 = Respondents with a Masters or Doctor degree

From the data in table 5.9, it can be argued that there was a difference of medium effect size (visible to the naked) for the construct *Concept view* between group 3 and 1 and group 3 and 2. This means that, in practice, group 3 (mean = 3.50) has a relatively different view of the concept of networking than group 1 (mean = 2.96) and group 2 (mean = 3.13). There was also a difference of large effect size between group 3 and 1 and group 3 and 2 on the construct *Non-professional advancement of networking*. In practice this implies that respondents from group 3 (mean = 3.46) are more likely to engage in non-professional network activities than those in group 1 (mean = 2.83) and group 2 (mean = 3.04).

• Synthesis

The response from these groups yielded that the level of education has an influence on how people think about networks. It seems that principals with a high level of education (Masters and doctor degrees) have a more thorough and complete view of the concept and are more likely to advance networking through non-professional network activities, e.g. connecting with external organisations like sponsors and using mobile and computer applications for networking, than those with a lower level of education (Diploma, Bachelor degree and Honours degree). This agrees with the fact that some of the respondents indicated that they struggle

to engage in networking activities because of the environment that the school is situated (par. 5.3.2; table 5.13).

5.2.5.5 Practical significance (effect size) in relation to the type of school

Most of the principals (61.40%) indicated that they are employed in primary schools (par. 5.2.3; question 14). Table 5.10 illustrates the effect sizes of the different constructs for variances between the responses of the groupings in relation to the type of school.

Table 5.10: Descriptive statistics and effect sizes of the constructs for differences between the types of schools

Construct	Group	n	Mean	Std. Dev.	Comparisons significance at the 0.05 level*	d-value			
						Group			
						1	2	3	4
Concept view	1	104	2.97	0.82	None		0.27	0.27	0.15
	2	24	3.19	0.53		0.27		0.01	0.18
	3	17	3.19	0.55		0.27	0.01		0.18
	4	21	3.09	0.49		0.15	0.18	0.18	
Concept association	1	103	3.30	0.73	None		0.02	0.21	0.07
	2	24	3.28	0.48		0.02		0.35	0.06
	3	17	3.45	0.45		0.21	0.35		0.35
	4	21	3.24	0.58		0.07	0.06	0.35	
Concept perception	1	103	3.48	0.64	None		0.22	0.08	0.12
	2	23	3.34	0.48		0.22		0.18	0.11
	3	17	3.43	0.51		0.08	0.18		0.04
	4	21	3.40	0.59		0.12	0.11	0.04	
Professional advancement of networking	1	105	3.14	0.68	None		0.14	0.06	0.00
	2	23	3.04	0.58		0.14		0.10	0.16
	3	17	3.10	0.53		0.06	0.10		0.07
	4	21	3.13	0.52		0.00	0.16	0.07	

(Table 5.10 continues on the following page)

Table 5.10: Descriptive statistics and effect sizes of the constructs for differences between the types of schools (cont.)

Construct	Group	n	Mean	Std. Dev.	Comparisons significance at the 0.05 level*	d-value			
						Group			
						1	2	3	4
Non-professional advancement of networking	1	103	2.92	0.87	None		0.06	0.47	0.21
	2	23	2.87	0.74		0.06		^Δ 0.61	0.31
	3	17	3.32	0.56		0.47	^Δ 0.61		0.36
	4	20	3.10	0.62		0.21	0.31	0.36	
Opportunities for networking	1	105	2.94	0.77	None		0.04	0.06	0.12
	2	23	2.91	0.65		0.04		0.12	0.19
	3	17	2.99	0.56		0.06	0.12		0.08
	4	21	3.04	0.61		0.12	0.19	0.08	
Requirements for establishing networks	1	105	3.52	0.61	None		0.20	0.06	0.16
	2	23	3.40	0.55		0.20		0.30	0.04
	3	17	3.56	0.40		0.06	0.30		0.26
	4	20	3.42	0.54		0.16	0.04	0.26	
Diversity related challenges in networking	1	101	2.92	0.74	None		0.12	0.06	0.06
	2	23	2.83	0.65		0.12		0.07	0.21
	3	17	2.88	0.65		0.06	0.07		0.13
	4	21	2.97	0.56		0.06	0.21	0.13	
Physical challenges in networking	1	103	2.92	0.85	None		0.03	0.19	0.18
	2	23	2.95	0.57		0.03		0.23	0.18
	3	17	3.08	0.57		0.19	0.23		0.01
	4	21	3.07	0.68		0.18	0.18	0.01	
Personal challenges in networking	1	102	2.87	0.77	None		0.02	0.24	0.04
	2	23	2.89	0.53		0.02		0.31	0.07
	3	17	3.05	0.54		0.24	0.31		0.34
	4	20	2.84	0.62		0.04	0.07	0.34	

* Tukey's comparison significant at the 0.05 level

Δ Medium effect size

▲ Practical significance

Groups: 1 = Primary schools

2 = Secondary schools

3 = Combined schools

4 = Intermediate schools

From the information in table 5.10, it can be derived that there was a difference of medium effect size on the construct *Non-professional advancement of networks* between group 2 and 3. This implies that group 3 (mean = 3.32) is in practice more involved in non-professional network activities than group 2 (mean = 2.87).

• Synthesis

The responses above indicated that principals from combined schools are more likely to engage in non-professional network activities than those involved in secondary and primary schools. The conclusion that can be drawn for this result is that principals from combined schools have learners ranging from 7-18 years old in their school. The larger range of parents, because of a greater range in learner age, makes for more opportunities to network and to form partnerships with external stakeholders like sponsors and businesses.

5.2.5.6 Practical significance (effect size) in relation to the kind of school according to the area in which it is situated

Table 5.11 illustrates the effect sizes for the different constructs for variances between the responses of the groupings for the kind of school according to the area it is situated in.

Table 5.11: Descriptive statistics and effect sizes for the constructs for differences between the kinds of schools

Construct	Group	n	Mean	Std. Dev.	Comparisons significance at the 0.05 level*	d-value		
						Group		
						1	2	3
Concept view	1	27	3.35	0.58	1 – 3* 2 – 3*		0.28	0.67 ^Δ
	2	64	3.19	0.57		0.28		0.49
	3	60	2.75	0.88		0.67 ^Δ	0.49	
Concept association	1	26	3.54	0.51	None		0.38	0.44
	2	64	3.34	0.54		0.38		0.18
	3	60	3.19	0.80		0.44	0.18	

(Table 5.11 continues on the following page)

Table 5.11: Descriptive statistics and effect sizes for the constructs for differences between the kinds of schools (cont.)

Construct	Group	n	Mean	Std. Dev.	Comparisons significance at the 0.05 level*	d-value		
						Group		
						1	2	3
Concept perception	1	26	3.56	0.44	None		0.24	0.17
	2	63	3.42	0.55		0.24		0.02
	3	60	3.44	0.72		0.17	0.02	
Professional advancement of networking	1	27	3.34	0.44	None		^Δ 0.50	0.33
	2	63	3.04	0.65		^Δ 0.50		0.10
	3	61	3.11	0.69		0.33	0.10	
Non-professional advancement of networking	1	27	3.37	0.60	3 – 1*		0.42	^Δ 0.69
	2	62	3.06	0.74		0.42		0.33
	3	59	2.76	0.88		^Δ 0.69	0.33	
Opportunities for networking	1	27	3.23	0.67	None		0.44	^Δ 0.50
	2	63	2.93	0.62		0.44		0.13
	3	61	2.83	0.82		^Δ 0.50	0.13	
Requirements for establishing networks	1	27	3.55	0.41	None		0.03	0.18
	2	63	3.53	0.53		0.03		0.16
	3	60	3.42	0.70		0.8	0.16	
Diversity related challenges in networking	1	26	2.78	0.72	None		0.11	0.16
	2	63	2.82	0.59		0.11		0.05
	3	58	2.90	0.78		0.16	0.05	
Physical challenges in networking	1	26	3.00	0.64	None		0.01	0.09
	2	63	3.01	0.67		0.01		0.10
	3	61	2.91	0.93		0.09	0.10	
Personal challenges in networking	1	26	2.98	0.52	None		0.13	0.22
	2	61	2.89	0.66		0.13		0.11
	3	60	2.80	0.81		0.22	0.11	

* Tukey's comparison significant at the 0.05 level

^Δ Medium effect size

▲ Practical significance

Groups: 1 = Principals from town schools
 2 = Principals from township schools
 3 = Principals from farm schools

From the data in table 5.11, it can be derived that there was a difference of medium effect size on the construct *Concept view* between group 1 and 3. This suggests that, in practice, group 1 (mean = 3.35) has a different view of the concept of networking, to quite an extent, than group 3 (mean = 2.75). The data revealed that there was a difference of medium effect size between group 1 and 2 for the construct *Professional advancement of networking*. Thus, group 1 (mean = 3.04) are more likely to engage in professional networking activities than group 2 (mean = 3.34). There was also a difference of medium effect size between group 1 and 3 on the construct *Non-professional advancement of networking*. This result indicates that in practice, respondents from group 1 (mean = 3.37) are more likely to engage in non-professional network activities than those in group 3 (mean = 2.76). There was a further difference of medium effect size on the construct *Opportunities for networking* between group 1 and 3. In practice, this result suggests that respondents from group 1 (mean = 3.23) have more opportunities for networking than those from group 3 (mean = 2.83).

- **Synthesis**

The response from these groups suggested that the area in which the school is situated has an influence on principals' views of the concept of networking. The data indicate that principals from town schools have a difference in their views about networks to quite a large effect. The data further suggested that principals of town schools are more likely to advance networking through professional and non-professional network activities, e.g. involvement in professional bodies and unions, creating links with other principals, connecting with external organisations like sponsors and using mobile and computer applications for networking, than those from township and farm schools. The results further indicated that the school environment that principals from farm schools find themselves in, is less conducive for networking than the environment of those principals from town schools. This result coincides with the results from the qualitative data. Some respondents indicated that they have difficulty to engage in networking activities because of the lack of facilities (par. 5.3.2; table 5.13). A possible explanation for this response is that principals from town schools will have more opportunities for networking, because of its closeness and connectivity to other schools and external organisations. Another feature from the results that supports the data in this section is the fact that only one respondent's personal interpretation of networking included the involvement of external stakeholders (par. 5.3.1; table 5.12).

5.3 RESULTS: QUALITATIVE DATA

The qualitative data regarding the association and interpretation of the meaning of networking and its relevance towards professional development of principals of all the public schools in the Thabo Mofutsanyana education district of the Free State Province was captured to reveal more descriptive responses and to clarify the underlying logic of the respondents (par. 4.11). The qualitative part of this research report consists of two integrated open-ended questions as part of the questionnaire. The aim for the inclusion of the open-ended questions was to obtain further responses that were embedded in the unique wording of the respondents. The methodological procedure for the analysis of the qualitative data entailed the recording, transcribing and organising of responses, evaluation of responses, identifying patterns, categories and themes, searching for alternatives as part of a content analysis procedure and lastly, to write the report (Ivankova, Creswell & Plano Clark, 2007:15). The discussion of the qualitative data is presented according to sections C and D of the questionnaire.

Response levels to the open-ended questions were fairly low in both sections of the questionnaire, but sufficient responses were captured for an analysis. A possible reason for the moderate response rate to the qualitative questions may be ascribed that respondents (participants) regarded the quantitative questioning as sufficient and didn't have anything of worth to add to the questionnaire items. Furthermore, the respondents could also have viewed it as being time consuming, thus preferred not to respond to the specific open-ended questions. Another possibility could also have been that some of the respondents have a lack of knowledge as to what networking is. The responses to the qualitative section are discussed in the following paragraphs.

5.3.1 Section C: Personal associations or interpretations of networking

The aim of this open-ended question was to obtain a descriptive response of what respondents' personal association with and interpretation of the meaning of the concept of networking is. The responses to the open-ended questions were transcribed and organised in table form (par. 4.11.1). The next step was to evaluate the recorded responses to identify relevant categories, patterns and themes (par. 4.11.2). The response categories are presented in table 5.12.

