

**A FRAMEWORK FOR BRIDGING THE INFORMATION SERVICES CHASM IN A
RURAL SETTING WITHOUT PUBLIC LIBRARY FACILITIES**

BY

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ABSTRACT

Although people in rural communities require information on a variety of issues, there is a gap in access to information due to the lack of libraries in these outlying or peripheral areas. The inaccessibility of information is exacerbated by a lack of infrastructure, such as internet access and poor telecommunications systems. To collect data from library and information science experts and residents of the Taaiboschgroet village in South Africa's Limpopo Province, this study used a qualitative approach involving the triangulation of the Delphi technique and a narrative inquiry. Data were gathered through interviews with Taaiboschgroet village members and Library and Information Science experts from Limpopo Province (three sets of interviews with three LIS experts). The study discovered that rural people require information on a wide range of topics, including health, education, politics, farming, and social life. This information is used for schoolwork, applying for university admission, knowing which political parties to vote for, and knowing which trees to plant in different seasons. Radio, television, cellphones, elders, and peers were discovered to be available information sources in the village. Access to the Internet necessitates the purchase of data bundles, which has a negative impact on the unemployed due to the village's low level of employment. The study's main finding is that access to information in rural areas is hampered by a lack of public library facilities which is also compounded by lack of network coverage. It is therefore suggested that information centres be established to bridge the information services chasm. This can be accomplished by providing reading areas for rural residents to gather and share information. A framework for bridging the information services gap has been proposed. The framework will serve as a foundation for addressing issues of information inaccessibility in remote regions.

Keywords: community information centres; information sources, information services, Limpopo Province, public libraries, rural areas, South Africa

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DEDICATION

This work is dedicated to my children, Tabudi Lesedi Boloka and Molepo Nicoline Boloka.

DECLARATION

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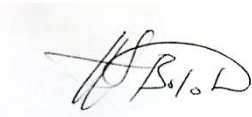
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A framework for bridging the information services chasm in a rural setting without library facilities

I declare that **A framework for bridging the information services chasm in a rural setting without library facilities** thesis is my work and that all the sources that I have used or quoted have been indicated and acknowledged using complete references.

I further declare that I submitted this thesis to originality checking software and that it falls within the accepted requirements for originality.

I further declare that I have not previously submitted this work, or part of it, for examination at Unisa for another qualification or at any other higher institution of education.



28 January 2022

SIGNATURE

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LIST OF ABBREVIATION AND ACRONYMS

BLM	Blouberg Local Municipality
CDM	Capricorn District Municipality
CIC	Community Information Centre
DAC	Department of Arts and Culture
IFLA	International Federations of Library Association
IS	Information Studies
IR	Institutional Repository
LIS	Library and Information Services
NCRE	National Committee for Research Ethics
NGO	Non-governmental Organization
NLSA	National Library of South Africa
PAIA	Promotion of Access to Information Act
RLRDP	Rural Libraries and Resource Development Programme
TLC	Transitional Local Council
UDHR	Universal Declaration of Human Rights
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNISA	University of South Africa
VRRP	Village Reading Rooms Programme

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CHAPTER ONE

INTRODUCTION: SETTING THE SCENE

1.1 INTRODUCTION AND BACKGROUND TO THE STUDY

Information is regarded as a crucial resource for successful development activities in any setting, including rural areas. Indeed, as Mtega and Ronald (2013:1) would attest, information is a “valuable resource in the daily lives of all people, including those who live in rural areas”. In rural areas, information is used for a variety of purposes, including health, schoolwork, housing, farming, religious, and business activities (Harande 2009). Mtega and Ronald (2013) found that people in rural areas have information needs that arise from their daily activities, but there are no sources of information to meet those needs. Even in times of crisis, such as the Covid-19 pandemic, information is required in rural communities to assist residents in dealing with the situation. Television, radio, social media, and libraries can all provide such information.

It should be noted that most media information is generic and not tailored to a specific community. Because what people read on social media is filtered, there is no guarantee of the accuracy, reliability, or authenticity of the information. Rural areas are not always served by newspapers (Ngoepe, Mojapelo, Ngoepe & Van der Walt 2017). Furthermore, as observed by Mojapelo and Ngoepe (2020:92), “most rural communities in South Africa, particularly in the Limpopo province, lack public libraries; as a result, learners in rural areas make career decisions based on advice from their teachers”. This results in reliance on a single source of information to make decisions, which is not ideal.

As a result, these authors argue that "a plethora of library resources in various formats are required for socioeconomic development of rural citizens who are characterised by high poverty levels, high unemployment rates, and high illiteracy rates" (Mojapelo & Ngoepe 2020:92). This could be accomplished by raising awareness among rural residents about the information resources provided by a community library. Rural community libraries could also encourage rural residents to use information sources, resulting in improved socioeconomic development.

Despite the importance of information to rural people, it is not always available because of lack of infrastructure such as libraries and internet access (Ngoepe et al. 2017). Even when people in rural villages have cellphones, they are sometimes unable to access information due to poor network signal or a lack of data. This is exacerbated by a library shortage, as there is a significant backlog in providing adequate public library services in South Africa. According to Schedule Five of the Constitution of the Republic of South Africa, "public library services are the exclusive competence of provinces, in terms of Part A of Schedule 5 of the South African Constitution." Prior to the 1996 Constitution, this function was shared by provinces and local governments, with local governments providing and maintaining buildings and personnel and provinces providing professional and technical services (Mojapelo 2018).

While other provinces have established public libraries, the situation is worse in Limpopo, which has the fewest public libraries (National Library of South Africa (NLSA) 2016), and this has a negative impact on the country's development (see Table 1.1 for statistics on South African public libraries per province). Surprisingly, the Limpopo province returned unutilized money from the national Department of Sport, Arts and Culture for library conditional grants, which are provided to all provinces with the goal of developing and building public libraries. Policies, budget constraints, and infrastructure were also factors that exacerbated the situation.

Community libraries are entrusted with a vast amount of information in a variety of formats. According to Stilwell (2016), community libraries in South Africa are underserved due to antiquated policies and inadequate legislation. This could be because, as Nkondo, Brown, Dick, Hart, Molawa, Nassimbeni, Seleti and Teffo (2014) observe, "municipalities have an unfunded mandate for the provision of community library services and thus exercise the function which is not legally theirs." It is assumed that the function was assigned to municipalities because these institutions provide services closer to the people in South Africa. The situation is worse in the Blouberg Municipality, which is the context of this study, as illustrated in Figure 1.1. In South Africa, the municipality is on the outskirts of almost everything, including public libraries (Ngoepe et al. 2017). Geographically, it shares a border with Botswana's eastern rural region.

This municipality, like others in rural villages, is underdeveloped, with only three public libraries serving 135 villages and a population of more than 172 601 people.

According to Ledwaba (2018:121), public libraries were not well developed prior to 1994, except in former white communities. This may be due to apartheid laws. Mojapelo (2018:13) discovered that, “even in post-apartheid South Africa, inadequate libraries face a slew of daunting challenges that undermine their mandate of providing information services and resources to all”. Mojapelo (2018) adds that, in addition to financial assistance and staff turnover, community libraries in disadvantaged rural areas do not receive adequate support (Mojapelo 2018).

Laishley and Zinn (2015) also highlight disparities in South African access to library services. Every day, information is required to survive in this era. According to Mnkeni-Saurombe and Zimu (2013), libraries that meet people's ever-changing information needs are essential in rural areas. This is consistent with the IFLA/UNESCO Public Library Manifesto (1994), which states that public library services should always be easily accessible and equitable. According to Mhlongo (2018:26), "the democratic government made efforts to extend services to all South Africans by allocating funds through the Department of Arts and Culture (DAC) in the form of conditional grants to all nine provincial library services."

According to Ledwaba (2018)'s research, there are 1 612 public libraries in South Africa's nine provinces. Despite having a larger population and a larger geographical area, Limpopo has the fewest public libraries of any province. This is also noted by Mojapelo (2018), who states that the legacy of apartheid's uneven allocation of community libraries is visible, and LIS provision remains patchy in the Limpopo Province.

Table 1.1: Breakdown of public libraries in South Africa

Province	Population size	Land area by province	Total number of libraries
Eastern Cape	6,562,053	13.9%	144
Free State	2,745,590	10.6%	173
Gauteng	12,272,263	1.4%	234
KwaZulu-Natal	10,267,300	7.7%	174
Limpopo	5,404,868	10.3%	74
Mpumalanga	4,039,939	6.3%	111
Northern Cape	1,145,861	30.5%	253
North West	3,509,953	8.7%	102
Western Cape	5,822,734	10.6%	347
Total	51,770,560	100%	1 612

Source: National Library of South Africa (NLSA) (2016:12)

Due to the shortage of libraries in rural areas, rural dwellers rely extensively on information they receive from their peers, elders, teachers, or family members for their day-to-day activities (Mtega & Ronald 2013). On rare occasions, some can access newspapers (Ngoepe et al. 2017). Indeed, reliable information services infrastructure is a necessity in bridging the information services chasm. This is because people living in rural areas are mostly illiterate, elderly people, and children. Such people are living in poverty and mostly rely on social grants (Ngoepe 2020). For these people to develop, they need information on a daily basis, especially for learners, to do their homework. This view has been raised by Mtega and Ronald (2013) in the Tanzanian context, that rural communities need effective information services for developmental purposes. The authors further explain that information services empower people as they provide knowledge that is needed to solve practical problems. Information services may be provided through the service station, which can be regarded as an information centre providing information services to rural communities (Mtega & Ronald 2013).

1.1.1 Contextual setting

Using concepts from the literature review, this study investigated the development of a framework for the provision of information services in rural settings lacking public library facilities. The Taaiboschgroet area in the Blouberg Municipality within the Capricorn District Municipality in South Africa's Limpopo Province served as the study's context. Taaiboschgroet, a rural area, is located in the Limpopo Province's Blouberg Municipality. South Africa's Limpopo Province is the country's northernmost "province, lying within the great curve of the Limpopo River, from which the province derived its name" (Maluleka 2017:7).



Figure 1.1: Map of South Africa (Blouberg IDP 2016/17)

Limpopo Province is divided into five districts: Waterberg, Capricorn, Vhembe, Mopani, and Sekhukhune (see Figure 1.2 of the map of Limpopo provincial regions).

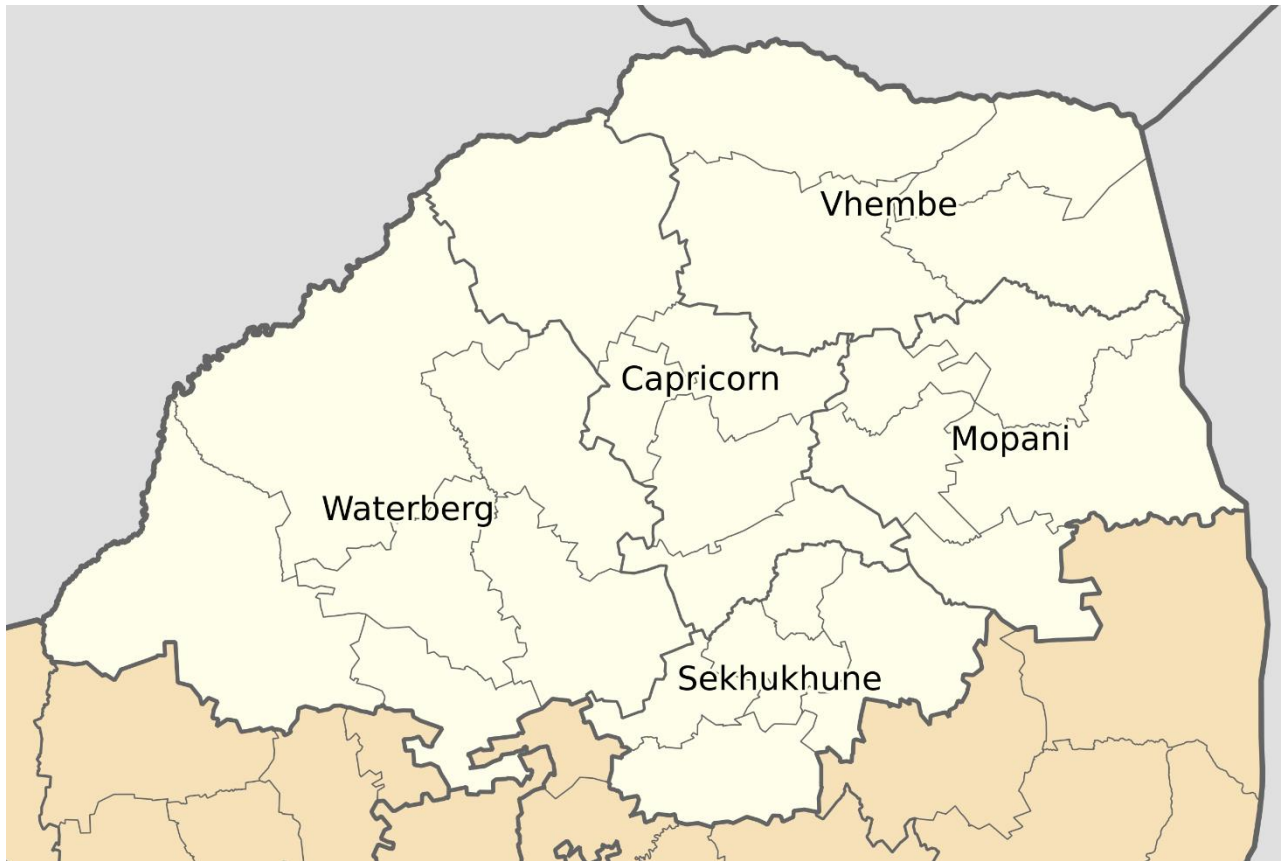


Figure 1.2: Limpopo provincial regions (Wikimedia Commons 2011)

The Capricorn District Municipality includes the Blouberg Local Municipality. Blouberg, along with Soutpansberg and Makgabeng, is the province's second and one of three major mountain ranges (Setumu 2010:1). Taaiboschgroet village, also known as Ga- Mamadi, is part of the Blouberg Local Municipality (BLM) in the Capricorn District Municipality (CDM) in Limpopo Province, which is led by Chief ML Mamadi (Census 2011). Blouberg Local Municipality was established in 2000 by the merger of the Northern District Council and Bochum.

Blouberg Local Municipality is made up of 118 settlements. Senwabarwana and Alldays are two of the 118 semi-urban areas (Blouberg IDP 2016/17). The municipality, located approximately 95 kilometres from Polokwane, covers an area of approximately 5 054 km² and extends all the way up to the Botswana border gate of Zanzibar. The area also has the lowest income levels in the country. “Blouberg is divided into 18 wards and has a population of 161 322 people” (Blouberg

IDP 2016/17). Taaiboschgroet is located in Ward 15.

As previously stated, the Taaiboschgroet village is located in the Limpopo Province, which is on the outskirts of South Africa (see Figure 1.2 for the map of South Africa).