Table 5.12: Personal associations or interpretations of networking

Rank	Response categories	Frequency
1	Professional groupings for personal and professional development	12
2	Technological, electronic and online communication between people	10
3	Sharing of ideas, information, knowledge and resources	7
4	People that share common goals can assist each other	6
5	Something that can be used for school improvement	3
6	Creates a positive attitude amongst different people	2
7	Social group gatherings	2
8	Involvement with stakeholders	1

No Response: 130

The presented data about the personal associations or interpretations of networking received a total of 43 responses. The responses revealed that 12 respondents regarded networking as professional groupings that can be used for development purposes. These responses are in coherence with the rationale for the study (par. 1.3.3). The second association with networking, regarded by 10 respondents, has to do with electronic and online networking. This is an issue which is relevant in the technological era that we are living in. The third personal association or interpretation of networking, as indicated by 7 respondents, was sharing of ideas, information and resources. This concurs with the definition of networking as was set out in the literature chapter on networking (par. 2.2.1). These responses illustrate that respondents understand the common view of networking to a certain extent. The fourth interpretation of networking, as indicated by only 6 respondents, was people that share common goals can assist each other. This interpretation of networking is interesting as some respondents feel that in order for proper networking to take place, people have to share common goals. This interpretation is also supported by the literature (par. 2.2.2 & 2.2.3.1). Networking as something that can be used towards school improvement was the fifth interpretation of networking by the respondents. This interpretation concurs with the literature that networking can ultimately lead to school development and general improvement (par. 3.4.2, 3.4.4 & 3.5.4). The sixth association of respondents about networking, as indicated by two respondents, was that networks create a positive attitude amongst different people. As one of the respondents mentioned: *“Principals create a mutual band of trust and an understanding of different viewpoints. We have a camaraderie.”* The specific respondent's viewpoint agrees with the broader literature on the characteristics of networks (par. 2.2.2) and the advantages of networks (par. 2.3.1.1). Networks as being social group gatherings was the seventh interpretation of networking, as suggested by two respondents. In chapter 2,

social networking was discussed as being one of the functions of networks. Although it is a relevant type of networking which is used by most people all over the world, its objectives might not be effective towards professional development activities (par. 2.2.4.1). This notion is also confirmed by the qualitative data, as only two respondents thought networking only to be social group gatherings. The last association or interpretation of what networking implies, as specified by one respondent, was involvement with stakeholders. It is quite interesting that this interpretation of networking only received a single response from the respondents. The literature suggests that the involvement of internal and external stakeholders in the form of partnerships can be beneficial in forming networks that can ultimately contribute towards personal and professional development of school principals (par. 2.3.1.3).

The general significance of the presented data was that the researcher noted that there is a diverse understanding on what networking entails by the respondents. Although most respondents' interpretation and association of networking is elementary and fundamentally orientated, it is interesting that there were a number of respondents that see networks as instruments that can be used towards professional development. Respondents' personal associations and interpretations of networking also show a relationship with the broader literature (chapters 2 and 3) and the quantitative data.

5.3.2 Section D: Challenges of using networks for professional development and school improvement

The rationale for this question was to determine what the respondents' views were on the challenges that they experience or that might arise when using networks for professional development as well as school improvement purposes. The gathered data was organised into categories of meaningful groups as recorded by the respondents' comments on this topic. The identified categories are presented in table 5.13.

Table 5.13: Challenges of using networks for professional and school development

Rank	Response categories	Frequency
1	Lack of ICT facilities, funds and resources	23
2	Lack of ICT literacy and a need for training and development	14
3	Diversity issues, i.e. gender, culture, age, home language etc.	5
4	Physical challenges	4
5	Fear to become involved due to suspicion and transparency issues	2

No response: 125

The overall response rate for this open-ended question was low with only 48 respondents replying with reference to the value of networking towards professional and school development. Almost half of the respondents in this section indicated that a lack of Information, Communication and Technological (ICT) facilities, resources and funds are the main challenge for networking to take place. Responses included no electricity, telephone, or computer sources, poor or insufficient network coverage and a lack of funds. Most of the school principals that were involved in the research study are from rural areas and basic communication means still seem to be a challenge. This response is in line with the responses of question item 15 of the questionnaire, which indicated that almost half the schools involved are farm, rural or village schools³ (par. 5.2.3). The second response of 14 respondents indicated that there is a general lack of ICT literacy and that there is a need for training and development in the use of ICT. This response, together with the responses in the previous category, implies that there is general low levels of ICT literacy in the rural areas, which form part of the study population (par. 1.5.2.3).

The third response of 5 respondents was that there are some diversity issues that might be challenging for forming working networks. Specific diversity issues that were raised as being problematic are gender, age, home language and cultural differences. Diversity issues are relevant in South Africa with its many differences amongst its people. Networks in diverse contexts forms part of the rationale for the study and was discussed in chapter 3 (par. 3.6). It was also indicated by respondents in the qualitative section of the study as being a challenge for networking. Effect sizes that were calculated revealed that the different groupings view diversity challenges differently. Therefore, it is an aspect that should be addressed and embraced.

In the fourth instance, physical challenges for networking was pointed out by 4 respondents. The physical challenges that the respondents suggested were distances from other schools and time-constraints due to a large workload. These responses coincide with the responses in the first two categories and that almost half of the schools in the study are from rural areas. Thus, physical challenges might be regarded as a problem for networking in the area. The last category, as indicated by 2 respondents, was fear to become involved. Issues that were

³ In South Africa there are a variety of types of schools according to the area in which it is situated. In formal towns one will find town and township schools (par. 5.2.3). In the rural areas there are schools that are situated in rural villages (village schools), on farms (farm schools) or are far from towns (rural schools).

raised by the respondents in this category are being suspicious of the value of networks and a lack of transparency between network members. The views of the respondents are in line as were brought forward by the broader literature on the complexity of networks (par. 2.2.3.1) and the disadvantages of networks (par. 2.3.1.2). This response can also be connected to the phenomenon that some of the school principals are unsure of what networking entails and a general lack of knowledge of the value of networks. This notion is also supported by the literature that lack of knowledge and a common understanding on how to successfully network may create difficulties in the networking process (par. 2.3.1.2).

According to the literature, networks can be successfully utilised towards professional- and school development. Proper establishment and management of networks are prerequisites for successful networking to take place (par. 2.3). The responses in the qualitative section enlightened what respondents' personal views and interpretations are regarding networking and challenges in using it for the professional development of school principals. What it also portrayed, is that school principals who are part of the study population have a wide-ranging view of what networking is and how it should be implemented. It also seems that networking is not optimally utilised by principals in general due to several factors, e.g. lack of knowledge and facilities, low ICT literacy levels and infrastructural challenges. Some of these challenges will be addressed in chapter 6 when a framework for networks towards professional development of school principals will be presented.

5.4 SUMMARY

The chapter started with a description of the responses from the structured quantitative section of the questionnaire. A confirmatory factor analysis was done to determine the construct validity for each subsection of the questionnaire. The Cronbach Alpha coefficient for each construct was then calculated to measure the reliability of the question items in relation to the constructs of the questionnaire. The results demonstrated a high level of construct validity and reliability.

The responses from the biographical section of the questionnaire revealed that most of the respondents were Sesotho home language speakers, over the age of 50 years and had experience as a principal for more than 11 years. This resonates well with recent research done by the University of Stellenbosch that 33% of South African school principals are over the age of 55 years and have been in the same position for years because of a lack of opportunities to move and progress within the South African education system (Marais, 2016:11; Wills, 2015:2). Noteworthy was that there were more male principals (57.80%) that

participated in the study than female principals. What the responses also present was that more than half the respondents are in possession of a post-graduate qualification. Also worth mentioning is the fact that 30.59% of schools have less than 100 learners. There were also quite a number of schools (33.54%) with an annual enrolment of more than 700 learners. This is an indication of the differences that exist between schools in the study area.

Effect sizes were also calculated to investigate the relationship between the different biographical variables and the constructs that contribute towards the principals' views of networking and professional development. The constructs that yielded the most differences were respondents' views on the concept view, professional and non-professional advancement of networking, opportunities for networking and diversity related challenges in networking.

The results from the quantitative responses indicated that the main contributors to insufficient networking for professional development are diversity challenges and a lack of opportunities for professional and informal networking. The respondents indicated that differences in years of experience, age, home language, education levels and the area in which the school is situated, present complications and hindrances towards networking for professional development purposes. A response for concern was that a significant number of respondents viewed diversity issues as a challenge for networking.

The respondents qualitatively recorded a variety of responses. Responses regarding their personal associations or interpretations of networking yielded a variety of results (par. 5.3.1). Examples of the responses agreed with the results of the quantitative data. Replies such as professional groupings for personal and professional development, sharing of ideas, information, knowledge and resources and people that share common goals to assist each other are a few of the responses. These specific aspects are important exemplars as they support the results of the quantitative data. Valuable responses were also recorded with regard to the descriptions of the expected challenges of networking for professional development of school principals (par. 5.3.2). It was also further reported that low ICT literacy levels and a lack of resources were the main concerns relating to this issue.

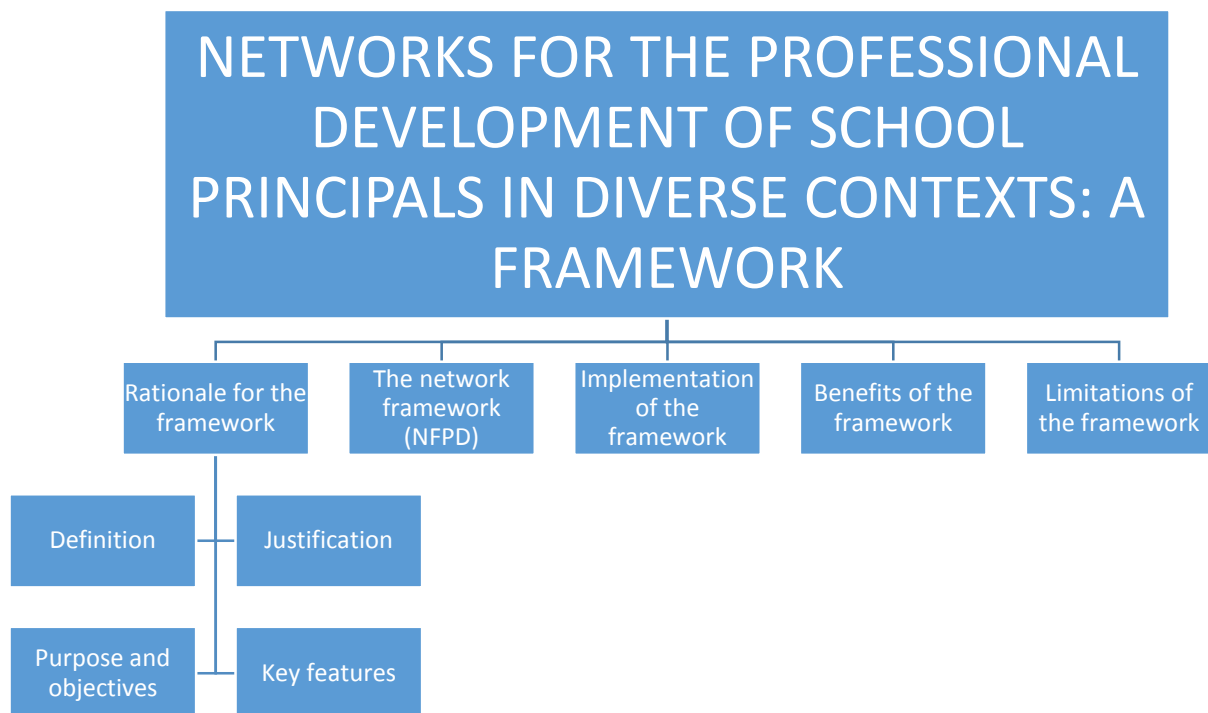
The responses from both the quantitative and qualitative sections of the research are considered supplementary to the theoretical framework with reference to networks for professional development of principals as described in par. 4.11. The responses provided additional information about the various sections of the theoretical framework, firstly that of

associations or interpretations of networking and secondly, challenges that may arise when using networks for professional development and school improvement purposes.

In this chapter the results emanating from the empirical investigation were presented and discussed. On the basis of the interpretation of the biographical information and the constructs, the qualitative data as well as the information gained from the literature chapters (chapter 2 and 3), a framework for networks towards professional development of school principals will be presented in Chapter 6.

CHAPTER 6

NETWORKS FOR THE PROFESSIONAL DEVELOPMENT OF SCHOOL PRINCIPALS IN DIVERSE CONTEXTS: A FRAMEWORK



6.1 INTRODUCTION

In the previous chapter, the data obtained from the empirical research were presented and interpreted. The aim of this chapter is to use the data from this research study to develop a framework for establishing regional and school-based networks for the professional development of school principals in diverse contexts. The utilisation of the theoretical basis from the literature study and the data gathered through the questionnaire enabled the researcher to draw conclusions that were used to construct a framework for establishing successful networks.

The proposed framework aims to assist school principals in the study area to establish working networks towards their own professional development and general school improvement. The framework, if utilised correctly, can also be of value towards the forming of networks for the professional development of school principals in similar environments and with comparable circumstances. Therefore, the network leadership activities that form part of the framework must be able to support the professional development of principals. In the light of the above, the proposed framework for networks will consider the following elements: purpose, key objectives, implementation, activities, challenges and resources (figure 2.5, par. 2.3.4).