The Blouberg Local Municipality has only three libraries, located in three settlements: Alldays, Senwabarwana, and Eldorado (see Figure 1.3 for a map depicting Alldays, Senwabarwana and Eldorado settlements). There is currently no library closer to Taaiboschgroet village. Members of the community rely heavily on information provided by their peers, Elders, and school teachers. Others obtain information through radio, television, and the Internet.

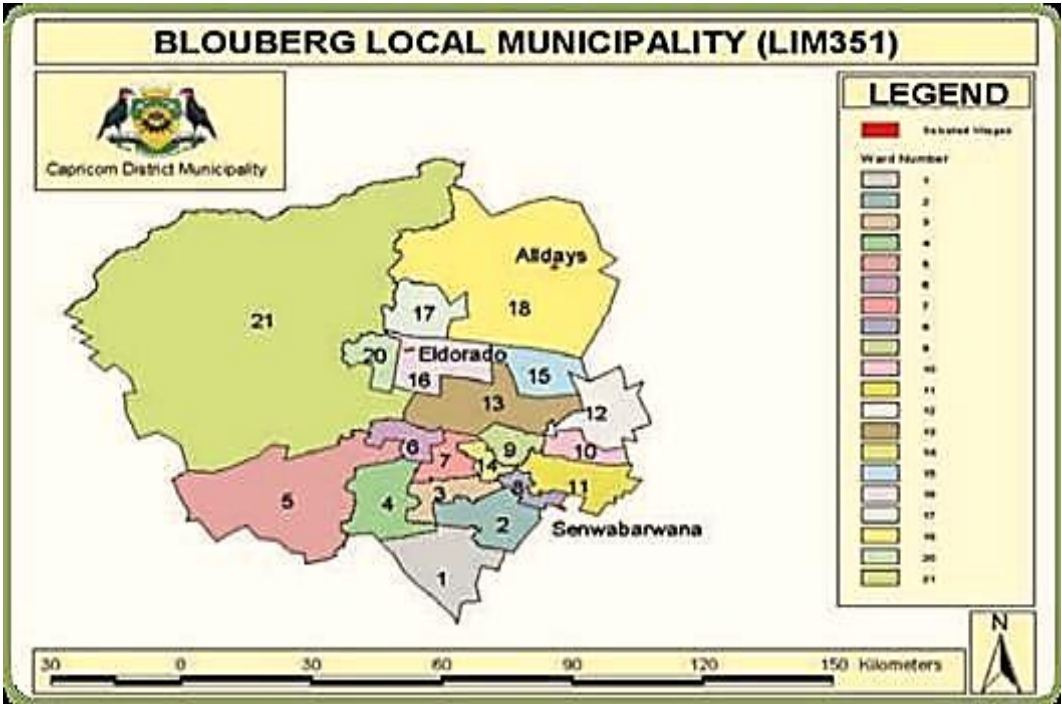


Figure 1.3: Map depicting Alldays, Senwabarwana and Eldorado settlements (Blouberg IDP 2016/17)

The Taaiboschgroet area has a total population of 5 246 people, with 1 163 households, according to Census (2011). Currently, the village lacks information services. For information, the villagers rely on television, radio, peers, and cellphones.

1.1.2 Conceptual setting

It is essential to set a tone for the key concepts for this study. This helps to provide context for the concepts used in the study. Saurombe (2016:22) believes that “defining terminology in research is important, relevant, and useful because it clarifies the study's concepts”. This study's key concepts are information services and information sources.

1.1.2.1 Information services

According to Obasi (2015), public library information services include story-telling, reading competitions, photocopying, reference services, recreational and advisory services, lending services, and user education. Munchen (2001) and Koontz and Gubbin (2010:38) outline the following services that users should be able to access in a variety of formats and media:

- Provision of books and other materials for use in the library
- Information services using print and electronic media
- Readers’ advisory services, including reservation services
- User education, including support for literacy programmes
- Modern communication tools such as blogs, cellphones, messaging and social networking tools are used for both reference services and public relations.

The availability of information services rendered to community members would resolve the issue of information access gap in the rural community under study for the purposes of this study.

1.1.2.2 Information sources

The sources used to satisfy an information need and the channels used to disseminate information among people are referred to as information sources (Mohammed 2019). These sources are required on a daily basis in rural areas. Several studies on information sources used by rural dwellers have been conducted (Mtega & Ronald 2013; Maepa 2000). Different people use these sources for various reasons. Some people require information sources for decision making, education, health, politics, and social issues. Radios, newspapers, face-to-face communication, friends, relatives, and professionals are all sources of information (Maepa 2000). These information sources are discussed in depth in Chapter Two, where the researcher demonstrates how different individuals use

information sources.

1.2 STATEMENT OF THE PROBLEM

According to Ngoepe et al. (2017), most rural communities lack adequate access to information due to a lack of public facilities and infrastructure such as libraries and internet connections. This has a negative impact on the day-to-day activities of rural residents and deprives them of the opportunity to access information, which is a fundamental human right. The lack of delivery of information services has a significant impact on how the community accesses information and, ultimately, how the country develops. According to Onyeronke (2012:66), a country's progress is dependent on citizens' ability to obtain appropriate information. The lack of libraries in rural areas has an impact on learners' primary and secondary education. The majority of high schools in Limpopo lack proper library facilities and are located far from public libraries that could provide learners with information services (Mojapelo & Dube 2014).

According to Mojapelo and Dube (2014), very few teachers and learners in historically disadvantaged and marginalised communities have access to information resources. Furthermore, Maepa (2000) mentions a lack of public library services in the Limpopo province, resulting in little or no access to information services. Rural residents relied heavily on information provided by peers, relatives, and professionals such as teachers and nurses (Maepa 2000). Furthermore, Ngoepe et al. (2017) show that a lack of internet access and access to libraries in Limpopo's rural Makgabeng village had a negative impact on students' academic performance. It should be noted that the Makgabeng village is part of the same municipality as Taaiboschgroet.

According to Mojapelo and Ngoepe (2020:94), "well-resourced and smoothly operating community libraries can play a critical role in the provision of information sources to support school curricula and boost learner outcomes." According to Mojapelo and Ngoepe (2020), a lack of community libraries in rural areas hinders socioeconomic development. Based on these findings, one can conclude that the lack of public library facilities denies rural communities access to current information about what is going on around the world. Mohammed (2019) identified the absence of library facilities and the lack of community information centres as major challenges in information service provision in her study, which proposes a framework for policy assessment in

relation to the provision of information services in rural areas. A study conducted by Ngoepe et al. (2017) in the Makgabeng village, which is similar to the Taaiboschgroet village in Limpopo, revealed that a lack of library facilities is a major issue in rural areas. Ngoepe et al. (2017), on the other hand, focused on career expos.

1.3 AIM AND OBJECTIVES OF THE STUDY

According to Thomas and Hodges (2010:38), the goal of a study usually comes before a list of statements outlining the research goals of the study. The study sought to investigate the provision of information services in rural areas lacking library facilities. The researcher desired to develop a framework for bridging the information services gap. There are research objectives that served as the foundation for this study. The specific objectives were to:

- identify information resources and sources in a rural setting
- determine accessibility of information resources in a rural setting
- assess infrastructure available for the provision of information services in a rural setting
- assess the effects of the unavailability of public library facilities on residents of rural settings
- determine factors inhibiting and enabling the provision of information services in rural areas
- suggest a framework for bridging the information services chasm in a rural setting.

1.4 CONCEPTUAL FRAMEWORK

According to Ngulube (2018), it is essential to conduct empirical research within the context of a conceptual or theoretical framework. As a result, Ngulube (2018) emphasises the importance of the conceptual framework by stating that it builds the research design in social sciences. Several academics offer definitions of conceptual framework. According to Neuman (2011:205), "conceptualisation in qualitative research is a process of forming coherent theoretical definitions while still attempting to make sense of preliminary ideas about it." A conceptual framework, according to Jabareen (2009:51), is "a network, or 'plane,' of interconnected concepts that, when combined, provide a comprehensive understanding of a phenomenon or phenomena." Similarly, Maxwell (2013:39) defines a conceptual framework as "a constructed, tentative theory of

phenomena that the researcher uses to explain phenomena."

The objectives of this study were guided by the constructs from the conceptual framework. According to Lester (2005:460), a conceptual framework is an argument that the concepts chosen for investigation, as well as any anticipated relationship between them, are appropriate for the research problem under investigation.

Miles and Huberman (1994:18) define a conceptual framework as "a visual or written product that explains, either graphically or in narrative form, the main things to be studied – key factors, concepts, or variables – and the presumed relationships among them."

The conceptual framework that this study is based on provides a clear direction for what to consider when providing information services to rural communities in order to bridge the information services chasm. The researcher created a conceptual framework that guided the study's objectives. Rural community members, information sources, information services, information access, and infrastructure are all part of the framework. According to this framework, rural community residents require access to information, which can only be obtained if information services are provided to them and information sources are made available in the area. Infrastructure should also be available to ensure that rural residents have access to adequate information services. This is due to the South African democratic government's acceptance of the right to information, regardless of the user's location (Arko-Cobbah 2007). However, Roling (2014) observes some inequalities in the provision of information and access to information in South Africa, which began before apartheid and continue to this day.

According to Omogor (2013), information can be contextualised based on its purpose. As a result, Sharman (2012) emphasises that information can be viewed as a means of communication between organisations and constituencies, as well as an exchange of information from one person to another and from one location to another. This may imply that rural communities should always have access to information that public libraries are obligated to provide.

The provisions in the IFLA public library guidelines by Koontz and Gubbin (2010), the UNESCO Public Library Manifesto of 1994, and the 1948 Universal Declaration of Human Rights (UDHR) all influenced the conceptual framework that was created. In the literature, there are two main

conceptualisations of information provision: information and information provision.

According to Unagha and Ibenne (2011), information has become a tool for proper integration through interactive interpersonal networking and a means of maintaining a healthy balance in such interactions for the purpose of personal and group development for individuals.

Dewe (2006:17) mentions the IFLA/UNESCO Guidelines, which consider information to be a basic human right and state that public libraries should do the following:

- Collect, organise, and exploit information, including business, local, or community information.
- Provide access to information sources, including the internet.
- Act as a community memory – through the provision of a local studies, local history or heritage service, possibly in conjunction with museum and archive services.
- Act as an electronic gateway to the information world.

Blanchard (1997) and the International Federation of Library Association's (IFLA) Guidelines for Library Services for Young Adults (2010:3) recognise the right of all young people from all backgrounds and cultures to open, free, and equal access to information as a basic precondition for the right to development. According to Gericke (2001:90, 245), information provision entails retrieving and disseminating information as well as ensuring access to information. Information provision also includes information interpretation on behalf of the user, i.e. providing not only materials but also assistance in their use.

Figure 1.4 depicts the conceptual framework that will guide this study. This is consistent with the findings of Ngulube, Mathipa, and Gumbo (2015), who claim that conceptual frameworks are best represented in diagrams. This study's constructs were derived from the frameworks of Maepa (2000) and Mtega and Ronald (2013), which provided insight into how to provide information services to rural community members. The constructs from the proposed conceptual framework aided the researcher in reviewing the literature for this study, designing data collection questions, and developing a framework for information services provision in rural areas lacking public library facilities (presented in Chapter 6). This model was critical for this study because it served as a guideline for the literature review and data collection.

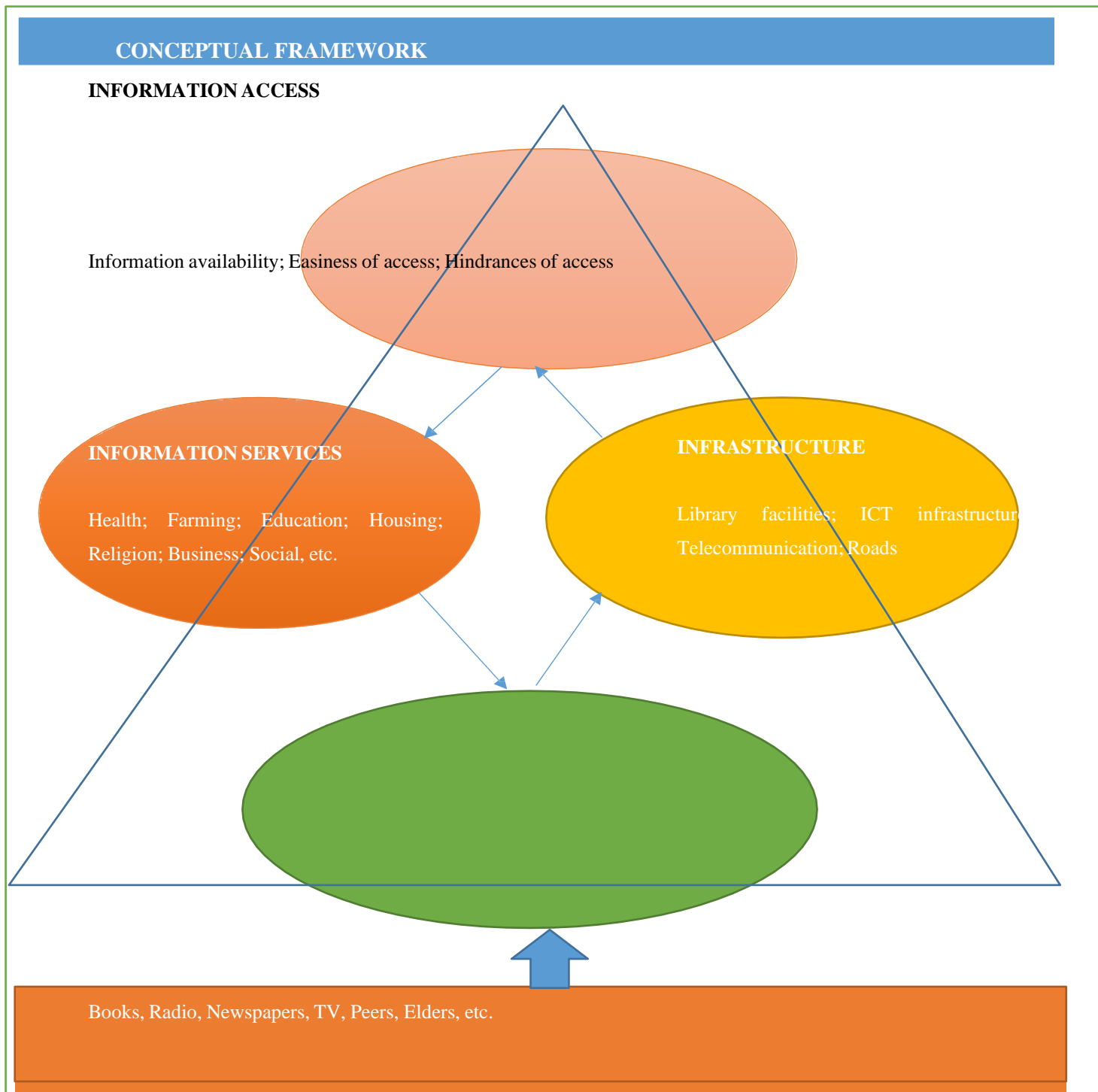


Figure 1.4: Conceptual framework for information provision (Synthesized by the researcher)

The conceptual framework's constructs to guide this study are infrastructure, information services, information sources, and information access in a rural setting, as shown in Figure 1.4.