6.2 RATIONALE FOR THE FRAMEWORK

As was discussed in the literature chapters (chapters 2 and 3) there are different types of networks that can be used for different purposes. It was also discussed that networks need to be established and managed appropriately. Furthermore, networks also need to be evaluated continuously for it to be successful functioning networks that are sustainable over a period of time. With the above background in mind the rationale for a network framework was considered. To be able to appreciate the need for the network framework, a discussion will follow on the definition, justification, purpose and objectives and key features of the proposed framework.

6.2.1 Definition

A framework can be defined as a basic structure of something or a set of ideas or facts that provide support for something else. Furthermore, it can also be defined as a basic conceptual structure of ideas and a structural frame of reference (Merriam-Webster dictionary, 2016). A framework is also viewed as a fundamental structure which supports a set of assumptions, concepts, values and practices that constitutes a way of viewing reality (The Free dictionary,

2016, Miles & Huberman, 1994:18). According to the Macmillan dictionary (2016) a framework is a set of principles and ideas that you use when you are forming your own decisions and judgements. Miles and Huberman (1994:18) also define a framework as a visual or written product, one that explains, either graphically or in a narrative form, the main things to be studied – the key factors, concepts or variables and the presumed relationship among them.

With the above definitions in mind, a framework for the purpose of this study, with a specific focus on networks and networking, was formulated by the researcher:

“A framework is a conceptual and fundamental structure that contains assumptions, concepts and practices about networks and networking, which can be used in approaches and decision-making processes towards professional development practices for principals in diverse contexts”.

The following discussion will focus on the justification for establishing the framework for networks.

6.2.2 Justification for the framework

The power of networks for professional development can't be underestimated. In the literature chapters (chapters 2 and 3) the significance and importance of networks were extensively discussed and it is clear that networking is recognised as a useful tool for leadership learning and leadership capacity building (par. 2.2.1; 3.4.2 & 3.4.4). The establishment and maintaining of networks are viewed as indispensable for the professional development of school leaders. The confirmation obtained from the literature chapters justifies the need for a framework for networks that can be used towards professional development. This notion also links with the rationale for the study (par. 1.1 & 1.3).

No proven or scientifically based management strategy for the implementation of a learning network component as part of the professional development of educational leaders could be found as part of this research study. The absence of a proven framework or strategy for the implementation and management of a particular learning component for the professional development of educational leaders and managers in diverse contexts also justifies the development of this framework.

6.2.3 Purpose and objective of the framework

The main purpose of the framework is to contribute to the existing body of knowledge on networks and networking in relation to the professional development of school principals in diverse contexts. The apparent lack of a scientifically based management framework for the establishment of networks to assist the professional development of school principals further supported the idea of a framework for networks. The contribution and value of this framework is to provide a thorough basis for the implementation and management of networks as part of the professional development of educational leaders within the specified context. Furthermore, the framework was developed because of a need for professional development opportunities for school principals in diverse contexts. The need for such a study implied the development of a framework that includes the development and management of networks as part of the professional development of educational leadership in schools in South Africa (par. 3.5.1; 3.5.2 & 3.5.3).

The framework applies within the context of the education system and is intended to be used for professional development purposes by school principals and other educational leaders. Furthermore, its ultimate intention should be to bring about total school improvement, thus ultimately contributing towards the improvement of the education system as a whole (figure 2.5, par. 2.3.4).

6.2.4 Key features of the framework

The key features of the framework, as was developed in chapter 2 (table 2.3), were used in developing the framework for networks aimed at the professional development of school principals. The key features of the framework that was developed include the following aspects (figure 2.5):

- Component – the different components in the network process, i.e. establishing, managing and sustaining a network.
- Purpose – the main purpose for initiating and participating in the network.
- Key objectives – the key objectives and aims for engaging in the network.
- Functioning/implementation – the manner in which the network will be functioning.
- Activities/actions – the different network activities and actions that will be engaged in in order to achieve the desired outcomes.
- Challenges – the challenges that might arise when establishing and managing the network.

- Resources – the resources that are available and will be needed for effective networking to take place.

These key features were developed as an outline to be able to establish a suitable and effective framework for networks towards the professional development of school principals in diverse contexts.

The following principles, as derived from the literature, were adopted in establishing the network framework for the professional development of principals (par. 2.2.3.1 & 2.3):

- Simplicity – it should be presented in a user-friendly way.
- Comprehensiveness – all the major considerations and issues of the concepts should be covered for completeness.
- Relevance – it has to contribute towards the relevant focus of the network, i.e. the professional development of school principals.
- Accessibility – it should be available and understandable to everyone.

In the next section, the framework that was developed is discussed. There will also be an explanation of how it can be used by school principals for professional development purposes in diverse contexts.

6.3 THE NETWORK FRAMEWORK FOR PROFESSIONAL DEVELOPMENT (NFPD)

While it is clear that there can be no one-size-fits-all approach to establish networks, the following framework is offered in the context of this research to create networks for professional development purposes in diverse contexts. These suggestions are intended to address the conundrum as identified in the study. The framework aims to present guidance on establishing, managing and evaluating networks to be used continuously towards professional development of school principals. The framework does not take the form of a “recipe”, but rather offers insights on which issues to address, focus on and value when engaging in networks.

6.3.1 The framework

The framework lists practices that can be used and applied when establishing, managing and evaluating networks. The members of the individual network need to draw up their own objectives according to the network's and individual needs. These objectives can be altered and amended as the development needs of the members of the network change. The framework must be tailor made according to situation specific needs and take into account the uniqueness of each individual network and its participants. The Network Framework for Professional Development (NFPD) is presented in table 6.1 below (table 6.1 follows on the next page).

Table 6.1 The Network Framework for Professional Development (NFPD)

Component	Purpose	Key objectives	Functioning / implementation	Activities/actions	Challenges	Resources
Establishing a network	Establish a network between school principals for professional development purposes.	To develop principals in areas of management and leadership: e.g. finances, human resources, academics, extra-curricular, discipline, etc.	Do an assessment of expertise of members. Communicate how activities will be implemented, e.g. technological, regular meetings, etc. Check that the pre-conditions are followed. Agree on the size of the network.	Set up roles and responsibilities. Draw up clear objectives that are attainable. Obtain trust between members.	Assess which challenges can be expected, e.g. time, distance between members, diversity issues for example, different belief systems, premeditated ways, etc.	Evaluate the resources that will be needed to achieve the objectives, also which resources are available and needed. Arrange a meeting place.
Managing a network	To manage the network effectively in order to attain the aims and objectives of the network and individuals in the network.	To manage the network in such a way that each one forming part of the network commits and works towards achieving the professional development outcomes.	Choose the leadership structure. Consider the intervals of meetings. Indicate the way of communicating. Choose the type of external stakeholders that will be used. Assure that everyone has the same goals and attitude towards networking.	Draw up a development plan. Ask the questions who, what when and how? Communicate as much as possible. Meet regularly. Assess regularly on the progress. Adjust the plan if necessary.	Manage challenges that may occur because of e.g. diversity, technology, attitude, lack of knowledge and skills, not taking responsibility or sharing reciprocity.	Use books, newsletters, conferences, seminars, technological applications, e.g. <i>WhatsApp</i> , e-mail, internet, etc. to implement activities. Use existing systems and external experts.
Sustaining a network	To evaluate the network regularly to function effectively and be sustained over a period of time	The objective is to sustain the network at least for the time needed to attain the aims. Objectives should come from within the network (situation-specific) to attain sustainability.	Consider how the network will be evaluated, e.g. through internal or external processes.	Provide opportunities for self-reflection and feedback sessions. Do an assessment of the outcomes. Promote the network by involving external stakeholders.	Address challenges that prevent the network to achieve objectives and go back to the management phase if necessary.	Reflect on which new technological and other resources can be used for improved goal-attainment.

Before using the NFPD for initiating a network there are some elements or factors that need to be considered and explored. These factors were derived from the information obtained in the literature chapters, as well as from the researcher's own experience and knowledge (par. 2.3). Taking into account these factors the following questions need to be deliberated:

- Who will be responsible to establish and manage the network?
- Who will take the leadership role or will it be shared or alternated between members?
- What will the role be of each network participant?
- What will be each network member's responsibility in the network and towards other members?
- What are the objectives that each individual want to achieve through the network?
- Do all network participants understand the content and functioning of the network?
- Are all network members willing to contribute equally and commit fully towards the objectives of the network?
- Are the intentions of every network member clear and virtuous?
- Does each network member have the appropriate attitude towards development?
- Do all participants pledge to mutual reciprocity in the network?

By considering these aspects (questions) before engaging in a network, each participant will be able to understand the context of the network, what its aims are and if they really want to play a part in it. Thus, the network will have members with a committed and positive attitude towards the purpose of the network and will contribute in achieving the aims of the network.

In the following discussion, some biographical factors will be explored, as was derived from the data analysis, which need to be taken into account when using the framework.

6.3.2 Socio-demographic and biographical factors for consideration when using the framework

The findings of the data analysis on the effect sizes, as was presented in chapter 5, show that the following factors need to be taken into consideration when forming and engaging in networks (par. 5.2.5):

- **Years of experience and age of school principals (par. 5.2.5.1 & 5.2.5.2)**

Older principals and principals with more experience are more likely to be involved in networking activities. Hence, it is also important to involve newly appointed principals and

principals with less experience. It also came to the fore that principals with less experience are more likely to regard diversity issues as being a problem for networking. The managing of diversity aspects must not be neglected when forming a network. Networks that are established with principals from different age groups can have the value that experienced principals can share their own acquired knowledge and expertise with their less experienced counterparts and even act as mentors for those principals with less experience.

- **Difference in education levels of the principals (par. 5.2.5.4)**

What was interesting from the data analysis is that principals with higher levels of education view networking differently and are more involved in advancing professional and non-professional networking activities than those with lower levels of education. It can be helpful if networks are formed where principals with lower education levels can learn from those with higher education levels. Such a reciprocal working relationship can contribute towards the professional development of principals.

- **Type of school and the area in which the school is situated (par. 5.2.5.5 & 5.2.5.6)**

Principals from town schools view networking differently from those in township and farm schools (par. 5.2.3 & 5.3.2). Principals from town schools are also more likely to advance networking by means of external partnerships and connecting to other principals. It is important to realise that principals from different schools may contribute towards networks in different ways. Principals from town schools can also assist other principals in professional development activities. What is important to bear in mind is that school principals, regardless of the type of school, should have the same attitude and intentions towards true reciprocity and the objectives of the network (par. 6.3.1).

- **Diversity challenges (par. 5.2.5.3 & 5.3.2)**

Diversity challenges were perceived by many principals as being a barrier for networking. Diversity issues that were indicated as possible challenges for networking towards the professional development of principals are gender, age, cultural differences, home language and language of communication (par. 2.3.2.2). Diversity aspects need to be taken into account when engaging in networks. If this is ignored it can lead to conflict and failure to achieve the objectives of the network, i.e. professional development. Networks in diverse contexts were discussed in chapter 3 (par. 3.6). Diversity issues that are managed appropriately can lead to a better understanding of other people's views and beliefs. Furthermore, it can be of value towards the development of the network in achieving its objectives.

These issues still seem to be a challenge for network participation and need to be reflected and acted on when forming networks. The framework doesn't give specific answers to these issues. It intends to assist network members to analyse their own situation and seek for solutions to their own specific individual problems.

6.3.3 Synthesis

The framework provides a basis for school principals to build professional relationships with others through networks that can be used for their own professional development. In this regard, principals need to pose critical questions about their own developmental concerns and seek to address these developmental issues. Some principals have their own personal belief systems and are set in their ways. They might find it difficult to let go of their own orientations and traditions and to adapt to a new way of thinking about development. The complexity of power relations and the impact it can have on a network's functioning may also present as a challenge. If school principals take a network approach towards professional development, it can have a surprise positive influence on their own careers as well as towards their school's development and improvement.

In the following section, the different stages in which the NFPD could be implemented will be discussed.

6.4 IMPLEMENTATION OF THE NETWORK FRAMEWORK (NFPD)

The framework can be used to implement network activities over a certain period of time and for specific purposes. To ensure that proper and consistent development takes place, the implementation can be done in four stages. Figure 6.1 below illustrates the stages in the implementation of the Network Framework for Professional Development (NFPD).