1.4.1 Infrastructure

The infrastructure of a library includes essential facilities and tools that improve the library's ability to provide quality services to its patrons (Omeluzor, Oyovwe-Tinuoye & Emeka-Ukwu 2017). To keep up with developments in the information profession and technological advancements in the delivery of information services, all types of libraries require infrastructure that includes the physical building, power-generating equipment, computers, internet facilities, photocopiers, scanners, purpose-built library building, furniture and fittings, and vehicles (Omeluzor et al. 2017). Infrastructure such as roads, libraries, and ICT remain a challenge in rural areas. This has an immediate and indirect impact on rural people's access to information. Other information service providers, such as radio, television, mobile phones, the Internet, and newspapers, necessitate ICT infrastructure in rural areas.

1.4.2 Information services

According to Harande (2009), "information services empower people by providing knowledge that is required for solving practical problems." As a result, the researcher attempted to highlight information services available for information access in the Taaiboschgroet village. This aided the researcher in identifying the information gap in rural communities. On a daily basis, information services are required in rural areas. Rural residents have a variety of information needs, including health, education, social, political, and agricultural needs. As a result, information services should be provided to them in order to meet their information needs. These information services can be provided more effectively in a public library because libraries house a vast amount of information ranging from physical materials (books, newspapers, government gazettes, and magazines) to online materials (databases as well as electronic books). To ensure that this occurs, available service providers should be identified, their method of information service provision described, and the type of information they provided. tools required to access these, and so on. This appears to be missing from the description of this construct. There are currently no service providers in the village. As a result, villagers rely on information obtained from radio, television, and peers.

1.4.3 Information sources

Information sources are the sources used to meet an information need as well as the channels used to spread information among people (Mohammed 2019). To name a few, these sources include television (TV), radio, newspapers, peers, and elders. Because of poor infrastructure, poor network connectivity, and a lack of access to library facilities in rural areas, the most common sources of information are elders, TV, and radio. The problem with these available information sources in rural areas is that they do not always provide the information that rural residents require. Elders, for example, provide information on certain diseases and how to prevent them. However, because they do not know how to apply for jobs online or for university admission, they are unable to provide this information. Radios and televisions never broadcast job openings, and employment difficulties are common in rural areas.

1.4.4 Information access

People need daily access to information to meet their information needs. People access information through a variety of channels. Some people get information from their cellphones, while others get it from books, magazines, newspapers, radios, televisions, and elders. Even in the democratic era, access to information in rural areas is still limited due to limited sources of information (Mojapelo 2018). People require internet access in this technological age because most things are done online for efficiency and cost savings. People apply for jobs online, register for Covid-19 vaccinations online, and universities require people to apply for admission and attend classes online. In rural communities, poor infrastructure limits access to information.

1.5 ORIGINALITY OF THE STUDY

According to the United Kingdom Quality Assurance Agency for Higher Education (2015:4), "a doctoral thesis has been considered essential for more than a century." Cryer (2006:17) mentions the following factors that may influence research originality:

- “When the researcher uses new tools, techniques and procedures to address research problems.

- When the researcher explores an area that is unknown or where little research was conducted in that particular area.
- When the researcher explores a well-explored subject area, but results show unexpected and unexplored subareas in that particular field of study.
- When the researcher collects original data.
- When the research results have the potential to be published”.

Several studies on information services in rural areas have been conducted (Mohammed 2019; Idiegbeyan-ose, Adekunjo, Ilo, & Odion 2015; Mtega & Ronald 2013), but none have focused on bridging the information services chasm in a rural setting lacking a public library facility. The researcher further ensured the study's originality by using the phenomenological method to collect original data from the affected population, where little or no research on the same topic had previously been conducted.

1.6 SIGNIFICANCE OF THE STUDY

Creswell (2003:149) explains that the "significance of the study focuses on how the study will add to scholarly research and literature in the field, how it could help improve practice and why it could improve policy". This study is important because it highlights the need for public libraries in rural areas to serve the informational needs of rural dwellers. The importance of bridging the information services gap in rural areas lacking public library facilities cannot be overstated. This study provided valuable insight into bridging the information services chasm in rural areas. This might provide value for research in public libraries in rural areas in general within the Limpopo province in South Africa and the continent at large.

The main reason for choosing the Taaiboschgroet area was that residents struggle to access library and information services provided within the Blouberg Municipality because of the distance to and from these libraries. A lack of transport is also a barrier for residents to easily access library services in the available libraries in the municipality. LIS experts were also deemed relevant to provide insights as far as information access in rural areas is concerned. Their contribution to this study helped to develop the framework to address the lack of access to public library facilities for information provision and access.

The findings of this study will assist in advancing the practical and theoretical understanding of obstacles involved in the scarcity of information services in rural settings without public library facilities. This study will also contribute to the growing literature on the unavailability of public libraries in rural areas and is projected to produce useful research results that can be widely adopted in the Limpopo Province.

1.7 SCOPE AND DELIMITATIONS OF THE STUDY

The purpose of this study was to propose a framework for bridging the information services chasm in a rural setting lacking public library facilities. This study was limited to residents of Taaiboschgroet village. Residents who did not live in the Taaiboschgroet village full-time were excluded because the researcher believed they would not provide original data for the study because they may live in areas where public library services are available. Inclusion of people living temporarily in Taaiboschgroet village would have also broadened the scope of the study. Because the study relied on Maepa's (2000) information service provision model, other stakeholders such as private sector companies, community-based organisations, and non-governmental organisations were excluded. These stakeholders were not present at the Taaiboschgroet village, so they were excluded. According to the study's goals and objectives, it was more important to focus on the people who were affected and needed public library access the most.

1.8 LITERATURE REVIEW

A literature review is an important part of research because it allows the researcher to identify inconsistencies, similarities, and gaps in existing information (Adeleke 2017:46). This study's literature review was conducted in collaboration with previous research outputs related to information services in rural settings lacking public library facilities. The literature was reviewed in relation to the study's objectives, as stated in section 1.5 of this chapter.

The following were the key themes that emerged from the objectives:

- Information resources in a rural setting.
- Accessibility of information resources in a rural setting.
- Infrastructure available for the provision of information.
- The effects of the unavailability of public library facilities on residents of rural settings.
- Factors inhibiting and enabling the provision of information services in rural settings.
- Framework for bridging the information services chasm in a rural setting.

Journal articles, online books, Google Scholar, previous dissertations, and library databases were all used to conduct a literature review. This study's detailed literature review can be found in Chapter Two. The researcher solely relied on information obtained from library databases such as Ebscohost, Science Direct, and Sabinet, as well as journal articles, previous thesis and dissertations, and books. The researcher searched for information using keywords derived from the study's objectives, and she searched until she found enough information for this study. Books were primarily used for research methodology, but journal articles were also used to validate methodologies used in other studies.

1.9 RESEARCH METHODOLOGY

According to Ngulube (2015:6), "methodology is central to the research process because it is the lens through which a researcher looks when making decisions about acquiring knowledge about social phenomena and answering research questions." This section goes over the ontology, epistemology, methodology, methods, and instruments used in this study. The topics covered in this study included research paradigms, research approaches, research methods, study population, sampling procedures, data collection methods and instruments, and data analysis and presentation. These topics are covered in depth in the chapter on research methodology (Chapter Three).

The constructivism and interpretivism paradigms were both considered relevant for this study, as the researcher sought to propose a framework for bridging the information services chasm among rural dwellers who are perceived to be marginalised or disenfranchised (Creswell & Creswell

2018). As a result, the qualitative approach was used to gain a thorough understanding of the problem under consideration.

To maximise the theoretical implications of the research findings, the qualitative approach (Creswell 2014) was chosen. In this study, the triangulation of the narrative enquiry method and the Delphi technique were used to obtain original information from study participants. The population for this study was limited to Taaiboschgroet village residents, including Taaiboschgroet residents, shop owners, the chief and ordinary residents, and Blouberg Municipality experts in library and information science. Interviews, participant observation, and document analysis were used to collect data. Data collection was done with dependability and credibility in mind. The data were thematically analysed and presented, and the research methodology for this study is described in Chapter Three.

1.10 DISSEMINATION OF FINDINGS

According to Ocholla (1999:141), "the possession of information without it being widely disseminated is useless, and research is incomplete until it is widely disseminated." As a result, the findings of this study will be shared through presentations at local, regional, and international conferences, workshops, and seminars. The findings will also be published as a dissertation through the UNISA Institutional Repository (IR) and shared with Taaiboschgroet community members as well as the chief, who may provide space for a library. This would ensure that funds are returned to the Taaiboschgroet community, as publications typically benefit only the elite communities and do not benefit underserved communities.

1.11 ETHICAL CONSIDERATIONS

When conducting an empirical study with human participants, it is customary to consider ethics (Connaway & Powel 2004:68). This study followed research ethics policy of UNISA. The researcher was concerned with the right to privacy, informed consent, the protection of participants from harm, and, most importantly, the researcher's involvement (Welman, Kruger & Mitchell 2005:201). Chapter Three contains information on ethical considerations.

1.12 DEFINITION OF KEY TERMS

Bryman (2012) considers concept definition to be essential because concepts compel the researcher to be focused and disciplined. This section defines terms used in the context of this study to ensure that the concepts are understood by all. Information, libraries, public libraries, information services, and information resources are among the terms defined.

1.12.1 Information

Information is defined as "valued ideas, facts, and imaginative work of the mind." It has the potential to help with decision-making, question-answering, and problem-solving" (Kaniki 2001:191). Ifukor (2013:206) defines information as "any message or news, viewed or read or told verbally, that adds to knowledge, awareness, or understanding of topics, events, or problems that prepares an individual for life's uncertainty." This definition was used in this study because the goal of the study was to propose a framework for bridging the information services chasm in rural areas. All rural residents require information in their daily lives. According to Tahir, Mahmood and Shafique (2008:1), the current era is known as the information era, and information has become the most important factor in societal progress. According to Yusuf (2012), information is an important resource for individual growth and survival. The author goes on to say that the advancement of modern societies and individuals is heavily reliant on the provision of the right kind of information, in the right form, and at the right time. To make the right decision and reduce uncertainty, you need information (Yusuf 2012). Everyone, according to Fabunmi and Olabode (2004), requires information to survive. As a result, information should be made available to everyone, whether in a rural or urban setting. Rural residents have information needs in areas such as education, agriculture, health, and politics, among others, which can be met with access to information. The importance of information is acknowledged by the South African constitution, which recognises it as a fundamental human right. The UNESCO and IFLA manifestos also recognise the importance of information access and make provisions for public libraries to provide information services to people of all ages, genders, sexual orientations, and nationalities, among other things.

1.12.2 Library

A library, according to Ram (2018), is a collection of sources, resources, and services housed, organised for use, and maintained by a public body, an institution, or a private individual. A library, in the more traditional sense, is a collection of books. Kumar (2015:169) considers the library to be "an essential part of the educational institution that provides a wide range of academic services to its parent body's academic community and curriculum support to students." Libraries, in addition to materials, offer the services of librarians, who are experts at finding and organising information as well as interpreting information needs (Ram 2018). Libraries are classified into five types: school libraries, academic libraries, public/community libraries, special libraries (Library for the Blind, government libraries), and national libraries. These libraries cater to a variety of patrons.

A school library, according to Prytherch (2000: 268), is "a facility that supports the needs of the school community, a resource centre that collects books and non-book materials of all types, and which are relevant sources of information and instruction in schools." According to Simba (2014:12), a school library is "a purpose-built space where sufficient books for learners and teachers are kept; it is a tool for learning and teaching in which school librarians facilitate learning by providing information skills geared toward developing learners' competencies in the subject matter".

Academic libraries are found in institutions of higher learning such as colleges and universities to support academic work. An academic library is defined as a key source of information in higher education institutions (Allen & Taylor 2017). **Special libraries** are libraries that offer specialised information resources on a specific topic, serve a specialised and limited clientele, and provide specialised services to that clientele. **Corporate libraries**, government libraries, law libraries, medical libraries, museum libraries, and news libraries are examples of special libraries. A **national library** is a library established by the government to serve as the primary repository of information for the country. Unlike public libraries, they rarely allow citizens to borrow books. They frequently contain a large number of works that are rare, valuable, or notable.

A national is someone who is in charge of collecting and preserving the nation's literature both inside and outside the country. Section 1.12.4 of this study discusses community/public libraries.

1.12.3 Library services

Library services are the tasks performed by library staff in order to meet the information needs of library patrons (Popoola & Haliso 2009). These are vital to library users' day-to-day information needs. These services are required by library users in order to make informed decisions for educational, agricultural, health, and job applications (Mtega 2013). Public libraries offer a diverse range of information services to communities with varying information needs. According to IFLA/UNESCO (1994:2), public library services are provided to all people, regardless of age, race, gender, religion, nationality, language, or social status. Information (reference) services, books, journals, and magazines, special services, lifelong learning, and cultural and social activities are all available in public libraries (IFLA/UNESCO 1994; Bundy 2005). These public library services are available to a variety of library users, including children, young adults, adults, and people with special needs, also known as people with disabilities (Goulding 2016; Gilton 2012; Koontz & Gubbin 2010).

1.12.4 Community library

According to some scholars (MnKeni-Saurombe 2014), the terms "community library" and "public library" can be used interchangeably because they serve the same clientele. The terms are used interchangeably in this study. According to the International Federation of Library Associations and Institutions (IFLA) (2001), the community establishes, supports, and funds a community library through local, regional, or national government or another type of community organisation. It provides equitable access to knowledge, information, and works of imagination to all members of the community through a variety of resources and services, regardless of colour, nationality, employment position, or educational achievement (Gill 2001:15). Mohammed (2019) defines public libraries as libraries that are community-based and provide equitable access to information to all community members in her study.

1.12.5 Rural areas

According to Unagha and Ibenne (2011), places are considered rural when they lack basic social amenities such as good roads, health care, power supply, pipe-borne drinkable water, schools, and markets, as well as being remote from urban areas. Rural settlements are informal settlements in urban areas that lack amenities such as good roads. According to these authors, rural dwellers are mostly illiterates, subsistence farmers, artisans, and elderly people, with a few young people. They live in poverty and deprivation as a result of a lack of these necessities of life (Unagha & Ibenne 2011).

Rural areas, according to Heimann (2010:2), are "sparsely populated areas where people farm or rely on natural resources, including villages and small towns scattered throughout the area." Heimann (2010:5) goes on to list the following rural issues in South Africa: underutilisation and sustainable use of local natural resources; limited access to socioeconomic facilities, public services, infrastructure, and other essential services; a lack of skills; unresolved land reform and land ownership issues; and untapped opportunities in agriculture, tourism, mining, and manufacturing.

1.13 STRUCTURE OF THESIS

This study is divided into six chapters, which are as follows:

Chapter One: Setting the scene

The first chapter discusses the study's introduction and background, conceptual setting, contextual setting, problem statement, aim, research objectives, and research questions, significance of the study, originality of the study, scope and delimitations of the study, ethical considerations, and definitions of key terms. The primary goal of this chapter is to establish the tone of the research.

Chapter Two: Provision of library services in rural setting

This chapter concentrated on conceptual frameworks and literature reviews related to bridging the information services chasm in rural areas lacking public library facilities. Concepts were developed from the research topic, and literature was reviewed using themes derived from the research objectives. The model used in this study guided the literature review.

Chapter Three: Research methodology

The third chapter discusses the study's methods and procedures. It discusses the research paradigm, research approaches and design, sampling, sampling methods, data collection instruments (interviews, participant observation, and document analysis), data analysis procedures, and the research instruments' credibility and dependability.

Chapter Four: Data presentation and analysis

The fourth chapter presents the findings from the data collected on the research topic, which was bridging the information services chasm in a rural setting lacking public library facilities.

Chapter Five: Interpretation and discussion of findings

Chapter Five interprets and discusses the research findings.

Chapter Six: Summary, conclusions and recommendations

Chapter Six summarises the findings, draws conclusions based on the findings, and proposes solutions that the researcher believes should be implemented. This chapter proposes a framework for bridging the information services chasm in rural areas where public library services are unavailable.

1.14 SUMMARY

The chapter introduced and presented the study's conceptual and contextual background, as well as the aim, statement of the problem, objectives, research questions, motivation, significance, and scope and limitations. The study's conceptual framework was also outlined. The significance of the study was articulated in this chapter, and thus the study's foundation was laid. The proposed thesis structure was also outlined.

The next chapter conducts a literature review on the provision of library services in rural setting.

CHAPTER TWO

LITERATURE REVIEW: PROVISION OF LIBRARY SERVICES IN A RURAL SETTING

2.1 INTRODUCTION

The previous chapter set the tone for this study by providing the following: introduction and background to the study; contextual setting; conceptual setting; statement of problem; aims and objectives of the study; conceptual framework; originality of the study; significance of the study; scope and delimitations of the study; summary of literature review; summary of research methodology; dissemination of findings; ethical considerations; definition of key terms; and the structure of the thesis. This chapter provides a literature review in relation to bridging the information services chasm in rural areas. Du Plooy-Cilliers, Davis and Bezuidenhout (2014) emphasise that literature reviews should put the research study into perspective, determine what previous scholars have written on the topic and identify the main models and theories that are relevant to the research study.

Several scholars provided the definitions of literature review. Abbas (2015:46) indicates that “the main purpose of the review is to draw the attention of readers to the important variables related to both the research problem and significant findings in the area under study as obtained in previous research. Its purpose is to share with the reader the results of other studies closely related to the one being undertaken. It also relates to the larger, ongoing dialogue in the literature, filling in gaps and extending prior studies” (Creswell 2014:61-62). Although the review of literature is very important in research, “the quality of the literature review determines the success and quality of academic work carried out. Methods and ways of conducting a review of the literature are generally argued” (Boell & Cecez-Kecmanovic 2014:257). According to Kumar (2011:31), one of the essential preliminary tasks when undertaking a research study is to go through the existing literature to establish the available body of knowledge in the researchers’ area of interest. A thorough literature review shows that a researcher knows what is already known and gives the researcher credibility in the field (Walter 2013).

Bless, Higson-Smith and Sithole (2013:49) state that "a literature review involves a search and study of current writings on the problem under investigation".

Bertram and Christiansen (2014:13) indicate that a literature review puts a research study into the context of previous research by showing how it fits into a field. These authors further explain that the literature review is a discussion of the important research that has previously been done in the field being researched (Bertram & Christiansen 2014:13). Bryman (2012:8) suggests that “a literature review is necessary because the researcher needs to be knowledgeable about what is already known about the topic under study”. On the other hand, Creswell (2014:26) advises that a literature study provides insights into ways in which a researcher can limit the scope to the needed area of inquiry. Neuman (2014:126) points out that the literature review process is conducted before attempting to answer a question. According to Jha (2014), the review of literature refers to identifying the entire body of knowledge, published or unpublished, related to the study area, studying the unfamiliar part, organising it, and then synthesising it in a unique way to provide a strong foundation for the current social research. Boote and Beile (2005:3) affirm that a literature review gives a theoretical basis for the research, helps shape the research study, and brings clarity and focus to the research problem (Kumar 2014). Creswell (2014) posits that a literature review helps to determine whether the topic is worth studying, and it provides insight into ways in which the researcher can limit the scope to a needed area. In other words, the literature review helps to identify problems that need to be investigated.

A literature review goes beyond the search for information and includes the identification and articulation of a relationship between the available literature and the focus of the research study (Boote & Beile 2005). Randolph (2009) argues that “a literature review can play an important role in:

- delimiting the research problem,
- seeking new lines of inquiry,
- avoiding fruitless approaches,
- gaining methodological insights,

- identifying recommendations for further research,
- seeking support for grounded theory,
- distinguishing what has been done from what needs to be done,
- discovering important variables relevant to the topic,
- synthesizing and gaining a new perspective,
- identifying relationships between ideas and practices,
- establishing the context of the topic or problem,
- rationalizing the significance of the problem,
- enhancing and acquiring the subject vocabulary,
- understanding the structure of the subject, and
- relating ideas and theory to applications”.

The review of literature was conducted in light of the study's objectives, which were to:

- identify information resources in a rural setting;
- determine accessibility of information resources in a rural setting;
- assess infrastructure available for providing information service in a rural setting;
- assess the effects of the unavailability of public library facilities on residents of rural; setting;
- determine factors inhibiting the provision of information services in a rural setting; and
- suggest a framework for bridging the information services chasm in rural setting.

A literature review helped the researcher to select an appropriate research approach for this study, as well as data collection tools used in related studies. The literature for this study was also reviewed in accordance with the concepts constructed from the research topic, in line with the conceptual framework for this study, which was aimed at bridging the information services chasm in rural areas. This was done in order to provide a complete understanding of the phenomena. As Jabareen (2009:51) would attest, a conceptual framework is a "network that connects concepts together; however, these concepts are unpacked in such a way that each concept plays its role in the study". Ngulube et al. (2015:59) indicate that a conceptual framework is mostly used in qualitative studies. This is because the aim of qualitative research is to understand the phenomena under investigation.

2.2 INFORMATION RESOURCES AND SOURCES IN RURAL SETTING

A variety of information resources can be found in rural areas, even though there is no access to community libraries. These information sources are important for rural dwellers' daily activities. Maepa (2000) shows how important information resources are in rural areas. According to this author, information resources should be available in print, audio, or audio-visual formats, depending on people's literacy levels and preferences for specific information products. Just like urban settings, rural areas also require information for developmental purposes and for decision-making in their day-to-day lives. However, the information requirements differ from one area to the next. Raju (2000) is of the view that information is a raw material for the development of both urban and rural dwellers. As a result, the prosperity, progress, and development of any nation depend on the nation's ability to acquire, produce, access, and use pertinent information. Mchombu (2000) argues that the information needs of rural communities vary with respect to new and complex problems that communities face every day. Despite the inadequate access to information, most rural areas have several sources of information. Rural dwellers' information needs are satisfied through various kinds of services. For example, reference services, which require information as an input. Appropriate information services delivery to rural areas can empower people to take actions that can transform their lives and provide them with a greater sense of independence (Xiangfeng, Jiali, and Di 2010). The development of the information services industry in rural areas can effectively promote rural economic growth (Ahsanullah 2011). Most of the time, people who live in rural areas have low productivity and social and economic backwardness. This is mostly because they don't know enough, which is partly caused by inadequate or poor information services (Raju 2000).

In Botswana, a study conducted by Nkabinde (1988) revealed that the major information sources used by community members were the leaders, the Bible, books, pamphlets, workshops, and the church, among others. In the Kenyan context, Muyasi, Lloyd and Doland (2003) carried out a research study, which revealed that farmers obtain agricultural information on pasture weed management technologies through agricultural offices, research stations, neighbours, agricultural shows, opinion leaders, farmer excursions, as well as seminars/training.

In their study, Odefadehan, Akinola and Odefadehan (2016) revealed that “the information sources/channels used to disseminate information to rural dwellers in Nigeria include town criers; oral information through face-to-face communication; neighbours; friends; age groups; elders; farmers' groups, village leaders, agricultural extension officers, family/parents; radio; TV; internet; books, brochures, films, leaflets, newspapers and magazines; colleagues; market places, churches; mobile phones; social/political meetings; traditional festivals; role play; songs and dance; demonstrations; lectures and exhibitions. It is important that rural dwellers’ information needs are known in order for public libraries to provide relevant information sources”. In a rural setup scenario, the community can visit the library for such information or the library can provide outreach services (mobile library) with repackaged information for such communities. Ngozi, Uche, and Ejiro (2015:95) opine that in order to thrive in this modern era, one needs a variety of information, no matter how well versed one is in a field or profession. Therefore, the progress of modern societies and individuals depends on the right kind of information in the right form at the right time. Information is needed to be able to make the right decisions and reduce uncertainty (Yusuf 2012).

In Nigeria, studies conducted by Daudu and Mohammed (2013), Mtega and Ronald (2013), Patience (2015) and Ezema (2016) revealed that “the information needs of rural communities in Nigeria can generally be categorised into health, agriculture, education, housing, employment, transportation, welfare, family, legal information, crime and safety, policies and government, land and human rights, markets, civics, politics, finance (credit), academic, leisure, international news, occupations, farm inputs, adult literacy programmes, social services, and religion”.

In rural areas, rural dwellers need information for agriculture, health, social, and political purposes. As indicated in the introduction, Harande (2009:3) asserts that “the information needs of rural people are mainly classified into health, agricultural, educational, housing, employment, transportation, religion, welfare and family, and legal information”. Sife (2010) also found that information needed by rural communities includes information on health, information on rural development programmes, academic information, legal information, and agricultural extension

and advisory services. A study by Kwigizile, Chilongola and Msuya (2011) and Siyao (2012) assessed how rural communities accessed different types of information.

The findings of the study revealed that rural communities used various sources to access the information they needed for their day-to-day activities. On the other hand, a study by Kwigizile et al. (2011) revealed that rural dwellers accessed information through friends and relatives, radio, and internet services provided by the telecentres. Personal experiences, telephones, health centres, churches, local authorities, and extension officers were also information resources accessed by the rural dwellers.

Similarly, Siyao (2012) discovered that rural dwellers rely mainly on information found on radio, newspapers and magazines, television, cellphones, and face-to-face communication for accessing information. Ngoepe et al. (2017), Kwigizile et al. (2011), and Siyao (2012) agree that radio and face-to-face communication are the most used information sources in rural areas. Through face-to-face communication, Mtega and Ronald (2013) indicate that the main information sources were talking and listening to parents, family, and friends during meetings and seminars and through the extension officer.

Additionally, a study conducted by Mtega and Ronald (2013) in Tanzania revealed that other sources of information include leaflets and posters, extension officers, libraries, internet services, and researchers. This is not the case in areas like Taaiboschgroet in the Limpopo Province, where there is absolutely no access to public libraries, leaflets, posters or the internet due to poor connectivity. This has also been noted by Ngoepe et al. (2017) in their study entitled "*Bridging the information gap through career expos to rural school learners in the Makgabeng village in the Limpopo Province*", which found that the internet was very bad due to poor network coverage and rural community members relying on radio and television, as almost every household is electrified, even though electricity was not reliable due to load shedding. This demonstrates a lack of trust in information access; thus, it is critical that communities have libraries for easy access to information. On the other hand, a study by Siyao (2012) revealed that the ownership of mobile phones and TV sets in rural communities was low. This could be the case in Taaiboschgroet village.

Different people use different information sources depending on their information needs. In Ethiopia, Tsehay (2014) indicated that “the information sources used by rural women to satisfy their maternal information needs were health extension workers and health professionals, friends and family, radio, booklets and brochures”. Information sources serve as a means of disseminating or communicating information to rural dwellers. Thus, information sources or channels are considered the most important aspect of an information system in a society (Williamson 1998). Anyanwu (2008) is of the opinion that no matter how relevant information might be, if it is wrongly packaged or transferred, it will never reach the target audience successfully. Wilson’s (1981) model suggests that information-seeking behaviour arises from the recognition of a need perceived by an information user who, in order to satisfy that need, seeks information from formal or informal sources that may result in success or failure. So, everyone agrees that the best way to get information to a population is through the right channel (Momodu 2012:91).

Research from South Africa (Hart 2011; Ngoepe et al. 2017; Mojapelo & Ngoepe 2020); Botswana (Mutshewa, Grand, Totolo, Zulu, Sebina & Jorosi 2010); and Tanzania (Mtega & Ronald 2013) has shown that the information needs of rural dwellers revolved around areas such as pensions, business, crime, agriculture, transport, proper housing, transport and communication systems, and basic health care. Other areas included literacy programmes, current affairs, job adverts, legal matters, career development, non-governmental organisational activities, and politics, among others (see Table 2.1 for a summary of the information needs of people in different countries).

Table 2.1: Summary of information needs of different people in different countries

Author	Name of	Users	Information needs
Jiyane (2002)	South Africa	Rural dwellers (women)	Agriculture, proper housing, transport, crime, business and health
Zou and Zou (2014)	China	Elderly people	Physiological needs (food, clothing, pension health and shelter)
Vavrek (1995)	USA	Rural Americans	Social activities such as hobbies, investment, reference techniques, local and national news, and health
Thanuskodi and Pandiselvi (2014)	India	Rural dwellers	Fishing, rice paddies, palm oil, rubber, agriculture, health, education, religion, business and career opportunities
Ezema (2016)	Nigeria	Rural communities	Transportation, health, education, agriculture, employment, crime and housing
Marcella, McConnel, More and Seton (1996)	Scotland	Rural dwellers in general	Agriculture, forestry, fisheries, tourism and food

According to Table 2.1, the majority of rural people worldwide require agricultural information. This could be due to the fact that farming is uncommon in urban areas. People who live in rural areas are more likely to be interested in agriculture. Information sources are used to meet the information needs of rural residents. Rural residents prefer these information sources because they have limited access to public library services. According to research, rural residents use a variety of sources. Table 2.2 summarises the information sources used by various people in rural areas.

Table 2.2: Summary of information sources used by different people in rural settings

Author	Country	Users	Information sources
Maepa (2000)	South Africa	Rural dwellers	Radio, friends, neighbours and professionals (teachers)
Nkabinde (1988)	Botswana	Community members	Bible, workshops and churches
Kiondo (1998)	Tanzania	Rural women	Friends, relatives, village leaders and hospitals
Muyasi, Lloyd and Donald (2003)	Kenya	Farmers	Neighbours, farmers excursions and opinion leaders
Naveed, Anwar and Bano (2012)	Pakistan	Rural farmers	Friends, relatives, co-farmers, neighbours
Tsehay (2014)	Ethiopia	Rural women	Health extension workers, friends, families and radio

2.3 ACCESSIBILITY OF INFORMATION RESOURCES IN A RURAL SETTING

Rural dwellers need access to accessible information sources on a daily basis. Maepa (2000) indicates that there are information resources in rural areas, but they are not always in a format that most of the users can relate to, especially in the context of a rural environment that is generally characterised by high levels of literacy. It is crucial that rural communities have access to information resources in rural areas. As it was indicated in the introduction part of this thesis, rural dwellers need information for various reasons. As such, it is important that information resources are accessible at all times. The DAC (2014:20) defines access as the extent to which library facilities and services are available to as many people as possible. The principle of access, as articulated in the *Batho Pele White Paper* (Department of Public Service and Administration 1997), stipulates that all citizens should have equal access to services to which they are entitled.