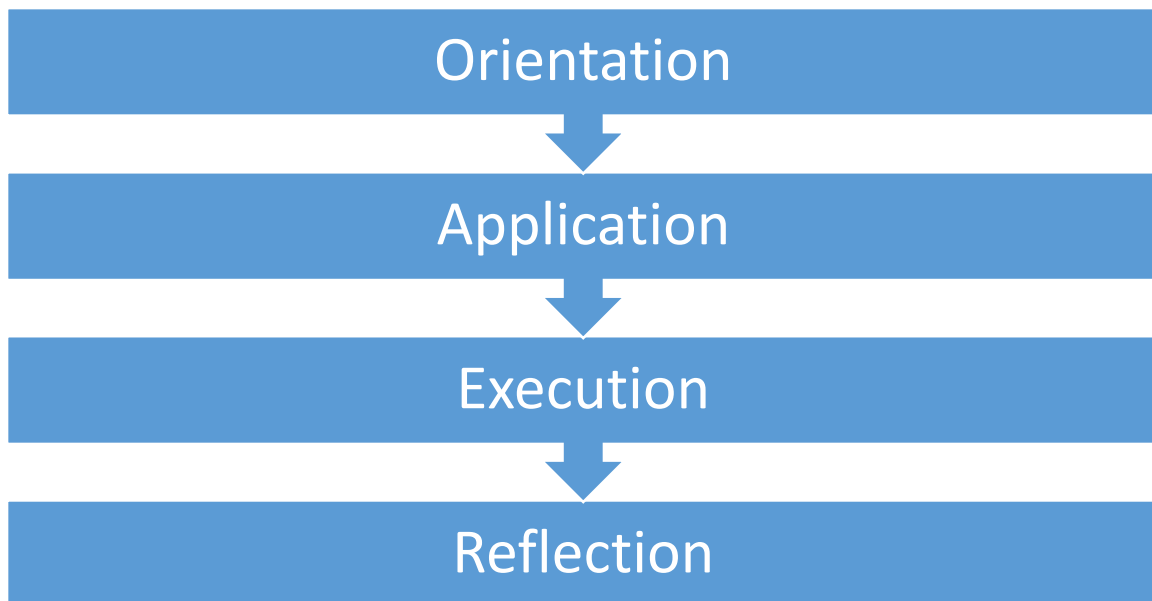


Figure 6.1 The stages in the implementation of the network framework

- **Orientation**

This is the initial stage where members are identified and participants get to know each other. This is an important stage as mutual trust needs to be established as soon as possible, to activate the network activities. The purpose of this stage is information sharing, as well as to establish and define the personal and professional development objectives of the network.

- **Application**

This is the stage in which the development objectives should be implemented through different activities and actions within the network, e.g. invitation of experts and leaders in the field of development, attending conferences and seminars or attaining, reading, discussing, interpreting and evaluating information on certain developmental concerns, etc. Individual consultations between members can also form part of this stage in order to activate professional development affairs and activities.

- **Execution**

During this stage, participants should aim to utilise the learned knowledge and skills that were attained in the previous stage in their idiosyncratic school situation. This should be done by practically sharing and applying the ideas, knowledge and skills and executing it at their own individual schools according to their unique needs and circumstances. This implementation

can be done independently or with the help of other network members, i.e. mentors, to achieve the desired outcomes.

- **Reflection**

This is the final stage where feedback is given on the success of the practical implementation of the developmental activities or actions that were used by individual principals at their schools. In this stage members of the network are encouraged to become reflective practitioners and to provide a platform for feedback and best practices. It is also the stage in which each principal must take time to reflect on his/her own development and in which areas improvement are still necessary.

The four stages combine with the different components of the Network Framework for Professional Development (NFPD). The first stage (Orientation) links to the component of establishing a network. The second and third stages (Application and Execution) link to the second component in the framework, namely managing a network. The last stage (Reflection) can be connected to the third component of the framework, i.e. sustaining a network. These four stages need to be used in conjunction with the three components as set out in the NFPD (table 6.1) for completeness and comprehensiveness.

It is advisable that these four stages should be implemented over a period of at least two years to provide sufficient time for development to take place. It is further suggested that network members meet face-to-face at least once every quarter to engage each other and report on the progress in achieving the developmental objectives. The time-period of two years will provide ample time for network participants to gain new insights, form new perspectives and to change their way of doing things at individual schools. This will result in professional development in the areas that were performed by the network. It is also recommended that all network members should be connected via the internet and mobile device applications (social media), e.g. e-mail, *WhatsApp*, *Facebook*, *Twitter*, etc. (par. 2.2.4.1). This will ensure regular contact and will have the added value that information and practical advice can be shared between members and is easily and consistently available.

In developing and promoting the framework a number of issues emerged. There were positive and negative aspects linked to the network framework. In the following two sections there will be a discussion of the benefits and limitations of the presented framework for networks.

6.5 ADVANTAGES OF THE FRAMEWORK

As was indicated earlier, the Network Framework for Professional Development (NFPD) can be beneficial if used appropriately and continuously. The following advantages are associated with the network framework:

- Learning networks in different areas, circuits or districts can be established and engaged in.
- Good professional practice can be established, shared and promoted.
- Professional growth can be achieved by using subject and field specialists as mentors.
- Value can be added towards principals' professional development.
- The framework's professional development activities can be extended to School Management Teams (SMTs).
- The framework can ultimately lead to school improvement and be used as a turn-around strategy for schools.
- The framework can be used to achieve life-long learning for its participants.
- The framework can be used for different network types, as is needed according to the purpose and aims of the specific network (par. 2.2.3.2).

The framework can also be used by clustering principals from performing schools with principals from underperforming schools. (Clustering as network type was discussed extensively in par. 2.2.3.2). The "developed" principal can act as a mentor to the "less developed" principal. The purpose of this clustering is that experiences and good practice should be shared over a certain period of time in order to achieve certain developmental goals. It can also improve productivity in some schools and is especially significant in South Africa with its diverse population and diversity within the education system (par. 3.6). It can ultimately lead to a general raise in the standard of education in a specific area.

The benefits that each participant in a network will achieve through the framework will be different and solely depend on the set objectives, situation and the individual member's approach in engaging the network. The framework can also have limitations when forming networks. This issue will be discussed next.

6.6 LIMITATIONS OF THE FRAMEWORK

The challenges of forming networks, as was discussed in the literature chapters, link closely with the limitations that the framework for networks might present (par. 2.3.1.2). The main concern in using the NFPD is that a full appreciation of the framework for networks is only possible for those with a clear understanding of the ideas and concepts on which they are based. A different understanding of the concepts of networking, that principals indicated, was also one of the main challenges in using networks for professional development. This matter should be thoroughly addressed before engaging in a network.

The framework also doesn't make provision for the following challenges that might occur in networks:

- The recognition of a common vision and general stance on development questions by participants.
- Misunderstanding and disagreement between members on developmental issues, although much of this issue can be resolved by clear communication.
- Power conflict or a lack of leadership within the network.
- Equal commitment from each participant towards the network and the objectives of the networks.
- The variation in the way that individuals experience the development activities in the network.
- Each participant's attitude towards learning, development and networking in achieving the objectives.
- Exclusivity in forming the network, without realising that external input is needed for growth and development.
- The lack of diversity in the network and not taking diversity issues into consideration.
- Personal assumptions and belief systems of network participants.
- Ambiguity and indecision in the network.
- The strength and intensity of development that are achieved by network members.

These are just some of the limitations that the NFPD can have. It is not always possible to predict the way in which participants will react within the network. In order to prevent or overcome most of these challenges, clear communication channels have to be established between the members of the network. It is also important that each network participant understand the objectives of the network and adhere to the common vision of the network.

Furthermore, each network member has to appreciate and understand his/her role within the functioning of the network.

The framework's success towards forming networks for professional development of principals will ultimately be dependent on the specific network members' implementation of the strategies and the willingness to adapt within the guidelines of the framework, in order to achieve personal, professional and school development.

6.7 SUMMARY

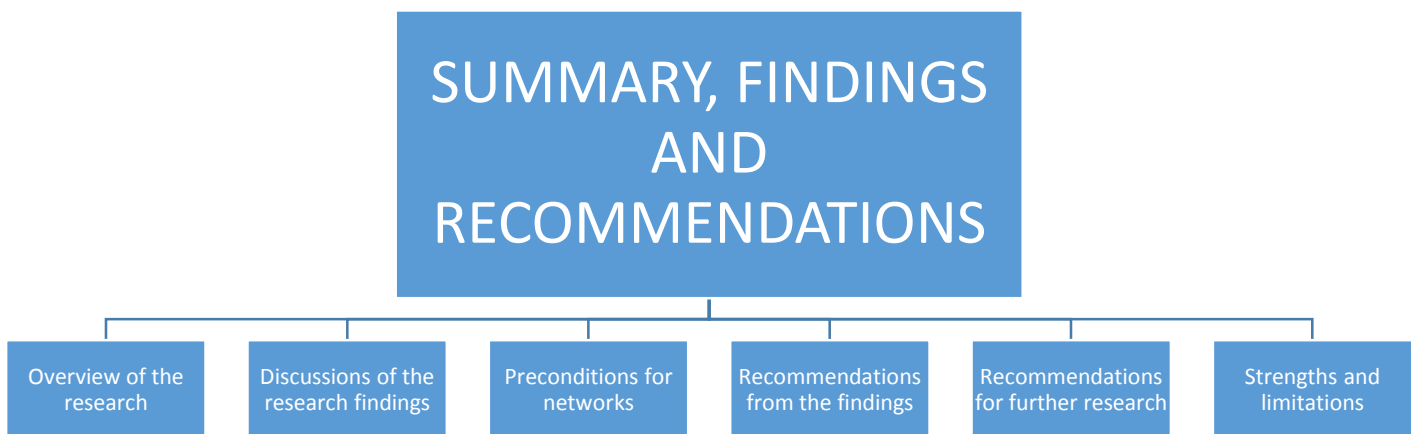
In this chapter, a Network Framework for Professional Development (NFPD) for establishing regional and school-based networks for the purpose of professional development of school principals in diverse contexts was developed. The framework provides a foundation for school principals to work from in establishing, managing and sustaining successful functioning networks. Before engaging in a network, careful consideration need to be taken, otherwise it will not be sustainable. If a network starts off with the right approach the probability is good that the network will achieve its goals. On the other hand, if all network members do not understand their roles and responsibilities and fully pledge towards the network's objectives, it might create disorder and confusion within the network.

If managed correctly, the network framework can hold many advantages for principals and can assist them in their own personal– and professional development endeavours. It can also be valuable towards general school improvement. However, there are also a few limitations of the framework that have to be kept in mind when using it.

In the following chapter, a summary of the previous chapters will be provided and conclusions with regard to the different research aims, as stipulated in Chapter 1 (par. 1.4.2) will be drawn. Recommendations forthcoming from the research findings will also be made.

CHAPTER 7

SUMMARY, FINDINGS AND RECOMMENDATIONS



7.1 INTRODUCTION

The aim of this chapter is to present an overall summary of the research study. The purpose of this research study was to investigate networks for the purpose of the professional development of school principals and eventually to develop a framework for establishing, managing and sustaining functioning networks. This study focussed on these aspects, particularly as it is presented in diverse contexts.

The first part of the chapter will offer a summary of the different chapters of this research report. The chapter will also provide a summary of findings, in relation to the research aims, as it surfaced from the acquired data in chapter 5. The next part of the chapter will provide recommendations and shortcomings regarding networks for professional development. Lastly, there will be a discussion in which recommendations for further studies relating to networks and professional development of school principals will be made.

7.2 OVERVIEW OF THE RESEARCH

- **Chapter 1: Orientation**

The context, the problem statement as well as the motivation for the study were discussed in chapter 1. Key concepts and relevant terminology were also clarified. The literature overview was done in three parts to substantiate the research problem. The divisions for the literature overview were concept description, network leadership for professional development and the development and management of networks. With this in mind the formulation of the purpose of the study and the research questions and aims were formulated. The research design and methodology, a discussion of how reliability and validity was secured, an explanation of the contribution of the research as well as ethical considerations also formed part of the chapter. The chapter ended with an analysis of the chapter division of the research report.

- **Chapter 2: Conceptualising networking**

Chapter 2 was the first of the two literature chapters that formed the theoretical basis for the research study. In this chapter, a discussion was done on what the existing literature expresses regarding networks and networking. The main aim of this chapter was to develop a better conceptualisation of what networking entails. It started with a discussion about the theory of networks, which included the clarification of the concept, a look into the characteristics of networks and a discussion of network structures as well as the different functions of networks. A further discussion followed about the network process. The three

components of the network process: establishing, managing and sustaining a network were examined and a fundamental framework for networks was provided. The chapter was concluded with a deliberation of the value of the usability of networks in education.