Access to information is a human right. Various international and national instruments reiterate this right (DAC 2009; Department of Public Service and Administration 1997; UNESCO/IFLA 1994). However, Hart (2010) notes that there does not seem to be a common understanding of what "access" really means.

For example, in her research in South Africa, Hart (2010) pondered on the question and concluded that apart from geographic access, which still seems to be a challenge, an understanding of the information needs of rural communities whose access to information is the focus is still lacking.

Information is important for developmental purposes. Therefore, rural communities need effective information services daily. Yongling (2009) notes a service station, a farmer's home, and an association model as models that can be used to provide information services in rural areas. The author refers to the service station as an information service centre, providing information services to rural communities. These kinds of services are not available in disadvantaged rural communities. This is believed to be due to the lack of information service infrastructure in rural areas. To show that this is true, Das and Dutta (2004) say that information infrastructure is very important for development.

In her study, Mtega (2012) notes the poor accessibility of information in the rural areas of Tanzania. The author further reveals that in 2008, most print publications were only circulated in urban areas, leaving rural areas with few publications. This could be due to a lack of libraries to house some publications in rural areas. The poor accessibility of information in rural areas is experienced worldwide, leaving rural dwellers with no choice but to access information from sources that are not very reliable. Kiondo (1988) conducted a study on rural women and their information-seeking behaviour which showed that women access information through village leaders, hospitals, and friends. A study conducted by Sultana (2014:27) found that little attention had been given to the role of rural public libraries in the overall development of India. Sultana (2014) states that rural libraries have not been developed, and the principal victims have been the rural communities, who, because of information poverty, lack the individual means to become literate and also because of their level of illiteracy, poverty, or poor health. Nyana (2009:9) observed that the major hindrances to the effective provision of information and services in Africa

were inappropriate collections, high levels of illiteracy, and not incorporating oral tradition into the provision of information services, among others. Salman, Mostert and Mugwisi (2014:38) opine that in Africa, public libraries should be charged with the responsibility of providing information services to support local businesses and economic and workforce development, among others.

Access to information in rural settings should be a priority. Rural dwellers should be able to access reliable information in their daily lives. Harande (2009) believes that community advancement can be ensured when rural residents have access to information and use it effectively. Onyenachi, Akidi and Onyekweodiri (2015:41) emphasise the importance of access to information in rural areas. The authors believe that access to information enables people to "know their rights as regards to welfare and support to deal with social discrimination in society". Besides, most rural dwellers lack information about their rights. The model of information service provision by Mtega and Ronald (2013) articulates the important elements that need to be taken into consideration when providing an information service. Among them are social factors, as supported by Onyenachi et al. (2015).

This alone shows how important it is for rural dwellers to have access to information because some rural dwellers do not even recognise when there is a need for information. Therefore, their information-seeking behaviour should be checked and assessed at all times by information professionals. In this case, public libraries would play a critical role in providing a wide range of information services in rural areas to all community members, free of charge (Obasi 2015:6). Although there is limited access to public library services in rural areas, rural dwellers seek information from available sources.

In her study, Mahwasane (2008), who assessed "the provision of library services to disadvantaged schools in Limpopo", states that learners and teachers would approach other institutions such as clinics when they needed information on their schoolwork. Jacobs and Herselman (2006) assert that information is a driver of development through knowledge, but it only becomes valuable and significant if it can be accessed.

2.4 INFRASTRUCTURE AVAILABLE FOR PROVISION OF INFORMATION SERVICES IN RURAL SETTINGS

For the library to achieve its goal of providing information and access to its users, library infrastructure plays a major role. According to Iwhiwhu and Okorodudu (2012), library infrastructure includes chairs, bookshelves, tables, toilet facilities, ICT facilities, library space, restaurant/coffee room, lighting and ventilation, parking space, catalogue systems, fans, and air conditioners. Similarly, Awana (2007) asserts that library infrastructure entails facilities and equipment that help in achieving the effectiveness of the services rendered by the library. Infrastructural support is important in library services to enable the librarians to deliver quality services to their clientele. It may also enhance librarians' careers and productivity.

According to Ogbuagu, Ubi, and Effiom (2014), library infrastructure is comprised of a generating set, electrical installations, ICT facilities, furniture, fittings, information materials, and a library building. The function of library infrastructure in the management and discharge of essential library services to patrons has been acknowledged in contemporary literature (Saleem, Shabana-Tabuum & Sadik-Batcha, 2013). Omeluzor et al. (2017) found that the 16 public libraries in Delta State, Nigeria, were not able to do their job of providing quality information services to the rural people of Delta State because they didn't have the right infrastructure and facilities.

In the South African context, there are public library infrastructure grants for projects that assist in improving public library infrastructure, including buildings and information technology systems. The Library Council identified the following strategic priority areas for the public library infrastructure grants program: library buildings and spaces; mobile libraries; information and communications technology projects; and cooperative library development activities.

The purpose of the conditional grant is to transform urban and rural community library infrastructure, facilities, and services (primarily targeting previously disadvantaged communities) through a recapitalised programme at provincial level in support of local government and national initiatives (DAC 2015).

Other rural information services include things like signal towers to transmit radio waves to enable radio/TV programmes/stations to be accessed, signal towers for internet data transmission/wi-fi access, and shops selling reading materials.

2.5 EFFECTS OF UNAVAILABILITY OF PUBLIC LIBRARY FACILITIES TO RESIDENTS IN RURAL SETTING

As a place that provides access to knowledge, libraries play an integral part in the introduction and circulation of new ideas to their communities (Nicholson 2017:1). Therefore, information and services in public libraries have become a catalyst for individual and community development. Nkondo, Brown, Dick, Hart, Molawa, Nassimbeni, Seleti and Teffo (2014: xxiv) define "public library" as "a set up by government authorities, at local, provincial, or national level, to serve a geographical area or community". The South African DAC (2013) regards libraries as very valuable social resources, giving job seekers, entrepreneurs, students, and learners access to information, the internet, and photocopy facilities, in addition to serving the reading needs of the public. Therefore, the provision of effective information services is the main aim of public libraries in order to satisfy the information needs of their users. Provision of public library and information services entails acquiring, organising, and making relevant information resources accessible through appropriate facilities and means best known to the users (Iwhiwhu & Okorodudu 2012). So, giving people access to public library services is a way to improve their literacy and education and make it easier for them to use information that is important to their daily lives (Oni, Nomuje & Oshiotse 2014).

Nkondo et al. (2014:53) indicate that "a public library is recognised as an essential component of a modern democracy, an enduring agency tasked with providing opportunities for education, culture, literacy, and information provision to reach all citizens free of charge." Bopape, Dikotla, Mahlatji, Ntsala and Makgahlela (2017:2) indicate that "the democratic government in South Africa, through the Department of Arts and Culture (DAC), has made available the conditional Community Library Services Grant to also redress the imbalances and inequalities in the Library and Information Services (LIS) sector". The conditional grant is provided in order to improve and refurbish existing library and information services, establish new libraries, and purchase new books for public libraries (Bopape et al., 2017). Malotle and Selwana (2016:11) state that "this

conditional grant is allocated annually by the Department of Arts and Culture to all the nine provinces in South Africa".

Bopape et al. (2017:2) indicate that the DAC and the provincial departments of arts and culture work together to reach certain predetermined targets, which are:

- “improved coordination and collaboration between national, provincial, and local governments on library services.
- transformed and equitable library and information services delivered to all rural and urban communities.
- improved library infrastructure and services that reflect the specific needs of the communities they serve.
- improved staff capacity at urban and rural libraries to respond appropriately to community knowledge and information needs.
- An improved culture of reading”.

According to the Library and Information Association of South Africa (LIASA) (2015:40), “public and community libraries could focus on expanding their libraries in preparation for welcoming the 21st century library user through the conditional grant through the following:

- ICT infrastructure and free internet access
- Enhancing staff capacity and training
- New libraries and library upgrades to the existing buildings
- Mobile library units
- Toy libraries
- Mini libraries for people with visual disabilities
- Purchase of school textbooks and other library collection
- Gaming equipment is installed in libraries
- Library automated systems

- Reading programmes and literacy campaigns.”

The DAC drafted the South African Public Library and Information Services Bill (2012), which aims to ensure consistency in the delivery of public library and information services in the country; puts in place measures to ensure redress of the inequalities in the provision of public library and information services; and provides for principles, norms, and standards for the provision of public library and information services. However, there are still several rural areas where public libraries are not established. The Taaiboschgroet village is one of the rural communities in South Africa that does not have access to public library and information services.

In the South African context, the provision of access to information through public libraries was hampered by the inequalities of the apartheid laws. Despite the availability of the library conditional grant in this democratic era, the issue of the unavailability of libraries in rural areas is still prevalent.

Emezie and Igwe (2017:76) assert that various scholarly works have reported on the absence of library and information services provision to rural dwellers in order to address their information needs for sustainable development. The DAC is the national department in South Africa that is in charge of public library services. It says that former apartheid spatial planning has affected where many public libraries are located, which means that many rural areas are not well served or not served at all (DAC 2014).

Community members should have a choice of whether they want to use public library services, hence the importance of access to such services. Arguably, the absence of such a choice implies continued marginalisation. From a cultural and intellectual point of view, libraries are seen as places for the "educated elite" and are therefore seen as a luxury (DAC 2014).

Real and Rose (2017:1) indicate that rural America faces significant challenges, which include the lowest home broadband internet adoption rates, the lowest employment and economic growth rates, the fewest physicians per capita, and the lowest educational attainment rates. Having been faced with these challenges, rural libraries are part of the solution to address these concerns—often providing the only free public computer and internet access, and assisting patrons in gaining

technological skills to pursue employment, entrepreneurship, and educational opportunities online. This could mean that rural areas with no access to public library services are not able to overcome the same challenges faced in other rural areas.

2.5.1 The importance of public libraries in providing information service in rural areas

Public libraries are considered vital amenities for rural communities to have equal access to a wide range of library and information services. According to the Management Association, Information Resources (2016:535), public libraries have always been described as a democratising force in that they serve and provide access to information to those who could not otherwise afford such access. Little has been researched on the effects of the unavailability of public library services in rural areas, but research has been done on the role of public libraries. Among other roles that the public library plays in rural areas are access; information (reference) services; books, journals, and magazines; special services; lifelong learning; cultural and social activities; the internet and e-government (Ledwaba 2018; Management Association, Information Resources 2016). For example, it has been noted that for e-government to have an impact, access to infrastructure and user skills is critical.

In many African countries, access and user skills are the main constraints to proper development of e-government (Management Association, Information Resources 2016). This is where public libraries could come in to provide access to the internet and training, and to assist users to access government information and services. From these services, one can deduce that the unavailability of public libraries in rural areas is detrimental to rural communities.

Nicholson (2017:1) opines that, "as a place that provides access to knowledge, libraries play a part in the introduction and circulation of new ideas to their communities." This author further states that "the importance of libraries as a community meeting place providing opportunities for socialisation will also be emphasised with a need for libraries to provide social enrichment for seniors to combat issues such as isolation and associated mental health problems" (Nicholson).2017:8). On the same note, Dasgupta and Pieterse (2009:406) observe that public libraries, including rural, urban, local, branch, and mobile library services, are major social institutions in communities around the world.

Folorunso and Folorunso (2010) indicate that "public libraries in Nigeria have served to promote good reading culture and provide educational opportunities for both rural and urban dwellers." Singh (2015:2) posits that public libraries are primarily institutions of basic learning with a mission to provide collections and services to meet the information needs of the local community. Haggström (2016) highlights that the other functions of libraries include facilitating lifelong learning as the driver of knowledge creation and access to information, assisting with the search process and evaluating credible sources, and providing computers for internet access.

2.6 FACTORS ENABLING AND INHIBITING THE PROVISION OF INFORMATION SERVICES IN RURAL AREAS

This section discusses factors stimulating and inhibiting the provision of information services in rural areas.

2.6.1 Factors enabling the provision of information services in rural areas

There are factors enabling access to information services in rural settings. These include good telecommunication infrastructure, a good road network, and high literacy levels, resulting in a good ability to search for information in various sources. In order to satisfy these information needs, it was indicated that rural dwellers relied on information from friends, neighbours, relatives, village heads, religious leaders, and traditional healers. Maepa (2000) discovered that rural dwellers relied heavily on radio, friends, neighbors, acquaintances, and professionals such as teachers and nurses when seeking information to meet their day-to-day activities. These sources, outlined by Maepa (2000), are the key enablers of access to information in rural settings.

To bring rural dwellers into a central focus in social development, they must be well acquainted with relevant information that can lead them to make the right judgement calls and decisions that affect their lives and existence. Through the effective use of information resources, the information-rich countries have advanced technologically, while the information-poor countries are yet to find their feet.

2.6.2 Factors inhibiting the provision of information services in rural areas

There are various factors inhibiting the provision of information services in disadvantaged rural areas. Kamba (2009:3) indicates that public libraries need to determine the purpose of the information they provide to library users and the materials users require, together with challenges faced by users when seeking information in libraries. According to Kamba (2009), rural communities in Africa constitute a high percentage of the population whose information and development needs are inadequately met and, consequently, they have not been able to enjoy the benefits thereof. In South Africa, Sikhakhane and Lubbe (2005) noted that many rural dwellers are deprived of their right to access and receive readily prepared and correct information. Ejedafiru and Toyo (2015:23) opine that access to, and provision of, information in rural communities is largely caused by "lack of basic infrastructure, low levels of literacy, the lack of adequate and relevant information resources and services, as well as the absence of literacy programmes." The following are the main information provision challenges noted by Ngoepe et al. (2017); Lwoga (2009), Mtega and Malekani (2009), Opara (2008), Swai (1998), Ozowa (1997), and Aina (1990) that rural areas are facing:

- Poor infrastructure
- Impassable roads
- Limited access to telecommunication networks
- Poor electrification
- Institutional and individual problems
- Lack of unreliable physical infrastructure for electronic information sharing
- Inadequate technologies for delivering electronic information
- Lack of organised systems for the provision of information
- Lack of skills/expertise in information among providers and users of information
- Low literacy level

- The limited availability of radio and television sets
- The lack of financial resources
- Human capacity
- The lack of legal frameworks at national and international levels to support the provision of information services to rural areas
- Poor quality of information services
- Poor information centre management
- Low bandwidth
- Outdated and irrelevant materials
- Lack of ICT facilities

In his study, Maepa (2000) noted the unavailability of community centres as a major challenge in rural areas. Information dissemination in rural areas requires an appropriate choice of information resources. In their study, Chinwe, Ogbonna and Osuchukwu (2014) discovered that textbooks, newspapers, picture books, television, audiovisuals, and radio were among the information sources offered in Nigerian information centres. According to the Food and Agriculture Organization (FAO) of the United Nations (2006:3), farmers, advisory officials, and researchers in rural areas exchange information, knowledge, and skills for growth through personal interaction and media such as radio, print, and ICT. As such, information delivery to rural populations necessitates the use of proper communication methods (Daudu & Mohammed 2013:235).

2.7 A FRAMEWORK FOR BRIDGING INFORMATION SERVICES CHASM IN RURAL SETTING

Several scholars suggested a framework for bridging the information service gap in rural areas. For example, Maepa (2000) emphasises the importance of services provided having to be adaptive to the characteristics and information-seeking patterns of the people likely to be served. Sturges and Neill (1993) also indicate that "there was a growing perception amongst African

libraries in general, that a new type of library and information service, with a totally different approach to information service provision, targeted towards rural villagers, was an absolute necessity."

Public libraries play a vital role in information dissemination and knowledge creation among both the developed and developing communities (Dent et al. 2014). Ensuring that information services are rendered in rural areas will help rural communities develop, thus fighting against poverty and illiteracy. Maepa (2000) believes that rural communities, being the focal point of all efforts aimed at rural information service provision, should be at the core. Nwokocha and Chimah (2016) indicate that "community information enables individuals to make informed decisions relating to themselves, their dependants, and their communities, and can promote participation, social inclusion, and access to the democratic process."

As such, there should be plans in place to disseminate information resources among community members in a more effective and efficient way. Nwokocha and Chimah (2016) and Maepa (2000) agree that for information services to be delivered to communities effectively, they should be disseminated through a bottom-up model where community members on the ground are the ones stating their information needs. The authors promote a community-centred model of information provision in rural areas. Lately, Mojapelo and Ngoepe (2020) are propagating the spirit of "*Thuma mina*", whereby community leaders are determined to pick up the baton when officialdom does not listen to them. *Thuma mina* (meaning send me) "is the persistent motif and injunction of South Africa's President, Cyril Ramaphosa, as pronounced first in his inaugural State of the Nation Address (SONA) on February 16, 2018" (Mojapelo & Ngoepe 2020:110).

Nwokocha and Chimah (2016) suggest an innovative approach to providing information services in rural areas. To achieve this, they outline the following important key factors to ensure effective information dissemination in rural areas:

- Rural information dissemination should emphasise change and be dynamic;
- A prototype information support system for rural development projects, which takes policymakers, researchers, change agents, and the rural people themselves into account;

- Available public libraries to cooperate with the media and government information units to package information for users;
- Public libraries or qualified community members should organise book talks, lectures, and audio-visual presentations;
- Information professionals to understand and be guided by the socio-cultural peculiarities of rural people;
- Consider social attitudes and behaviour patterns are dictated by traditions of rural people, as rural people are believed to be highly conservative, traditional and dogmatic in their approach; and
- Reappraisal of the problem of literacy among the rural communities since it affects their accessibilities to, and utilisation of information.

From the above factors to be considered when attempting to bridge the information services chasm, one can deduce that information disseminators are required to ensure that they do not just provide information to communities but also that communities understand the information provided to them. This is because rural communities are mostly populated with illiterate people, and these people lack reading and writing skills (Aina 2004).

Nwokocha and Chimah (2016) discovered that "the rural populace suffers from an acute low productivity, social and economic retrogression due mainly to ignorance, which is also a direct consequence of either inadequate or total absence of information dissemination". This indicates the need to encourage effective communication between information providers and information receivers (the rural population). In his study, Maepa (2000) suggested a model that can be used to ensure fair information service provision.

This model is intended to serve as a blueprint for information service provision in a challenging rural environment and it deviates from the traditional library model, which operates as a top-down approach and has been proven to be inadequate for rural villagers as it is not consultative but rather authoritative. There are 10 stakeholders in the model for information provision, which are rural communities; LIS professionals; LIS trainees; chiefs and headmen or headwomen; provincial library and information services; private sector companies; community-based and non-governmental organisations (NGOs); community information centres; transitional local councils; and local business people. These stakeholders should be consulted when planning for information

service provision in rural areas.

Mtega and Ronald (2013) suggest a model that can be used in bridging the information services chasm and outline important aspects to take into consideration when providing information services to different people in rural communities. The model has elements such as cultural factors, social factors, political factors, legal factors, economic factors, rural information access points, rural information services (RIS), usage of RIS, perceived usefulness of RIS among rural communities, types of services, and number of services.

The following section discusses the elements found in the model that are aimed at ensuring the provision of information services in rural areas:

- **Cultural factors**

People living in rural settings have different cultural beliefs; for example, some groups believe in an indigenous style of living. For instance, they slaughter cows during different kinds of celebrations such as weddings, the unveiling of tombstones, graduation parties, or praising ancestors, which is usually called *mophaso* in Sepedi. When doing *mophaso*, for instance, older women drink traditional beer, normally called *mqhombothi* or *sepanakariki*, then prepare a snuff known as *fola*. Then, on the day of *mophaso*, all the family members kneel next to what is called *sethokgolo*, put *fola* around it, and pour *mqhombothi* from their mouths onto the *sethokgolo*, while, at the same time, telling the ancestors what they want in their lives. These cultural beliefs exist to help rural residents function on a daily basis. Therefore, it is important that rural dwellers have access to information pertaining to their culture in their communities.

This will also help the younger generations to know what to do when there is a funeral, when a last-born passes on, when one comes back from initiation school, when a chief dies, when a royal person gets married, and so on. For instance, when a person comes back from learning how to be a traditional healer, there are foods that need to be cooked for the people who bring the person back. This type of information would be provided to rural residents by public library facilities as well as older community members. Some indigenous knowledge or practices residing in the communities can be stored or preserved in libraries if repackaged. The communities can work with libraries on sessions like storytelling, discussions, and cultural displays, where such knowledge can be

imparted. The need for information and the ability to generate information are not exclusive to any culture or society (Opara 2018). While information processing is the basis of all social interaction, the type and relative complexity of information involved may vary a great deal. This variation can be accounted for in the differences in the levels of information infrastructure development, such as between urban and rural areas, and the ability of the intended receiver to access and utilise information (Nwokocha & Chimah 2016).

- **Social factors**

Rural dwellers are normally prone to diseases caused by a lack of information on what to eat when they have certain illnesses. Public libraries could provide information on different kinds of diseases, their symptoms, and the medicine needed to treat such diseases. This is because the area under study does not have a clinic, and therefore the people need money for transport to visit the nearest clinics. Going to the hospital is even worse, as the nearest hospital is very far away and it is difficult for disadvantaged people to access these kinds of services. Another social factor that has been affecting most people recently, especially the younger generation, is divorce. Although there are many factors that contribute to divorce, public libraries would at least provide young couples with information regarding marriage, its advantages and its negative sides. People would then go into marriages knowing exactly what to expect or what to do when there are challenges. In terms of crime and safety, information is required on how to prevent crimes, report crimes, the role of law enforcement agents, religions, recreations, and cultural activities. For welfare and family matters, Nwokocha and Chimah (2016) indicate that information is required on problems relating to marriage, childcare, and juvenile delinquency.

- **Political factors**

Information is needed on the political rights of the people and how they can exercise these rights. Factors impeding the success of rural communities include political, physical, infrastructural, socio-economic, and cultural constraints (Nwokocha & Chimah 2016). Rural areas have poor infrastructure, resulting in most rural dwellers' mostly deciding to burn down the state infrastructure to force the

government to provide them with services; therefore, the burnt libraries in their areas. Ntsala and Mahlatji (2016) note the proximate cause as poor local governance, which contributes to politics of excess. This clearly implies that rural dwellers are not information literate; hence, they take to burning government infrastructure. Although some rural dwellers burn libraries during strikes, the existence of public libraries in rural areas would help the community members make informed decisions. An informed community will not turn to crime. They would resolve matters responsibly.

- **Legal factors**

In terms of legal matters, information is needed on laws that affect rural dwellers. Such laws range from marriage to land. There is a distinct gap in the delivery of public interest legal services in rural areas. However, organisations such as the Alliance for Rural Democracy (ARD) have worked to mobilise legal practices' resources to do more pro bono work (Nwokocha & Chimah 2016). These authors further state that it is through public libraries that rural communities will be informed of legal issues affecting rural communities. This contributes to a high crime rate and people not knowing their legal rights.

- **Economic factors**

Aboyade (1984) provides an important view on the disturbing issue of information provision for mass mobilisation from the rural grassroots upward, and highlights that its implementation will address problems in developing countries towards economic reconstruction, which shifts the emphasis from urban development to rural development. Rural areas are mostly inhabited by people with low economic potential, illiterates, semi-illiterates, and school dropouts, among others, who have limited or no access to information (Unagha & Ibenne 2011).

- **Rural information access points**

These access points are the places where rural communities gather and access information. They are not available in the area under study; therefore, they were not applicable for this study. However, if there were information access points in rural areas, community members would at least have access to information even though it could not be compared to that rendered in public

libraries.

- **Rural information services**

Rural information services are needed for the community to make informed decisions in their day-to-day activities. These services should be provided in accordance with the needs of the community. The area under study is rural, and services that are essential for rural areas are educational, agricultural, legal, or health services. It is only through the accessibility of information that the information pertaining to the needs of rural communities can be provided.

- **Perceived usefulness of RIS among rural communities**

This is the stage where relevant officials (information providers) assess the community itself and find out what kind of information the community needs most of the time. This could ensure the provision of relevant information services among rural communities.

- **Rural communities**

These are the stakeholders that are also available in the model proposed by Maepa (2000). The community members are those in need of information service provision in their areas. Data for this study were collected from these stakeholders as the perceived beneficiaries of information service provision.

- **Types of services**

The types of services in rural communities are determined by the types of people living in a particular community. Some people in rural areas are still farmers; some have spaza shops; some work at community schools; and some are domestic workers. These people are the ones determining the type of information service that should be provided in an area.

- **Number of services**

This factor is determined by the number of people who live in a given area. This will be determined after the relevant officials (information providers) conduct a needs assessment of the community.

- **Usage of RIS**

RIS are used for a variety of purposes. Rural residents require information in almost all human endeavours. Rural development and transformation are only possible, effective, and relevant when rural dwellers' information needs are met, because information is central to human existence. As a result, it is the lifeblood of any organised society. That is why, since the dawn of civilisation, man has needed information not only to survive, but also for business and even to satisfy curiosity (Nwokocha & Chimah 2016).

According to the research, it is necessary to develop a framework that does not necessarily involve government intervention because the Department of Sports, Arts, and Culture, which has the mandate to build and develop libraries, is not doing enough in rural settings. This study's Chapter 6 contains the researcher's proposed framework. The researchers consider the type of information required in rural settings, as well as the involvement of community members such as local shop owners, NGOs, Chiefs, and LIS professionals in ensuring access to information in rural settings. According to the provisions of the literature reviewed in this section, the proposed framework entails the types of services that should be provided to the community under study. According to Mtega and Ronald, sessions such as storytelling will be performed (2013). The proposed framework is thoroughly discussed in Chapter 6.

2.8 RELATED STUDIES

This section covers research findings related to the current study. The paradigms, approaches, research methods, and data collection instruments used were all considered by the researcher. These studies were conducted in a variety of settings. However, the researcher also considered those that focus on rural information services and information sources. The emphasis was on research conducted in South Africa.

Mohammed (2019) conducted research on the provision of public library services to meet the information needs of rural residents in Nigeria's Northwestern zone. This author investigated the information needs of Nigerian rural dwellers, the skills that rural dwellers use to identify, access, and use information in public libraries, the information sources and services used by rural

dwelling, the channels that public libraries use to provide information services, and the challenges that rural dwellers face when accessing information from public libraries. Despite the fact that the research paradigms and approaches used are different, this study is related to the current one. Mohammed (2019) used the pragmatism paradigm with a mixed methods approach. The needs of rural dwellers were discovered to be related to agriculture, education, health, economy, culture, rural development, government policies, and recreation. However, it is worth noting that one of the challenges faced in rural areas is that books are mostly published in English, but rural dwellers are unable to read and write.

Jiyane (2002) conducted an exploratory study on the availability and exploitation of information by rural women in Melmoth, KwaZulu-Natal. This study concentrated on women. According to the findings, there is a suitable demand for information on agriculture, health, education, business, legal, career opportunities, and self-help-related activities. These findings are consistent with those of Mtega and Ronald (2013), who propose a model for providing information services in rural areas. This model served as a guide for this study. According to Jiyane (2002), the major challenges faced by rural women are illiteracy, time, a lack of formal places for information access, and poor infrastructure. According to Ngoepe et al. (2017), the most significant challenge in rural areas is a lack of infrastructure. Ngoepe et al. (2017) defined poor infrastructure as internet connectivity in rural areas, cellphone coverage, and a lack of libraries.

Mahwasane (2008) conducted research on the provision of library services to disadvantaged schoolchildren in South Africa's Limpopo Province. The findings revealed that, in addition to the library, learners and teachers frequently approach individuals from institutions, family, and friends to obtain information for schoolwork. They also reached out to teachers, nurses, church ministers, radio, television, and textbooks, among others.

2.9 SUMMARY

This chapter reviewed the literature on the provision of library information services in rural areas. The review of literature is linked to the conceptual framework used in this study. The first section of this chapter identified the information resources available in a rural setting. Following that, it examined the accessibility of information resources in rural settings both globally and in South Africa. The researcher also looked into the availability of infrastructure for providing information services in rural areas. Another investigation looked into the effects of the lack of public library facilities for residents of rural areas. The rationale for investigating information services in rural areas through literature was to gain a better understanding of the current state of information service provision in rural areas in order to propose a framework for bridging the information services chasm in a rural setting. According to the literature, rural residents require information on health, education, farming, and employment. Information access in rural areas is difficult due to a lack of public library facilities and a poor internet connection. This is true in a number of countries. For a long time, rural residents have had limited access to public library facilities. History has shown that information accessibility in urban areas is adequate and sufficient. The issue of insufficient access is centred on the issue of poor infrastructure in rural areas. Some rural residents decide to use their cellphones to access online information. However, research indicates that the rate of unemployment poses a serious threat, as people must purchase data bundles to access information online. The following chapter goes over the research methodology used in this study.

CHAPTER THREE

RESEARCH METHODOLOGY

3.1 INTRODUCTION

The preceding chapter's review of literature demonstrated the significance of providing information services and resources in a rural setting. The objectives of this study guided the literature review, which was directed by the conceptual framework used in this study. The review of the literature revealed a significant number of studies on the provision of library and information services in rural areas. The researchers work in the field of library and information services. The review of literature revealed the need for daily access to information and assessed the availability of information resources in rural settings in order to develop a framework for bridging the information services chasm in rural areas. The literature review served as a guideline for determining the paradigm, approaches, and sampling procedures for this study, as well as revealing appropriate data collection strategies.