- **Chapter 3: Leadership and professional development of principals**

Chapter 3, together with chapter 2, formed the theoretical framework for the empirical study of this research. The main objective of this chapter was to gain insight in the existing literature on leadership and professional development. The chapter started with a general discussion on leadership including aspects like the definition, leadership tasks, leadership styles and what effective leadership requires. The following part of the chapter focussed on leadership in education by looking at education management tasks, abilities and skills. The discussion that followed concentrated on network leadership and its usability towards the professional development of principals. The focus then shifted to professional development opportunities of principals in South Africa. The chapter was completed by investigating networks in diverse contexts.

- **Chapter 4: Research design and methodology**

Chapter 4 concerning the research design and methodology focussed on the empirical section of the study. To begin with, the context of educational research and purpose of the empirical section was clarified. The research method for the quantitative and qualitative sections was explained. Subsequently, all the aspects of the questionnaire were discussed. It included subdivisions such as principles for developing a questionnaire, construction of the questionnaire as well as reliability, validity and statistical analysis. The chapter ended with a description of administrative procedures and ethical aspects of the study as part of the discussion.

- **Chapter 5: Reporting and interpretation of data**

In chapter 5 the statistical information that emerged from the questionnaires completed by the respondents was subsequently analysed and interpreted in correlation with the topic of the research project as part of chapter 4. The findings of the research were explained in two sections, namely quantitative and qualitative. In the quantitative section the biographical and general information about the respondents were described. The data was further analysed and was described by means of constructs and effect sizes to look for practical significant differences in relation to some of the biographical information that was derived from the questionnaires. The main objective of the qualitative section of the research was to obtain personal associations and interpretations of the aspects networking and professional

development, through further responses of the respondents. The findings of the techniques used in this chapter were also explained and discussed.

- **Chapter 6: Networks for the professional development of school principals in diverse contexts**

The intention of chapter 6 was to develop, explain and illustrate a framework for establishing networks for the professional development of school principals in diverse contexts. The chapter started with a discussion on the rationale for the framework, which included aspects like justification, purpose and key features of the framework. The framework was then presented and explained. There was also a discussion on the stages of the implementation of the framework. The chapter was concluded with a brief description of the benefits and limitations of the network framework.

7.3 DISCUSSION OF THE RESEARCH FINDINGS

This section of the work concludes the findings of the research the way they have been mentioned under the research aims of the study (par. 1.4.2). Findings of this research were concluded from both the literature study and the empirical study. Findings in relation to the different research aims are presented below.

- **Research aim 1: To determine the nature and significance of networks and networking in an educational leadership context**

The concept of networking is a phenomenon that has been extensively explored in the past two decades, mostly in a business sense. There are some evidence of networks that are used in education for developmental purposes. The general definition of networks has to do with the cooperation of groups of people and organisations through certain systems and processes. Networking can be described as the act of sharing and exchanging ideas, information and services between people and organisations (par. 1.2 & 2.2.1). From the literature sections of the study it was also concluded that networks come in many forms and types and that each network has its own characteristics and functionality, although there are certain universal characteristics that most networks possess (par. 2.2.2; 2.2.3 & 2.2.4). Networks in education are mostly being used towards enhancing organisational capacity and improved teaching and learning (par. 1.3.1). From the literature chapters it was also derived that networks can successfully be utilised towards personal and professional development of individuals, but a

structured developmental approach is required (par. 2.2.1; 2.2.5 & 2.4.3). Networks in education also take different forms and can have advantages, but also challenges for its users (par. 2.4; 2.4.3 & 2.4.4). Therefore, networking needs to be systematically planned for it to be of value for educational leaders (par. 2.5 & 3.4.2).

It has emerged from the empirical study that there was a difference in the respondents' interpretation of and association with networks and networking (table 5.9, par. 5.2.5.4; table 5.11, par. 5.2.5.6 & 6.3.2). Respondents' personal associations and interpretations of networking also show a relationship with the quantitative data (table 5.12, par. 5.3.1). Most of the respondents' responses included phrases such as professional groupings for professional development, technological communication, sharing of ideas, information, knowledge and resources towards common goals, creating a positive attitude and involvement with stakeholders (table 5.12, par. 5.3.1). The different views of the respondents illustrate the fact that networking is a complex and wide-ranging phenomenon, which needs to be considered to provide a structured system towards the use for development. Consequently, networking towards the professional development of educational leaders needs to be examined to provide in professional development solutions.

From the preceding literature overview, as well as the respondents' views on networks and networking, the following definition of networking in an education sense are formulated by the researcher (par. 2.2.1):

“The collaborative approach of individuals in the education system, with the main purpose to make a collective attempt, to firstly develop individuals' skills and competence and secondly, to increase the capacity of the school by sharing information, ideas and responsibilities in order to improve all aspects of the individual schools mutually”.

- **Research aim 2: To explore and describe what professional development for educational leaders entails**

Effective leadership and management are key factors attributed to the success of any organisation (par. 3.2.1 & 3.2.2). Therefore, all leaders, also educational leaders, need to have certain skills and qualities that have to be developed and

practiced towards effectiveness. According to the literature on leadership, these attributes include, i.e. to provide direction, to offer inspiration, to set an example and to build teamwork in an organisation (par. 3.2.3). Educational leaders have to understand and develop these attributes towards school improvement and general advancement of the education system. Furthermore, they also need to understand different leadership styles in order to assess their own dominant leadership style. This can assist them in developing aspects linked to other leadership styles that can make their own leadership more effective (par. 3.2.4).

To be effective as a leader, one needs to look continuously at new ways and approaches to improve him-/herself for the good of the organisation. In the light of the above, the continuous professional development of school principals is viewed by many as an important aspect of school development (par. 3.5). However, in the South African education system the opportunities for the professional development of school principals are limited, uncoordinated, fragmented and sometimes irrelevant (par. 2.4.2.1; 2.4.2.2; 3.5.1 & 3.5.2). This has resulted in the fact that many principals are responsible for their own professional development. According to the literature, networks are seen by many authors as a powerful development method that are already used with success in other countries and that can be useful towards the professional development of principals in South Africa (par. 3.5.3). Educational leadership in South Africa can be developed through collaboration and cooperation, but the inadequacies of the development programmes in which they are presented need to be structured (par. 3.5.4).

From the study it has emerged that almost a third of the school principals that participated in the study have not attended any kind of professional development activity in the past two years (table 5.3, par. 5.2.2). This coincides with the facts from the literature, as was discussed above, that opportunities for professional development of school principals are limited and uncoordinated. The data from the study further implied that school principals use a variety of methods to develop themselves professionally. These methods include, e.g., departmental systems (Integrated Quality Management Systems (IQMS) and Continuing Professional Teacher Development (CPTD), further studies and attending conferences, meetings and workshops, etc. (table 5.3, par. 5.2.2). In view of the importance of the continuous professional development of school principals, as described in the

literature, the data revealed that opportunities for development are not always available, accessible and relevant. Another aspect that was highlighted by the study is that not all principals are taking full responsibility for their own development.

- **Research aim 3: To ascertain the concept of network leadership and its contribution towards professional development in relation to education**

As indicated in the previous section, networking can be successfully used towards the professional development of school principals. Educational leaders need to recognise the complex nature of their work and realise the importance of the development of leadership and management skills. It was also previously mentioned that networks can assist them with this matter as they can be skilled in leadership to forge and maintain linkages to build partnerships with relevant stakeholders (par. 2.3.1.3).

The term network leadership came to the fore from the presented literature (par. 1.3.2; 3.1; 3.2.4 & 3.4). Network leadership has to do with influencing external and internal stakeholders to work collaboratively within a network framework towards the success of the individual and the organisation (par. 3.2.4 & 3.4.1). The following advantages of network leadership, amongst others, for professional development are presented: benchmarking, interaction, flow of expertise, sharing of resources, innovation, etc. (par. 3.4.2). Network leadership can contribute towards professional development in an educational leadership sense, as long as network leaders understand the complexity of the collaborative structures of networks and the challenges that might arise when engaging in networks (par. 3.4.2 & 3.4.3).

An analysis of the effect sizes uncovered that most respondents view the professional advancement of networking as important, although the different groupings had different views on this issue (par. 5.2.5). Questions that are part of this construct concerned issues such as involvement in professional bodies and union activities, creating professional links with other principals and connecting with other principals for assistance, etc. (table 5.2, par. 5.2.1.2 & Annexure A). What the data in this study further revealed is that the respondents agree with the literature about the advantages of network leadership, e.g. interaction, sharing ideas and information, flow of expertise, etc. (table 5.12, par. 5.3.1). As was

discussed in the first aim, the results from the qualitative data showed that, in most cases, principals view networking as something that can be used towards their own professional development and that can be used for school improvement.

After taking into account the literature overview, as well as the respondents' views on networks and networking the following definition of network leadership, significant to education, is formulated by the researcher:

“The establishment of an environment in which one or more educational leader directly or indirectly influence others positively by creating a network structure in which others can develop individually and to collaboratively meet the aims and objectives of the individuals and the group.”

- **Research aim 4: To conduct an investigation into the management of networks and networking by educational leaders in diverse contexts**

The literature chapter of this study revealed that networks for professional development does exist to some extent in other countries, but not in a broader sense in South Africa (Kiggundu & Moorosi, 2012; Bush *et al*, 2011; Mathibe, 2007; Van der Westhuizen & Van Vuuren, 2007) (par. 3.5.3). The management of networks in education is limited and are used in the form of *Professional Learning Communities (PLCs)*, *Networked Learning Communities (NLCs)* and *Communities of Practice (COP)* (par. 1.3.3; 2.2.3.1; 2.3.1.3; 2.3.1.4 & 3.4.1). These groups or networks are used widely in countries like the USA and UK, but it functions on the level of teaching and does not always involve leadership activities. Networks for educational leaders are also not widely used in South Africa and where it is utilised there are no scientifically-proven management plan for using it for the development of principals. What is important to note from the literature, is that networks need to be established, managed and sustained over time for it to be effective (par. 3.5.4). Therefore, a definite management framework is needed to establish and manage networks that can be successfully used for the professional development of school principals (par. 1.1).

From the literature it is also clear that diversity manifests in society and therefore also in schools (par. 3.6). There are many diversity aspects that can influence schools and the professional development of school principals through networks (par. 3.6). It can be derived from literature that diversity aspects need to be taken

into account when engaging in networks. Diversity should be managed by using the differences of individuals to good effect to promote the common goals of the network (par. 3.6). There are also many barriers that can have a negative influence on networks and can be either internally or externally motivated and should be effectively managed by educational leaders to promote the operation of a network (par. 3.6). Participants of a network need to develop ways and ideas on how to deal with issues of diversity that might have a negative impact on individuals in networks.

It has emerged from the study that diversity exists in the study area. Participants were from different cultural backgrounds and racial groups (par. 5.2.2). Participants were also from schools in different socio-economic circumstances with most schools that are situated in a low income area (par. 5.2.3). The data further revealed that the aspects of diversity that have the most influence on networks for professional development of school principals were differences in ages of school principals, the prevalent socio-economic situation of the school, home language of school principals, differences in education levels and cultural differences (par. 6.3.2). These results were supported by the quantitative data that emerged from other sections of the questionnaire (par. 5.2.5). The literature (Muijs *et al.*, 2011; Evans & Stone-Johnson, 2010; Wohlstetter & Smith, 2000) supports the opinion that principals that are part of schools in rural and lower socio-economic areas are unlikely to take full advantage of being part of a network due to a lack of resources and distances from other schools (par. 2.3.1.2). Language ability can also be obstructive towards network activity (par. 3.6).

The qualitative data that transpired from respondents' personal viewpoints, as captured in the open-ended questions, also support the above opinion, where a lack of resources and ICT facilities and training, as well as diversity issues like culture, age and home language were provided as reasons for not being involved in networks (par. 5.3.2). Other challenges for networking that respondents indicated were physical challenges, e.g. distance, time, etc. and fear to become involved because of a lack of knowledge on the functioning and advantages of networks (par. 5.3.2). The significance of this data is that it reveals that diversity issues like socio-economic problems and a lack of resources can influence the functioning of networks, thus resources and training will have to be provided for in these areas before proper networking will be able to take place.

Research aim 5: To develop a management framework for regional and school-based networks as part of the professional development for school principals in diverse contexts

As was discussed in the previous section the establishment, management and sustainment of networks are paramount if it is to be used for development purposes. It was also previously noted that there are no clear structure or guidelines on how to implement networks that can be used towards the professional development of school principals. Thus, the Network Framework for Professional Development (NFPD) was developed that can be utilised by principals for the above purpose (table 6.1, par. 6.3.1). The framework should not be seen as a recipe or one-size-fits-all approach to networking, but can be used to address or to accommodate the individual needs and objectives of the principals that are part of the network.