This chapter describes the procedures used to conduct this study, including the research paradigm, research method, research approach, research design, study area, target population, sample size, sampling procedures and techniques, data collection instruments, and ethical considerations. This chapter aims to provide a road map for the research methodology used in this study. The significance of research methodology stems from the desire to "highlight the broader field of discussions about methods and the relationship between methods and theories" (Alasuutari, Bickman & Brannen 2008:82). "Methodology is central to the research process, because it is the lens through which a researcher looks when making decisions about acquiring knowledge on social phenomena and finding answers to research questions" (Ngulube 2015:6).

This chapter delves into the philosophical assumptions that underpin research. The aim is to place the research into context while outlining the steps and processes involved in conducting this research. The philosophical assumptions aid in the selection of participants, as well as the data collection process and data analysis.

According to Kumar (2011:5), research is conducted within "a framework of set rules, philosophy, principles, and formal conditions that ground and guide scientific inquiry in order to organise and increase the researcher's knowledge about the chosen phenomenon."

According to O'Sullivan, Rassel and Berner (2008:25), research methodology includes the following steps:

- “Deciding when data would be collected and how
- Developing or selecting measures for each variable
- Identification of study sample or test population
- Making a choice of how study subjects would be chosen
- Planning how data would be analysed”.

The research methodology roadmap for this study is depicted in Figure 3.1 below. The paradigm, approach, design, sampling, data collection methods, quality criteria, and data analysis methods are all discussed in this chapter.

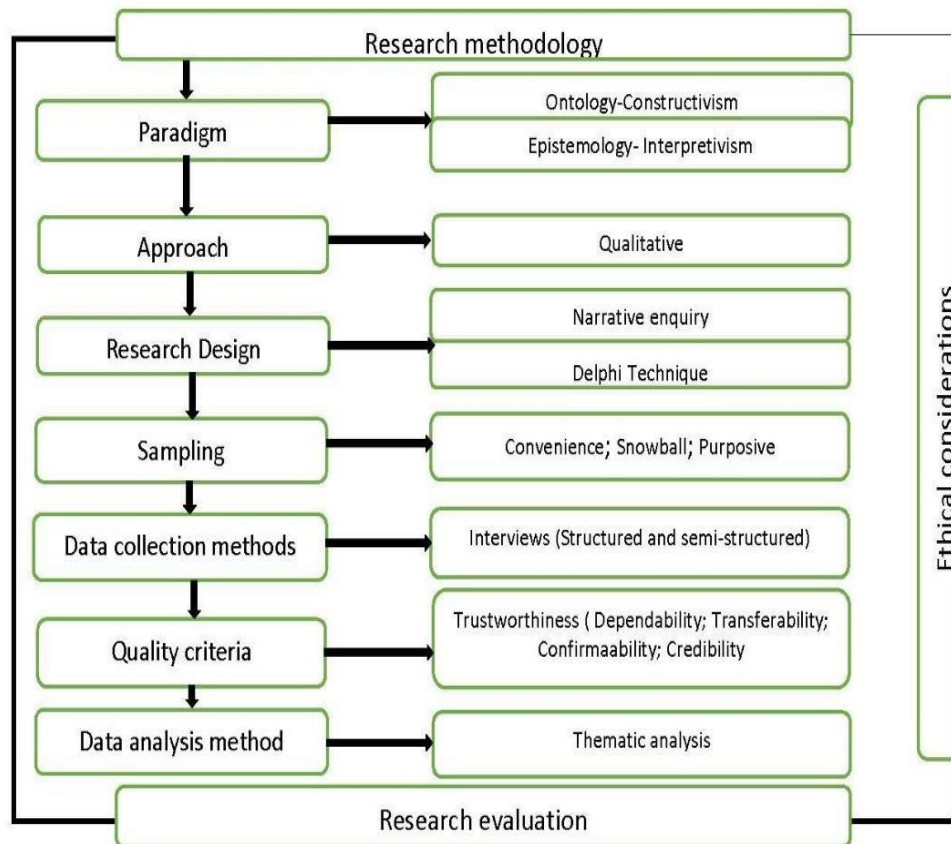


Figure 3.1: Research methodology roadmap for the current study (Synthesised by the researcher)

3.2 PHILOSOPHICAL PARADIGM

According to Denzin and Lincoln (2000), when conducting a scientific investigation, the investigator is guided by the philosophical assumptions, goals, and purposes of a mode of investigation known as research paradigms. According to Bertram and Christiansen (2014:22), a research paradigm "represents a worldview that defines what is acceptable to research and how this should be done for the researchers who hold this view."

A paradigm, according to Maree (2016), is a collection of assumptions or beliefs about fundamental aspects of reality that give rise to a specific worldview; it addresses fundamental assumptions made in faith, such as beliefs about the nature of reality (ontology), the relationship between knower and known (epistemology), and assumptions about methodologies.

According to Mertens (2009), a paradigm in the context of research includes ontology, epistemology, axiology, and methodology. Objectivism and constructionism are two distinct ontological positions that frame paradigms (Bryman 2012). A paradigm, according to Neuman (2011), is a set of beliefs that guides a researcher when conducting a scientific study. According to Plowright (2011:177), a research paradigm is "critically important because it determines, maintains, and reinforces the researcher's way of thinking about an issue or a topic and is an essential road map of the researcher's actions."

Similarly, Creswell (2014) and Mertens (2012) define a paradigm as a set of fundamental beliefs that define and represent an individual's worldview, as well as his place in and relationships to the world or its components. The researcher's philosophical assumptions about the research, as well as the tools, instruments, participants, and methods used in the study, are guided by research paradigms (Denzin & Lincoln 2000). The term "research paradigm" refers to patterns of beliefs and practises that govern inquiry within a discipline by providing the lenses, frames, and processes by which investigation is carried out (McGregor 2018).

According to Bhattacharjee (2012:17), recognising paradigms is critical to making sense of and reconciling differences in people's perceptions of the same social occurrence. According to Ngulube (2015:127), "ontology and epistemology form the paradigmatic foundation of research in a subject field." According to him, ontology refers to philosophical assumptions about the nature of knowledge, or the nature and existence of social reality, whereas epistemology refers to "what constitutes that knowledge and ways of knowing." Ngulube goes on to say that these two ideas form the foundation of all known social science research. These paradigms are discussed further below.

The research paradigm, according to Collis and Hussey (2009:55), is a "philosophical approach that guides a researcher on how to conduct a scientific research based on the assumptions and beliefs that people ascribe to the world and the nature of knowledge."

According to Bertram and Christiansen (2014:22), working within a specific paradigm influences decisions such as the following:

- What kinds of questions are supposed to be asked?
- What can be observed and investigated?
- How would data be collected?
- How would the findings be interpreted?

According to Creswell (2014:6-11), "the positivist (also known as post-positivism), constructivism or social constructivism (often combined with interpretivism), transformative, and pragmatism are the four paradigms that are widely investigated by researchers." The following research paradigms are discussed in detail:

3.2.1 Constructivism paradigm

According to Creswell (2018:8), constructivism or social constructivism, which is frequently combined with interpretivism, is such a perspective, and it is commonly regarded as a method for conducting qualitative research. The author goes on to say that social constructivists believe that people want to understand the world in which they live or work. Individuals develop subjective meanings of their experiences directed towards specific objects or things in this case. The study's goal is to rely as much as possible on the participants' perspectives on the situation under investigation (Creswell 2018:8).

In discussing constructivism, Crotty (1998) identified several assumptions. The following assumptions are discussed:

- Human beings construct meanings as they engage with the world they are interpreting.
- Qualitative researchers tend to use open-ended questions so that the participants can share their views.
- Humans engage with their world and make sense of it based on their historical and social perspectives – we are all born into a world of meaning bestowed upon us by our culture.
- Basic generation of meaning is always social, arising in and out of interaction with a human community. The process of qualitative research is largely inductive; the enquirer generates meaning from the data collected in the field.

As a result, constructivism is the ontology of this study. The methodology for this study was guided by this paradigm. The choice of this paradigm was motivated by the observation that “qualitative researchers seek to understand the context or setting of the participants by physically visiting the context and gathering information” (Creswell 2018). According to Neuman (2014:4), the researcher was able to "arrive at an understanding of how people create and maintain their social worlds." Through community engagement, the researcher unpacked different perspectives of Taaiboschgroet community members and gained an understanding of their situation. The researcher also observed the situation at Taaiboschgroet and discovered how the village obtains information. This qualified this study to be purely qualitative, with interviews and observations utilised as data collection tools. The researcher could engage with the participants further through interviews.

3.2.2 Interpretivism paradigm

This study is interpretivist in nature from an epistemological standpoint. Interpretivists seek to comprehend the meanings that people attach to phenomena in social contexts. This is also stated by Henning, Van Rensburg, and Smith (2004), who state that the interpretivists are concerned with the meanings attached to phenomena. According to Bertram and Christiansen (2014:26), the interpretive paradigm allows researchers to describe and understand how people make sense of their worlds and make meaning of their actions rather than predict what people will do. The authors go on to say that the goal of interpretivists is to gain a better understanding of how people make sense of the environments in which they live and work. According to Romm and Ngulube (2015), “the interpretive paradigm is associated with the qualitative research method”. This paradigm provided the researcher with the opportunity to gain a comprehensive understanding of information provision and access in rural settings.

3.2.3 Positivism paradigm

According to Bertram and Christiansen (2014:22), both positivism and post-positivism use the scientific method in both the social and natural sciences. Positivism, according to Bhattacharjee (2012:18), is "the idea that science or knowledge creation should be limited to what can be observed and measured." He admits that positivism is prone to relying solely on theories that can be directly tested. Ngulube (2015:127) “demonstrates that positivism's ontology is realism. This means that social reality can be observed and studied objectively and scientifically, regardless of who is doing the observing”. Positivism's epistemology is objectivism and dualism (Lincoln & Guba 1994:110). According to Gray (2014:21), the positivist paradigm is used in the quantitative research approach.

According to Ngulube (2015:127), positivism's "methodology is quantitative, which means that the researcher who is using a positivist approach in quantitative research has influence over the evidence." Positivism, according to Aliyu, Bello, Kasim and Martin (2014), is founded on the ontological principle that truth and reality are independent of the researcher.

Positivists, according to Creswell (2014), believe that causes determine effects or outcomes. They believe that laws and theories govern the world, and that these must be tested, verified, and refined in order for the world to be understood. According to Jakobsen (2013), positivism is a philosophical position that emphasises empirical data and scientific methods in general. It implies that certain "positive" knowledge is based on natural phenomena, their properties, and relationships, and it emphasises the importance of acquiring knowledge through scientific methods of inquiry.

The traditional form of research is represented by post-positivist assumptions, and these assumptions hold true for more quantitative research than qualitative research (Creswell 2018:6). According to the author, this worldview is also known as the scientific method or conducting scientific research. According to Vosloo (2014), positivism can be defined as a social research approach that seeks to use the natural science model of research as a starting point in investigations of social phenomena and explanations of the social world.

Post-positivists believe in determinism, which holds that causes (probably) determine effects or outcomes. Thus, the problems studied by post-positivists reflect the need to identify and evaluate the cause of outcomes, such as those discovered in experiments (Creswell 2018:6). According to Creswell (2014), the post-positivism paradigm employs tools such as surveys, interviews, and observation. Researchers who follow the positivist paradigm believe that there is an external reality and that there are patterns and a sense of order in the world that can be discovered (Bertram & Christiansen 2014:23). A post-positivist researcher's goals, like those of positivist researchers, are to describe, control, and predict how the natural and social world works (Bertram & Christiansen 2014:23). Positivism is based on the assumption that reality is objective and knowable. Ontologically, positivism embraces naive realism (Denzin 2009) because it regards reality as something that exists and can be objectively discovered. Positivism, which takes an etic approach to research, requires the researcher to be an objective observer who manipulates variables without any personal involvement, leaving no room for personal insight outside of observable variables (Henning et al. 2004). This paradigm was not appropriate for this study.

3.2.4 Transformative paradigm

According to Mertens (2010), a transformative worldview holds that in order to confront social oppression at any level, research must be intertwined with politics and a political change agenda. This philosophical worldview focuses on the needs of marginalised or disenfranchised groups and individuals in our society. Transformative research gives these participants a voice, raising their awareness or advancing an agenda for an opportunity to improve their lives (Creswell & Creswell 2018:8).

The following are key characteristics of Mertens' transformative worldview or paradigm (2010):

- “It places central importance on the study of the lives and experiences of diverse groups that have traditionally been marginalise.
- In studying these diverse groups, the research focuses on inequities based on gender, race, ethnicity, disability, sexual orientation, and socio-economic class that result in asymmetric power relationships.
- Transformative research uses a programme theory of beliefs about how programmes work and why the problems of oppression, domination, and power relationships exist”.

3.2.5 Pragmatism paradigm

The work of Peirce, James, Mead and Dewey inspired Pragmatism (Cherryholmes 1992). According to Creswell (2018:10), there are various forms of this philosophy, but for many, pragmatism as a worldview emerges from actions, situations, and consequences rather than antecedent conditions (as in post-positivism). According to Creswell (2014), pragmatism is about multiple methods, different worldviews, and different types of data collection and analysis (Creswell 2014). According to Mertens (2012), pragmatism does not focus on any specific philosophical underpinnings, but rather on the purpose and research question to determine methods to be used for that specific purpose. According to Shannon-Baker (2016), pragmatism bridges the gap between positivism and interpretivism by looking for what is

meaningful from both perspectives. According to Creswell (2018:10-11), Morgan (2007), and Cherryholmes (1992), pragmatism provides a philosophical foundation for research:

- Pragmatism is not committed to any one system of philosophy or reality. This is true for mixed-methods research as well, since researchers often use both quantitative and qualitative assumptions in their work.
- Individual researchers have freedom of choice. In this way, researchers are free to choose the methods, techniques, and procedures, or research that best meet their needs and purpose.
- Pragmatists do not use the world as an absolute unit. In a similar way, mixed methods researchers look at many approaches for collecting and analysing data rather than subscribing to only one (e.g., quantitative or qualitative).
- What works at the time is truth. It is not based on a duality between reality independent of the mind and reality within the mind. So, in mixed methods research, researchers use both quantitative and qualitative data to help them understand a research problem as well as possible.
- Pragmatic researchers look at *what* and *how* to do their research based on the intended consequences—where they want to go with it. Researchers who use both quantitative and qualitative methods need to come up with a reason why they need to be combined in the first place.

According to Feilzer (2010:8), “the pragmatist worldview bridges the positivist-interpretivist or quantitative-qualitative divide by recognising that there are singular and multiple realities that are open to empirical inquiry and that orient themselves towards solving practical problems in the real world.” This paradigm was also inapplicable to this research. The following section discusses the research approach.

3.3 RESEARCH APPROACH

Research approaches are "plans and procedures for research that outline the steps from broad assumptions to detailed methods of data collection, analysis, and interpretation" (Creswell 2014:3). Creswell (2014:3) points out that "the research approach directs the study and guides the researcher to come up with an appropriate research design, data collection methods, data analysis, and presentation thereof to apply to the area under study." There are three major approaches to research, namely the qualitative, quantitative, and mixed methods approaches (Creswell 2014). Even though there are three approaches to research, Polit and Beck (2014:8) opine that there are two frequently used research approaches: qualitative and quantitative.