The NFPD should be implemented in four stages to ensure consistent development and to reach the network's aims. These stages are orientation, application, execution and reflection (par. 6.4). The stages for implementation also link closely with the components of the NFPD to ensure comprehensiveness.

The data analysis on the effect sizes (par. 5.2.5) revealed that there are certain factors that need to be taken into consideration before engaging in the NFPD as principals had diverse views on networks and networking. These factors are (par. 6.3.2):

- Differences in years' experience of principals
- Age of principals
- Difference in education levels of principals
- Type of school in which the principal is employed
- Area in which the school is situated
- Diversity related challenges

There are also certain preconditions that need to be adhered to when establishing, managing and sustaining networks. These preconditions will be discussed in more detail in the following section.

7.4 PRECONDITIONS FOR NETWORK ESTABLISHMENT, MANAGEMENT AND SUSTAINMENT

In this section certain preconditions for establishing, managing and sustaining functional networks for professional development of school principals will be discussed. These preconditions were developed throughout the literature section and as they emerged from the empirical study of this research.

7.4.1 Preconditions

When taking into account the literature as well as the results obtained from the empirical study, the following preconditions need to be adhered to before engaging in functional networking:

- Network membership should be based on voluntarism, whereby each network member wishes to contribute towards the goals of the network (par. 2.2.3.1; 2.4.4 & 5.3.1).
- A common vision and purpose should be shared by all network participants. This is probably one of the greatest challenges that can prevent a network from functioning. (par. 2.2.2; 2.3.1.2; 2.3.3.3; 3.2.3 & 5.3.1).
- The attitude and intentions of all network participants towards networking need to be appropriate and virtuous. Trust is the foundation on which any network is built and should be strived for at all times (par. 2.3.1.1; 2.3.1.2; 3.2.3 & 6.6).
- Mutual reciprocity needs to be understood. A network works on the basis of give and take. If some network members bring nothing to the table it can prevent other individuals in the network to share innovative ideas and knowledge (par. 2.2.2; 2.3.1.1; 2.3.3.3 & 5.3.1).
- Ownership of the network should be taken by all members to fulfil roles and responsibilities that are needed from them (par. 2.2.3.1; 2.3.1.2; 2.3.2.3; 2.4.4; 3.2.3 & 5.3.1).
- Network members should all agree to active collaboration and participation (par. 2.2.3.1; 2.2.3.2; 2.3.1.1; 2.3.2.3; 2.4.4; 3.4.2; 3.4.3 & 6.6)
- Network members should all understand the concept of networking and its functioning (par. 2.3.2.3; 2.3.4; 3.4.3 & 6.6).
- Clear communication channels need to be developed and adhered to. Communication is viewed by many as an essential component for network effectiveness (par. 2.2.2; 2.3.1.2; 2.3.2.2; 2.3.2.3; 2.3.3.2; 2.3.3.3; 3.2.3; 3.4.2 & 6.6).
- Consideration of diversity aspects and acceptance of differences between participants in the network will bring about more opportunities for development (par. 2.2.2; 2.3.1.1; 2.3.2.2; 2.3.2.3; 3.4.3; 3.6 & 5.3.2).

- Embracing and using diversity factors to the benefit of all participants will ensure a deeper cognitive understanding of other individual's fears, thoughts, views and opinions (par. 2.3.1.1; 2.3.2.2; 2.3.2.3; 3.6 & 5.3.2).
- Coordination, monitoring and evaluation of interactions and activities must take place regularly to ensure that development takes place and for the longevity of the network (par. 2.2.2; 2.3.2.2; 2.3.2.3; 2.3.3.3 & 3.4.2).

7.4.2 Synthesis

Networks have certain characteristics and need to be established, managed and sustained in a proper way if it is to be used effectively. Networks are widely used outside of education for developmental purposes, but its use in education towards professional development is limited and lack structure.

The professional development of educational leaders is an important aspect of any education system to provide the necessary impetus for effective teaching and learning and contribute to general school improvement. The professional development opportunities for South African school principals are limited and mostly uncoordinated. Thus, networking is a method that educational leaders can use for professional development matters.

There are certain aspects that need to be taken into account when engaging in networks. Diversity aspects, in a country like South Africa, are relevant and should be considered and managed when working with individuals from different backgrounds. Lastly, it is important to embrace diversity for the benefit of all involved.

7.5 RECOMMENDATIONS FROM THE FINDINGS

As a result of the literature study and the findings of the empirical study, the following recommendations are proposed:

- **Recommendation 1: Principals need to realise the value of professional development**

School principals have to realise their obligation to the school they are employed in and the education system as a whole – to provide quality teaching and learning for the learners for them to one day make a difference in their communities. Therefore, it is also important that school principals realise the value of professional development

and that it can result in better leadership abilities and skills, personal job satisfaction and ultimately lead to school improvement (par. 3.5).

- **Recommendation 2: School principals need to understand the concept of networking**

Networks can be used for principals' professional development, but networks need to be recognised, understood and valued if it is to be used for professional development purposes. Therefore, school principals have to be educated about the concept of networks and networking to show its value towards professional development. This can be done by sharing information through workshops, seminars and through studies at higher education institutions. It is also the responsibility of advanced and experienced school principals to inform, coach and help other principals to develop networking skills (par. 2.3.2.3; 2.3.4; 3.4.3 & 6.6).

- **Recommendation 3: Network members must get to know each other and strive to gain each other's trust for effective networking to take place**

To be able to establish a functioning network the members of the network have to share common purposes, views and objectives. Opinions may differ, but the ultimate objectives of the network should be shared. Mutual reciprocity is also a prerequisite for proper networking. This can be achieved by involving all network members when drawing up the objectives and handing out the roles and responsibilities in the network. There should be openness between the members of the network. This can only be achieved if trust is developed between the members of the network. To gain mutual trust, as much information possible have to be obtained about each network member. Information should specifically focus on the socio-economic situation, language ability, literacy levels and cultural differences of the network members, as all these factors can present as challenges for effective networking. Information can be obtained formally or informally. Formal information can be obtained by means of a short questionnaire or survey about the biographical details of each member. It is also important to meet informally to get to know other network members. This can be done through face-to-face informal gatherings and conversations to build relationships based on integrity and trust that can be a valuable source of information regarding network members, what to expect from each member and how to consider each member (par. 2.3.1.1; 2.3.1.2; 3.2.3 & 6.6).

- **Recommendation 4: Networks need to be established by taking into account professional interests and roles**

When networks are first established there must be an agreement on the type and purpose of the network. In this case, to present certain professional development activities for school principals. This can be achieved by taking a process- and result-orientated stance towards networking. Networks should be established by taking into account professional interests and professional roles. For example, it can work to the benefit of principals with similar developmental interests and those from schools with a similar vision to form a network. By using each other's individual knowledge and skills, developmental objectives on aspects of leadership and management, e.g. finances, discipline, human resources, etc. can be attained (par. 2.2.2; 2.2.3.1; 2.3.1.1; 2.3.1.2; 2.3.2.3; 2.3.3.3; 2.4.4; 3.2.3 & 5.3.1).

- **Recommendation 5: Network leadership need to be shared to prevent power conflict**

Leadership in a network can also be a challenge. A lack of leadership can lead to power conflict and network disequilibrium. To prevent leadership struggles and enhance power relations it is important that network leadership should be shared and alternated for everyone to get the opportunity to develop network leadership skills. This can be done by alternating leadership for a certain period of time. Alternatively, members of a network can take leadership roles on certain aspects that are done in the network, depending on their own strengths. This will ensure that members learn from the strengths of others and tap into the existing body of knowledge in the network (par. 2.2.3.1; 2.3.1.2; 2.3.2.3; 2.4.4; 3.2.3 & 5.3.1).

- **Recommendation 6: Diversity aspects need to be taken into account and embraced within a network**

Diversity aspects need to be taken into account when dealing with individuals in a network. Diversity aspects that have a great deal of influence on networking for principals seem to be age differences, different education levels, differences in years' experience, home language, involvement in schools from different socio-economic areas and the type of school where the principal is employed in. Network members need to involve others in the network so that they can contribute positively to the obtainment of the network aims and for their own professional development. Approaches that can be used are to involve everyone by awarding tasks and activities to all participants and by sharing responsibilities for the work of the network. This could lead to a change in attitude and a feeling of

achievement and a belief of being part of the network. Self-confidence will also be enhanced by these actions, which in turn could lead to better participation in other divisions of the network. An approach of *us* and *with* rather than *me* and *to* must be exercised in a network. With this strategy, members will realise that everyone is obliged to become involved in the affairs of the network. Specific fears to become involved should also be addressed and network members should be taught and persuaded to discharge of their fears for networking and to develop a sense of mutual trust. Other network members should make sure that everyone involved in the network is comfortable with the functioning and objectives of the network. This will help to settle any fears or uneasiness towards networking (par. 2.2.2; 2.3.1.1; 2.3.2.2; 2.3.2.3; 3.4.3; 3.6 & 5.3.2).

- **Recommendation 7: Clear communication is paramount for network success**

Effective communication between members of a network is very important. Clear communication channels need to be established as soon as a network is formed. Methods that can be used for communication are regular face-to-face meetings, a newsletter and technology, i.e. e-mail and social media groups. This will ensure quick and accessible communication and the sharing of information. It is also important that communication lines are established with external stakeholders to acquire capabilities and expertise from external organisations. Strategies that can be used include invitations to specialists and experts on certain subjects relating to professional development, e.g. businessmen and other schools or networks for benchmarking and to gain important insights on developmental matters (par. 2.2.2; 2.3.1.2; 2.3.2.2; 2.3.2.3; 2.3.3.2; 2.3.3.3; 3.2.3; 3.4.2 & 6.6).

- **Recommendation 8: Networks' objectives should be aimed at the individual members' professional development needs**

A network's main aim has to be to develop its members. All activities rendered should be aimed at the professional development of the school principals in the network. Ample opportunities must be provided for professional development. The activities should be aligned with the professional needs of the members of the network. Regular feedback sessions should also be provided to assess the network's effectiveness and to track the progress of individual's development. Recognition of involvement, development and goal-attainment is also a strategy that can be used to enhance network participation. Rewarding initiatives for positive inputs and the achievement of goals can be employed. This can take the form of award ceremonies,

certificates, vouchers from sponsors, etc. (par. 2.2.2; 2.3.1.2; 2.3.3.3; 3.2.3; 3.4 & 5.3.1).

- **Recommendation 9: The Network Framework for Professional Development (NFPD) should be implemented according to the individual network's objectives**

It was highlighted earlier that it is important that network establishment should be structured for it to serve its purpose towards professional development of school principals. Therefore, the Network Framework for Professional Development (NFPD) was established. It is recommended that the Network Framework should be implemented appropriately, taking into account the individual network's objectives and circumstances, to ensure that the network serves its purpose (par. 6.3 & 6.4).

- **Recommendation 10: Educational leaders in South Africa should take responsibility for their own professional development**

The last recommendation that can be highlighted, as it emerged from the study, is that all educational leaders should take responsibility for their own professional development, although the education department should also play a leading part to ensure that all school principals have the necessary skills and attributes. If all principals mutually take responsibility for professional development through networks, it can ensure that high quality teaching and learning takes place in schools. Ultimately, this will increase the capacity of the whole South African education system and realise the goals of quality education for all learners (par. 3.5 & 5.2.5).

7.6 RECOMMENDATIONS FOR FURTHER RESEARCH

The purpose of this study was to establish a framework for networks that can be used for the professional development of school principals in diverse contexts. It is recommended that further research studies could be undertaken in the following fields and with the subsequent focus:

- The perception and understanding of educational leaders on networks and networking.
- The required capacity of educational leaders to facilitate effective networks and networking.

- Professional development needs of school principals in different socio-economic areas, e.g. rural, semi-rural, urban, etc. could return different requirements and expectations from principals.
- A similar study in urban surroundings could yield interesting and different results that can be compared to this study.
- A similar study focusing on other educational leaders (middle management), e.g. deputy principals, heads of department, heads of grades, etc., for the purpose of professional development.
- Mentorship of less experienced principals by experienced principals.
- Challenges and barriers towards professional development.
- The influence of diversity on the effectiveness of networks.

7.7 STRENGTHS AND LIMITATIONS OF THE RESEARCH

Although all the research aims of the study were met and recommendations made, the following shortcomings were found in the study, notwithstanding the fact that strategies were employed to minimise the possibility of any limitations.

- The findings are only relevant to rural areas, for the study was done in this type of surroundings, thus it can only be generalised to the purpose which it was designed for.
- The survey was only done in public schools and can therefore not be applied to other types of schools, e.g. private and non-governmental schools.
- All principals of schools in the survey area didn't participate in the survey or didn't return their questionnaires in time, although many appropriate control measures were put in place (par. 4.7.1 & 4.7.2). These measures included clear and uniform instructions given to respondents for the completion of questionnaires, personal contact with respondents and follow-up actions to non-respondents for the completion of questionnaires. The fact that not all schools participated in the study was disappointing to the researcher as all inputs would have been appreciated for the purpose of this study.
- Administrative difficulties and distances from the researcher's office made the response rate of the questionnaires lower than was anticipated by the researcher. The response rate of 39.1% is however acceptable to support the validity and reliability of the research (table 4.2; par. 4.7.2).

- The questionnaire was only available in English. Given the fact that only 1 respondent indicated that their home language is English, other languages, i.e. Afrikaans, Sesotho and IsiZulu, could also have been used (par. 5.2.2). Having said this, all the respondents were school principals and are educated to some degree. All verbal and written communication from the education department is also only available in English, thus principals' language proficiency should be of a decent standard.
- Other possible influences in the survey, especially when completing the questionnaires, could not be controlled and can therefore not be excluded.

The implementation of the strategies, as presented above, improved the validity and reliability of the research study. Therefore, the overall credibility of the research was ensured.

7.8 CONTRIBUTION OF THE RESEARCH

The contribution of this research study aims to enhance educational leadership through the creation of sustainable networks for capacity building of school principals and other educational leaders. In using networks for the professional development of school principals, quality teaching and learning can be secured. Furthermore, this research provides a scientific basis for the implementation of networks for professional development purposes and contributes to the current body of knowledge concerning the establishment and management of networks in education.

The Network Framework for Professional Development (NFPD) that was developed can be used as a framework for principals and educational leaders in general, to activate, build, maintain and manage networks towards school improvement. The framework can be useful for initialising and managing networks for the professional development of educational leaders in diverse contexts to improve leadership of individual schools.

7.9 CONCLUSION

This study has outlined the aspects of networks and networking that can be utilised for the professional development of school principals. This study has also revealed that professional development activities for principals in the South African education system are limited and not coordinated well and that principals are mostly responsible for their own development.

Therefore, educational leaders must take into consideration that networks can be effectively used for their own professional development, as long as it is structured and commenced in the right way. Therefore, educational leaders must take into account the strategies for effective networking that can build capacity in schools.

It is entrusted that the development of a framework and the recommendations made in this research will assist principals to understand what networks and networking entails. It is also hoped that educational leaders will realise the importance of continuous professional development and life-long learning. Furthermore, it is expected that principals will be assisted in using networks for their own professional development endeavours. Finally, it is trusted that this study will contribute towards the professional development of school principals in diverse contexts, which will eventually lead to individual school improvement and a more effective education system in South Africa.

7.10 REFLECTION ON THE RESEARCH

When reflecting on the research, there were some issues that arose. After more than two decades of democracy there still seem to be a huge discrepancy between schools. Most of the schools in the study area have low socio-economic circumstances, with its associated challenges, e.g. poverty, lack of resources, illiteracy, etc. Many principals do not engage in continuous professional development activities due to a number of factors like geographical and time constraints, lack of knowledge and resources, unwillingness, etc. This is a major concern for the researcher.

What was also noticed is that there are still individuals who are reluctant to work over boundaries to embrace diversity issues. What is worrying is that it seems to be younger principals that consider it to be challenging more than older principals. It seems that much still have to be done to convince people from different backgrounds, cultures and with different thought-processes that one can use diversity towards reaching a common goal.

The researcher enjoyed the research and believes that it was worth the while. Schools can benefit from the framework and recommendations that were made. It can be used to acknowledge, understand and take into account that networks can be used for the professional development of school principals in diverse contexts. Ultimately, this can lead to school improvement and quality education for all.

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ANNEXURES

SURVEY QUESTIONNAIRE

REGIONAL AND SCHOOL-BASED NETWORKS FOR PRINCIPALS IN DIVERSE CONTEXTS

DEPARTMENT OF EDUCATION: THABO MOFUTSANYANA EDUCATION DISTRICT
(TMED)
FREE STATE PROVINCE

Questionnaire number						
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Indicate your response with an **X** in the applicable frame.

SECTION A: BIOGRAPHICAL INFORMATION

For example:

Male	X (If you're male)
Female	

1 Gender?

Male	1
Female	2

2 Current position?

Principal	1
Acting principal	2

3 Years of experience in position?

1-3 years	1
4-6 years	2
7-10 years	3
11+ years	4

4 Age group in years?

21 - 30	1
31 - 40	2
41 - 50	3
51 - 60	4
60+	5

5 Population group?

Black	1
White	2
Coloured	3
Asian	4
Other(specify): _____	5

6 Home language?

English	1
Sesotho	2
Afrikaans	3
isiZulu	4
Other (specify): _____	5

7 Level of education / training?

High school education	1
Tertiary Education: Certificate	2
Tertiary Education: Diploma	3
Tertiary Education: Degree	4
Tertiary Education: Hons	5
Tertiary Education: Masters	6
Tertiary Education: PhD	7

8 Have you as principal attended professional development training / activities in the past?

Yes, recently (during the last 2 years)	1
No	2
Yes, but not recently (more than 2 years ago)	3

9 Which of the following professional development activities do you as principal make use of? (Mark **ALL** the applicable items.)

	Yes	No
9.1 Integrated Quality Management System (IQMS)	1	2
9.2 Continuing Professional Teacher Development Management System CPTD (SACE)	1	2
9.3 Further studies (academic, professional)	1	2
9.4 Workshops	1	2
9.5 Meetings	1	2
9.6 Conferences	1	2
9.7 Seminars	1	2
9.8 On-line short courses	1	2
9.9 Other: _____	1	2

SECTION B: GENERAL INFORMATION ABOUT THE SCHOOL

10 The number of learners in the school?

<100 learners	1
101-300 learners	2
301-500 learners	3
501-700 learners	4
701-900 learners	5
901-1100 learners	6
1101+ learners	7

11 The medium of instruction at the school?

Afrikaans (Afr)	1
English (Eng)	2
Sesotho (Ses)	3
isiZulu (Zul)	4
Dual medium – Afr/Eng	5
Dual medium – Eng/Ses	6
Parallel medium – Afr/Eng	7
Parallel medium – Eng/Ses	8
Other(specify): _____	9

12 The number of educators in your school?

1 - 5	1
6-15	2
16-30	3
31-45	4
46+	5

13 The prevalent socio-economic status of the area in which the school is located?

High income group	1
Middle income group	2
Low income group	3

14 The type of school?

Primary school	1
Secondary school	2
Combined school	3
Intermediate school	4
Foundation phase school	5
Special school	6
Other (specify) _____	7

15 The kind of school according to the area in which the school is situated?

Town school	1
Township school	2
Farm school	3
Other(specify): _____	4

SECTION C: CONCEPTUALISATION OF NETWORKING

For example:

	Almost no extent	Little extent	Some extent	Great extent
Networking is done on the internet	X (If it is your answer)			

16 To what extent do you, as the school principal, view networking as ...

		Almost no extent	Little extent	Some extent	Great extent
16.1	social interactions?	1	2	3	4
16.2	face-to-face interaction?	1	2	3	4
16.3	online interaction through mobile device applications?	1	2	3	4
16.4	online interaction through computer applications?	1	2	3	4
16.5	building contacts for future use?	1	2	3	4
16.6	valuable for communication purposes?	1	2	3	4
16.7	something that can be used to enhance performance?	1	2	3	4
16.8	part of formal structures?	1	2	3	4
16.9	can change over time?	1	2	3	4

17 To what extent do you, as the school principal, associate networks with ...

		Almost no extent	Little extent	Some extent	Great extent
17.1	inter (between) school relationships?	1	2	3	4
17.2	intra (within) school relationships?	1	2	3	4
17.3	a group of people working towards a common goal?	1	2	3	4
17.4	strong connections between people?	1	2	3	4
17.5	leadership development?	1	2	3	4
17.6	sharing expertise on a regular basis?	1	2	3	4
17.7	exchanging experiences on a regular basis?	1	2	3	4
17.8	voluntary association between people?	1	2	3	4

18 To what extent do you, as the school principal, perceive networking as ...

		Almost no extent	Little extent	Some extent	Great extent
18.1	an opportunity for support and assistance to other principals?	1	2	3	4
18.2	a sounding board for yourself?	1	2	3	4
18.3	an opportunity for skills development?	1	2	3	4
18.4	an opportunity for learning from others?	1	2	3	4
18.5	a way of problem-solving?	1	2	3	4
16.6	valuable for personal growth?	1	2	3	4
16.7	valuable for professional growth?	1	2	3	4
18.8	a means that can be used for school improvement?	1	2	3	4
18.9	conducive for the building of professional relationships?	1	2	3	4
18.10	an opportunity for professional development?	1	2	3	4
18.11	a requirement for professional development?	1	2	3	4

Any other personal association(s) / interpretation(s) of the meaning of networking?

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SECTION D: INDICATORS OF NETWORKING AND PROFESSIONAL DEVELOPMENT

19 To what extent do you, as the school principal, advance networking through:

		Almost no extent	Little extent	Some extent	Great extent
19.1	involvement in professional bodies?	1	2	3	4
19.2	involvement in union activities?	1	2	3	4
19.3	reading articles and journals on networking?	1	2	3	4
19.4	attending professional development opportunities such as conferences?	1	2	3	4
19.5	responding to requests from other schools?	1	2	3	4
19.6	socialising with other principals?	1	2	3	4
19.7	creating professional links with other principals?	1	2	3	4
19.8	connecting with other principals for assistance?	1	2	3	4
19.9	connecting with external individuals and organisations, e.g. business men and sponsors?	1	2	3	4
19.10	making use of the internet through mobile devices or computers?	1	2	3	4

20 To what extent does the school environment you find yourself in, presents opportunities in which principals can participate with respect to:

		Almost no extent	Little extent	Some extent	Great extent
20.1	Some form of a network?	1	2	3	4
20.2	Professional development activities?	1	2	3	4
20.3	Organising meetings, seminars or workshops for knowledge, resource and skill sharing?	1	2	3	4
20.4	Links with community partners, e.g. churches?	1	2	3	4
20.5	Partnerships with other stakeholders?	1	2	3	4
20.6	A network with other school principals?	1	2	3	4

21 To what extent do you, as a school principal, value the following requirements for establishing successful networks in education?

		Almost no extent	Little extent	Some extent	Great extent
21.1	Members must be from diverse backgrounds?	1	2	3	4
21.2	Members must have a supportive approach?	1	2	3	4
21.3	Members must subscribe to a clear purpose?	1	2	3	4
21.4	A clear strategy to promote networks?	1	2	3	4
21.5	Strong leadership?	1	2	3	4
21.6	Reciprocity (give and take) that is built on trust?	1	2	3	4
21.7	Clear communication channels?	1	2	3	4
21.8	Long-term professional development goals?	1	2	3	4
21.9	Aims at continuous professional growth?	1	2	3	4

22 To what extent do the following challenges of networking influence the potential of its value towards professional development?

		Almost no extent	Little extent	Some extent	Great extent
22.1	Cultural differences?	1	2	3	4
22.2	Age differences?	1	2	3	4
22.3	Gender differences?	1	2	3	4
22.4	Home language (Language of communication)?	1	2	3	4
22.5	Language of learning and Teaching (LoLT)?	1	2	3	4
22.6	Lack of time?	1	2	3	4
22.7	Lack of resources (such as knowledge, funds & ICT)?	1	2	3	4
22.8	Distances from other schools?	1	2	3	4
22.9	Inability to form functioning networks due to a lack of knowledge?	1	2	3	4
22.10	Lack of motivation?	1	2	3	4
22.11	Lack of commitment from other principals?	1	2	3	4
22.12	Lack of support from education authorities?	1	2	3	4

Any other comment(s) on challenges and how networks can be used for professional development and school improvement? Explain briefly each comment.

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Thank you for your time and cooperation in completing this questionnaire.

DIVISION AND NUMBER OF QUESTION ITEMS

Section A: Biographical information	1 – 9	Biographical information	(9)
Section B: General information about schools	10 – 15	General information	(6)
Section C: Conceptualisation of networking	16.1 - 16.9 17.1 - 17.8 18.1 – 18.11	Concept views Concept associations Concept perceptions	(28)
Section D: Indicators of networking and professional development networks	19.1 – 19.10 20.1 – 20.6 21.1 – 21.9 22.1 – 22.12	Advancement of networks Opportunities for networking Requirements for educational Challenges of networking	 (37)
			(80)

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CONFIDENTIALITY AGREEMENT

TITLE: A MANAGEMENT FRAMEWORK FOR REGIONAL AND SCHOOL-BASED NETWORKS FOR PRINCIPALS IN DIVERSE CONTEXTS

A network is defined as a system or process that involves a number of cooperating individuals, groups, places or organisations that are interconnected (Collins English Dictionary, 2013; Macmillan Dictionary, 2013; Webster's New World College Dictionary, 2013; Wordsmyth English Dictionary, 2013).

I, as the researcher, undertake that all the information acquired from the questionnaire will be handled with the strictest confidentiality. No information will be held against any participant to harm him/her in any way either physically, emotionally or socially.

ASmith

 A. Smith
 (Researcher)

2015-07-13

 Date

PARTICIPANT

I, as headmaster or acting headmaster of the identified school in the Thabo Mofutsanyana Education District (TMED), am conversant with the aim of the research as well as what is expected of me. I undertake to handle all matters that might arise during the discussion as highly confidential. I further undertake not to use information given during the research against any participant to harm him/her in any way either be it physically, psychologically, emotionally or socially.

Name of the participant

Signature of the participant

Date

North-West University Potchefstroom Campus
 Faculty of Education Sciences
 Private Bag X6001
 Potchefstroom 2520



NORTH-WEST UNIVERSITY
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Private Bag X6001, Potchefstroom
 South Africa 2520

Tel: (018) 299-1111/2222
 Web: <http://www.nwu.ac.za>

Tel (058) 303 4116: Researcher
 Fax (058) 303 4264: Researcher

Andre Smith
 PO Box 474
 BETHLEHEM
 9700

11 May 2015

Ms. B.S Tshabalala
 District Director
 Thabo Mofutsanyana Education District (TMED)
 Department of Education: Free State Province (FSDOE)

Ms. Tshabalala

Re: ASSISTANCE IN AND PERMISSION TO CONDUCT A RESEARCH STUDY IN THE THABO MOFUTSANYANA EDUCATION DISTRICT

I intend to conduct a research study for a PhD in Educational Management at the North-West University. The theme of the study deals with **A MANAGEMENT FRAMEWORK FOR REGIONAL AND SCHOOL-BASED NETWORKS FOR PRINCIPALS IN DIVERSE CONTEXTS** (see letter of the registration of the title attached).

I hereby apply for written permission to conduct the above mentioned research in the Thabo Mofutsanyana Education District (TMED). The research will be conducted in all the schools in the district. Assistance is needed in the provision of a list of all the schools in the district as well as with the sending out of the questionnaires to the schools.

The method of data collection includes the completion of individual questionnaires by each individual school principal at the selected schools. The questionnaires will take no longer than 10 minutes to complete.

I commit myself to the professional code of ethics for researchers which include among other:

Annexures

- participation is strictly voluntary
- necessary documentation e.g. permission and consent forms will meet the requirements as stipulated by the code of ethics for researchers
- anonymity and confidentiality are guaranteed
- no interference with the general and academic programme of schools
- any visits at school sites, if necessary, will only be conducted with consent and by appointment
- the findings of the research will be made available upon completion to the FSDOE and TMED as well as schools that have participated.

The planning of the fieldwork of the study is scheduled for the period of July to September 2015.

If you need any additional information about the research, you are most welcome to enquire in this regard and I will gladly provide you with the requested information.

Yours faithfully

Andre Smith

Andre Smith

PhD. candidate (North-West University)

(Student number: 10094628)

Contact number: 058 303 4116 / 083 644 0062

Ethics number: NWU-000285-15-A2

Supervisor / Study leader: Dr. H J Van Vuuren

Faculty of Education Sciences

Contact number: 018 299 4774 / 083 233 0604 / herman.vanvuuren@nwu.ac.za

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Enquiries: Dr MC Liphapang
 Ref: Research Permission AS Smith
 Tel. 051 404 9290
 Fax: 086 6929 092
 Email: maphokal@edu.fs.gov.za



Mr AS Smith
 PO Box 474
 Bethlehem, 9700

Dear Mr Smith

APPROVAL TO CONDUCT RESEARCH IN THE FREE STATE DEPARTMENT OF EDUCATION

1. This letter serves as an acknowledgement of receipt of your request to conduct research in the Free State Department of Education.

Research Topic: A management framework for regional and school-based networks for principals in diverse contexts.

2. Approval is herewith granted to conduct research in all the schools in Thabo Mofutsanyana District.
3. **Target Population:** Principals of all schools in Thabo Mofutsanyana District.
4. **Period of research:** For three months from the date of signature of this letter. Please note the department does not allow any research to be conducted during the fourth term (quarter) of the academic year.
5. Should you fall behind your schedule by three months to complete your research project in the approved period, you will need to apply for an extension.
6. The approval is subject to the following conditions:
 - 6.1 The collection of data should not interfere with the normal tuition time or teaching process.
 - 6.2 A bound copy of the research document should be submitted to the Free State Department of Education, Room 319, 3rd Floor, Old CNA Building, Charlotte Maxeke Street, Bloemfontein.
 - 6.3 You will be expected, on completion of your research study to make a presentation to the relevant stakeholders in the Department.
 - 6.4 The attached ethics documents must be adhered to in the discourse of your study in our department.
7. Please note that costs relating to all the conditions mentioned above are your own responsibility.

Yours sincerely


 DR JEM SEKOLANYANE
 CHIEF FINANCIAL OFFICER

DATE: 01/07/2015

Strategic Planning, Policy & Research Directorate
 Private Bag X20565, Bloemfontein, 9300 - Room 318, Old CNA Building, 3rd Floor, Charlotte Maxeke Street, Bloemfontein
 Tel: (051) 404 9283 / 9221 Fax: (086) 6678 678

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Andre Smith
 PO Box 474
 BETHLEHEM
 9700

3 July 2015

The school principal
 Thabo Mofutsanyana Education District (TMED)
 Department of Education: Free State Province (FSDOE)

Dear Sir/Madam

CONSENT TO PARTICIPATE IN A RESEARCH STUDY AT YOUR SCHOOL

I intend to conduct a research study for a PhD in Educational Management at the North-West University. The theme of the study deals with **A MANAGEMENT FRAMEWORK FOR REGIONAL AND SCHOOL-BASED NETWORKS FOR PRINCIPALS IN DIVERSE CONTEXTS**. *A network is defined as a system or process that involves a number of cooperating individuals, groups, places or organisations that are interconnected (Collins English Dictionary, 2013; Macmillan Dictionary, 2013; Webster's New World College Dictionary, 2013; Wordsmyth English Dictionary, 2013).*

For all research conducted in schools, written proxy consent of the participant is required. With permission from the Free State Department of Education as well as yourself, the principal of the school, I hereby ask for your voluntary consent to participate in the above mentioned research. The method of data collection includes the filling in of a questionnaire which will take no more than 10 minutes.

I commit myself to the professional code of ethics for researchers which include among other:

- participation is strictly voluntary
- necessary documentation e.g. permission and consent forms will meet the requirements as stipulated by the code of ethics for researchers
- anonymity and confidentiality are guaranteed
- no interference with the general and academic programme of schools

- the questionnaire and any visits at school sites, if necessary, will only be conducted with consent and by appointment
- the findings of the research will be made available upon completion to the FSDOE and TMED as well as schools that have participated.

The planning of the fieldwork of the study is scheduled for the period of July to September. I am attaching the questionnaire as well as a written consent form. On approval, please complete the consent form.

If you need any additional information about the research, you are most welcome to enquire in this regard and I will gladly provide you with the requested information.

Yours faithfully

Andre Smith

Andre Smith

PhD. candidate (North-West University)

(Student number: 10094628)

Contact number: 058 303 4116 / 083 644 0062

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3 July 2015

The school principal
 Thabo Mofutsanyana Education District (TMED)
 Department of Education: Free State Province (FSDOE)

Dear Sir/Madam

PERMISSION TO PARTICIPATE IN A RESEARCH STUDY AT YOUR SCHOOL

I intend to conduct a research study for a PhD in Educational Management at the North-West University. The theme of the study deals with **A MANAGEMENT FRAMEWORK FOR REGIONAL AND SCHOOL-BASED NETWORKS FOR PRINCIPALS IN DIVERSE CONTEXTS**

With permission from the Free State Department of Education as well as yourself, the principal of the school, I hereby ask for your voluntary consent to participate in the above mentioned research. The method of data collection includes the filling in of a questionnaire which will take no more than 10 minutes.

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Andre Smith

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PhD. candidate (North-West University)

(Student number: 10094628)

Contact number: 058 303 4116 / 083 644 0062

Ethics number: NWU-000285-15-A2

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Institutional Research Ethics Regulatory Committee

Tel: +27 18 299 4849

Email: Ethics@nwu.ac.za

2016/04/18

ETHICS APPROVAL CERTIFICATE OF PROJECT

Based on approval by the Ethics Committee of the Faculty of Education Sciences (ESREC) at the meeting held on 27/08/2015, the North-West University Institutional Research Ethics Regulatory Committee (NWU-IRERC) hereby approves your project as indicated below. This implies that the NWU-IRERC grants its permission that, provided the special conditions specified below are met and pending any other authorisation that may be necessary, the project may be initiated, using the ethics number below.

Project title: A management framework for regional and school-based networks for principals in diverse contexts.																												
Project Leader/Supervisor:	Dr HJ van Vuuren																											
Student:	Mr A Smith																											
Ethics number:	<table border="1"> <tr> <td>N</td><td>W</td><td>U</td><td>-</td><td>0</td><td>0</td><td>2</td><td>8</td><td>5</td><td>-</td><td>1</td><td>5</td><td>-</td><td>A</td><td>2</td> </tr> <tr> <td colspan="3">Institution</td> <td colspan="3">Project Number</td> <td colspan="3">Year</td> <td colspan="3">Status</td> </tr> </table> Status: S = Submission; R = Re-Submission; P = Provisional Authorisation; A = Authorisation	N	W	U	-	0	0	2	8	5	-	1	5	-	A	2	Institution			Project Number			Year			Status		
N	W	U	-	0	0	2	8	5	-	1	5	-	A	2														
Institution			Project Number			Year			Status																			
Application Type:	N/A																											
Commencement date:	2015-08-27																											
Expiry date:	2016-11-30																											
Risk:	N/A																											

Special conditions of the approval (if applicable):

- Translation of the Informed consent document to the languages applicable to the study participants should be submitted to the ESREC (if applicable).
- Any research at governmental or private institutions, permission must still be obtained from relevant authorities and provided to the ESREC. Ethics approval is required BEFORE approval can be obtained from these authorities.

General conditions:

While this ethics approval is subject to all declarations, undertakings and agreements incorporated and signed in the application form, please note the following:

- The project leader (principal investigator) must report in the prescribed format to the NWU-IRERC via ESREC:
 - annually (or as otherwise requested) on the progress of the project, and upon completion of the project
 - without any delay in case of any adverse event (or any matter that interrupts sound ethical principles) during the course of the project.
 - Annually a number of projects may be randomly selected for an external audit.
- The approval applies strictly to the protocol as stipulated in the application form. Would any changes to the protocol be deemed necessary during the course of the project, the project leader must apply for approval of these changes at the ESREC. Would there be deviation from the project protocol without the necessary approval of such changes, the ethics approval is immediately and automatically forfeited.
- The date of approval indicates the first date that the project may be started. Would the project have to continue after the expiry date, a new application must be made to the NWU-IRERC via ESREC and new approval received before or on the expiry date.
- In the interest of ethical responsibility the NWU-IRERC and ESREC retains the right to:
 - request access to any information or data at any time during the course or after completion of the project;
 - to ask further questions, seek additional information, require further modification or monitor the conduct of your research or the informed consent process.
 - withdraw or postpone approval if:
 - any unethical principles or practices of the project are revealed or suspected,
 - it becomes apparent that any relevant information was withheld from the ESREC or that information has been false or misrepresented,
 - the required annual report and reporting of adverse events was not done timely and accurately,
 - new institutional rules, national legislation or international conventions deem it necessary.
- ESREC can be contacted for further information or any report templates via Ema.Conradie@nwu.ac.za or 018 299 4656

The IRERC would like to remain at your service as scientist and researcher, and wishes you well with your project. Please do not hesitate to contact the IRERC or ESREC for any further enquiries or requests for assistance.

Yours sincerely

**Prof LA
Du Plessis**

Digitally signed by Prof LA Du Plessis
DN: cn=Prof LA Du Plessis, o=North-West
University, ou=Campus Media,
email=Linda.DuPlessis@nwu.ac.za, c=ZA
Date: 2016.04.18 09:40:31 +0200

Prof Linda du Plessis
Chair NWU Institutional Research Ethics Regulatory Committee (IRERC)