3.3.1 Qualitative research approach

According to Leedy and Ormrod (2013:95), the "qualitative research approach aims to discover and develop a deeper understanding of how certain things occur and why." A qualitative approach is often used when the problem has not been investigated before (Bless et al. 2013:16). Qualitative research is an umbrella phrase that describes many research methodologies, such as ethnography, grounded theory, narrative enquiry, and interpretive description, which draw on data collection techniques such as interviews and observations (Leedy 1997:156). Rahman (2017:103) defines the qualitative research approach as "a process in which the results of research findings are not obtained through quantifiable measurements such as counting". Creswell (2014:4) defines the qualitative approach as "an approach for exploring and understanding the meaning individuals or groups ascribe to a social or human problem." Stebbins (2008) observes that, at times, qualitative researchers think deductively, informed by emerging rather than a priori theories and frameworks, characteristics of quantitative research.

Additionally, qualitative research is inductive in nature; the researcher wants to gather data to build concepts, hypotheses, or theories from bits and pieces of information obtained from interviews and documents (Merriam 2009). The qualitative research approach "attempts to understand realism in everyday life or phenomena" (Polit & Beck 2014:9). The data collection

instruments used with the qualitative research approach are focus groups, participant observation, photos, journal entries, and unstructured interviews (Trochim 2008). Qualitative research questions strive to find answers using a rich descriptive method (Crookes & Davies 2004:77). “The qualitative research approach is not as rigid as the quantitative research approach and is more flexible in giving scope to adjust data to suit the study” (Polit & Beck 2014:266).

Furthermore, the researcher has the option of merging various data collection strategies (Polit & Beck 2014:266). However, using the qualitative research approach comes with “a few disadvantages, such as the use of smaller sample sizes, which means that it is not possible to generalise the sample population findings to the general population” (Atieno 2009:17). Bryman (2012) avers that qualitative research is constructivist or interpretivist in nature and contends that there are multiple realities. With qualitative research, there are various sources of enquiry, such as interviews, focus groups, observation, documents, images, and artefacts that generate data that provides understanding and meaning of reality from the perspective of the participants. On the other hand, the researcher becomes directly involved in data collection and data interpretation. This means that the researcher is just as important as the participants. Denzin and Lincoln (2011) posit that qualitative research requires the researcher to turn into an exploration instrument.

This study used a qualitative research method. Creswell (2014:185) defines qualitative research as having the following characteristics:

- “Natural setting: Qualitative researchers tend to collect data in the field at the site where participants experience the issue or problem. Hence, this study targeted the villagers who are affected by the lack of access to information.
- Researcher as key instrument: Qualitative researchers collect data themselves through examining documents, observing behaviour, or interviewing participants. The researcher interviewed the Taaiboschgroet residents and observed the situation in the village in terms of information access.
- Multiple sources of data: Qualitative researchers typically gather multiple forms of

data, such as interviews, observations, documents, and audio-visual information, rather than relying on a single data source.

- Inductive and deductive data analysis: Qualitative researchers build their patterns, categories, and themes from the bottom up by organising the data into increasingly more abstract units of information.
- Participants' meanings: In the entire qualitative research process, the researcher keeps a focus on learning the meaning that the participants hold about the problem or issue, not the meaning that the researcher brings to the research.
- Emergent design: The initial plan for research cannot be tightly prescribed, and some phases of the process may change or shift after the researcher enters the field and begins to collect data.
- Reflexivity: In qualitative research, the enquirer reflects on how their role in the study and their personal background, culture, and experiences hold potential for shaping their interpretations, such as the themes they advance and the meaning they ascribe to the data.
- Qualitative researchers try to develop a complex picture of the problem or issue under study”.

This study adopted a qualitative research approach in order to come up with a framework for bridging the information services chasm in rural areas without public library facilities. The worldviews discussed in section 3.2 also warrant the study's adopting the qualitative research approach.

Creswell and Creswell (2017) state that qualitative research is about engaging participants in a natural setting. In this study, the researcher chose the qualitative research approach as it encompasses an in-depth understanding and interpretation of meaning from the data collected. As Denzin and Lincoln (2011) would attest, qualitative research requires the researcher to turn into an exploration instrument. A qualitative research inquiry warrants an ideological disposition. With a qualitative study, a researcher is able to depict the experiences of participants while the readers are able to understand the meanings attached to those experiences as well as the nature of the issue and its impact.

The choice of the qualitative research approach for this study was informed and motivated by the study's target population. Additionally, the qualitative strand was followed to gain an in-depth understanding of the experiences of the villagers and experts in the community on the provision of information services in rural settings. Interviews and participant observation were used as pure qualitative research tools for data collection. The residents' tacit knowledge was checked in an attempt to gain a deeper understanding of how the residents access information services in their village.

3.3.2 Quantitative research approach

According to Bless et al. (2013:16), "the quantitative approach relies extensively on numbers and statistics in the analysis and interpretation of findings that are generalised from the sample to the wider population under study." Quantitative research is a process that is systematic and objective in its ways of using numerical data from only a selected subgroup of a universe (or population) and generalising the findings to the universe that is being studied (Maree 2016). Similarly, Gelo, Pritz, and Rieken (2016) define the quantitative approach as any approach that exclusively uses statistical data analysis to answer the study's research questions, regardless of whether qualitative procedures of text analysis may have been used to collect data. Creswell (2013) opines that quantitative research is a means for testing objective theories by examining the relationships among variables that can be measured by using instruments so that numbers can be generated and analysed using statistical procedures. Additionally, Leedy and Ormrod (2014) view quantitative research as the type of research that tries to make sense of the world through numbers.

Quantitative research has incorporated the practices and norms of the natural scientific model and of positivism in particular and embodies a view of social reality as an external, objective reality (Bryman 2012). Harwell (2011:5) affirms that "the data for the quantitative research approach is mostly used for empirical testing." Quantitative data collection methods include experiments, clinical trials and computer simulations, observing, counting and recording well-defined events, obtaining data from information management systems and administering surveys with closed- ended and/or open-ended questions (McGregor 2018). The quantitative research approach allows a researcher to collect data from large sample populations, and this

makes it easy to generalise findings to a larger number (Creswell & Plano-Clark 2011:12). According to Stangor (2015:15), quantitative research requires that the researcher measure the beliefs, attitudes, intentions, and behaviour intensively in order to allow for statistical analysis.

The approach is primarily concerned with the measurement of issues and, therefore, collects numeric data, metrics, and others to measure concepts and how variables relate in order to derive meaning. This approach gives the researcher little room for flexibility because of the prescribed procedures that he or she has to follow. The variables being investigated are measured through the analysis of numerical data using statistical procedures.

3.3.3 Mixed method research approach

Harrison and Reilly (2011:8) regard mixed methods research as a comprehensive technique for research in the social sciences since it integrates thematic and statistical data. The mixed methods research approach integrates the quantitative research process that includes collecting data through surveys or experiments and the qualitative research process that includes collecting data through interviews, focus groups, and observations (Harwell 2011:3; Creswell 2009:99; Fidel 2008:265). Mixed methods research (MMR) combines qualitative and quantitative approaches (Creswell 2006). MMR shares the fundamental aspects of both qualitative and quantitative research approaches. There is confusion about whether the MMR uses both the qualitative and quantitative approaches. However, the researcher believes that when using MMR, both the qualitative and quantitative approaches should be used equally. Most researchers prefer triangulation, where one does not have to treat both the qualitative and quantitative approaches equally but one becomes dominant.

Creswell, Klassen, Plano-Clark and Smith (2011:4) describe mixed methods research as “a methodology:

- where the focus is on understanding and answering the research
- that employs quantitative and qualitative data collection methods
- that mixes observation and interviews by following up with a questionnaire
- in which a mix of data collection methods is used that draws upon and complements the positive features of both techniques
- in which a combination of both methodologies creates a philosophical and

theoretical framework of the study”.

3.4 RESEARCH METHOD

According to Creswell (2014), researchers study things in their natural settings to make sense of or interpret phenomena in terms of the meanings people give to them. Walliman (2011:9) indicates that there are various research designs. The choice of a research design is dependent on the nature of the research problem. Accordingly, “research designs include case studies, experimental studies, surveys, and action research, as well as narrative enquiry” (Bernard 2013:216).

Kumar (2008:30) indicates that a "research design is a written plan for a study". This plan shows how the researcher intends to design the study. Babbie and Mouton (2014) consider research design as a plan or blueprint of how one intends to conduct the research. Salkind (2010:2) argues that "the research design takes on a prominent place in research methodology as it is not only concerned with the research design, but it also includes data collection, sampling, and data analysis."

Trumbull, Bonney, Bascom and Cabral (2000:80) argue that the research design encompasses the plans to resolve research issues. "It communicates the intentions of the researcher, the purpose of the study, and its importance, together with a step-by-step plan for conducting the study" (Kumar 2008:30).

According to Bertram and Christiansen (2014:40), the research design should answer the following questions:

- What evidence or data must the researcher collect in order to answer the question?
- How will the researcher collect data (or what data collection methods will be used)?
- What will the researcher do with the data once they have been collected?
- How will the researcher analyse the data and make meaning from it?

The researcher interviewed the Taaiboschgroet villagers (including the chief and shop

owners) using a narrative enquiry method and the experts in library and information science within the Blouberg Municipality using the Delphi technique. For the narrative inquiry method, the researcher used unstructured interviews and participant observation. Semi-structured interviews were used with the Delphi technique. The use of both the narrative enquiry and the Delphi technique (known as triangulation of methods) assisted in gaining an in-depth understanding of the problem under study and developing a framework for bridging the information services chasm in rural settings.

3.4.1 Narrative enquiry

Narrative enquiry was used for the Taaiboschgroet community members. With narrative enquiry, the researcher allows the participants to narrate their experiences. Narrative research does not only gather stories of human experiences (Josselson 2006), it also attempts to understand how stories are assembled, who constructs the stories, and what components they are made of. Riessman and Speedy (2007) aver that narrative enquiry checks the purpose of stories as well as what they address.

Additionally, Clandinin (2006) notes that, besides storytelling, narrative inquiry enables us to understand how people reinterpret their being in the world through temporal and conceptual social interaction. Riessman (2008), Mernard-Warwick (2011), and Josselson (2011:239) outline the following qualities of a narrative enquiry:

- In narratives, people construct not only who they are, but also how they want to be identified.
- People assign identities to those who appear in their narratives and to the speakers.

- The narrative study generalises the findings and explore the gradations and interrelationships among aspects of experience that the reader might apply to better understand other related situations.
- Narrative enquiry is more concerned with encounters, processes and a deeper understanding of the object under investigation than with generalisability.

Narrative inquiry makes use of stories to better understand social patterns. At the heart of narrative inquiry are stories of participants and stories created by researchers based on information gathered from participants. Narrative inquiry is another term for life history and biography research. According to Lieblich, Tuval-Mashiach and Zilber (1998), narrative inquiry has been used in many disciplines to learn more about the culture, historical experiences, identity and lifestyle of the narrator. The narrative approach involves inquiry directed at narratives of human experience or inquiry that produces data in narrative form.

Hoshmand (2005) avers that examples of inquiries that yield narrative data include interviews that solicit stories or oral histories, or written autobiographies and biographies. Hoshmand (2005) indicates that the defining features of the narrative approach include the collection of narratives (stories) from individuals or small groups. Most often, there is collaboration with the researcher as storytelling engages the audience. These stories tell of individual experiences, which often expose the researcher to the identities of those they describe. Narratives are often collected through interviews, but other qualitative forms of data collection, such as observations and documents, may be used. For this study, interviews were used as a data collection method.

Data collection techniques include interviewing and observing the participants, thus bringing the researcher and participants together. The researcher takes an interactive role whereby he or she gets to know the participants and the social context in which they live (Schneider & Somers, 2006). Denzin and Lincoln (2011) explain that interviewing as a technique for information assortment helps the researcher to gain a more profound understanding of the participants' constructions through dialogue and through the language they use in building the various talks. The way that the researcher inquires influences what he or she intends to discover. Hence, the data collection process is selective.

According to Chou, Tu and Huang (2013), in an interview, the interviewee is the storyteller, and the questioner is a guide in this procedure. The two are partners, forming and developing or constructing a story. The participants hold the power of knowledge since they are the only

specialists in their lived experiences. During the interview, the interviewer offers conscious and intriguing consideration rather than his perspectives.

3.4.2 Delphi technique

The researcher employed the Delphi technique model for collecting data from the LIS experts in the Limpopo province. The Delphi technique belongs to a set of qualitative research methods that rely on the judgement of individuals presumed to be experts in the subject under consideration (Ritchie, Burns & Palmer 2005: 85). This method has been used by several scholars who have come up with similar definitions. The original advocates of the Delphi technique (Dalkey & Helmer 1963) assert that the Delphi technique is a method used to obtain the most reliable consensus from a group of experts through a series of intensive questionnaires interspersed with controlled feedback.

For Reid (1998), the Delphi technique is a method for the systematic collection and aggregation of informed judgements from a group of experts on specific questions and issues. The Delphi technique is a widely used and accepted method for gathering data from respondents within their domain of expertise (Hsu & Sandford 2007). These authors suggest that the technique is also preferred based on its ability to dig beneath the surface of issues through the expertise in the field under consideration.

The Delphi technique was used to collect data from the experts in library and information science around the Blouberg Municipality. The experts were identified through their contributions to public librarianship. Three rounds of interviews were conducted, and the researcher stopped interviewing experts when consensus was reached. Interviews were independent of each other. The following section discusses the data collection tools using the Delphi technique, the process thereof, the justification of using the Delphi technique, and, finally, how the researcher selected the participants.

3.5 STUDY POPULATION AND SAMPLING

A target population refers to a set of objects, whether animate or inanimate, that are the focus of the research study and about which the researcher wants to determine some characteristics (Ngoepe 2012:100). Wiid and Diggins (2013:183) define a population as the total group of people or entities (social artefacts) from which information is required.

Polit and Beck (2014:177) explain that “it is not always feasible to include an entire population in a study, as this could mean that the researcher would have to spend more funds and time on data collection and analysis when the entire population is included in the study”. The target population for this study was the full-time residents of the Taaiboschgroet village. However, there was no sampling frame to indicate the total number. The researcher collected data until saturation was reached. The researcher interviewed the chief, purposively as the leader in the community. Other participants were conveniently interviewed as the researcher did door-to-door visits. All the interviewed participants were asked if they lived in the village full time. All of the approached participants lived in the village full time. For the Delphi Technique, the researcher targeted the experts in LIS in the Blouberg Municipality.

In order to estimate the prevalence of information of interest to a researcher, sampling needs to be done from the study population (Kumar 2011). Bless et al. (2013:163) believe that sampling means abandoning certainty in favour of probability. Sampling determines, among other things, whether the researcher meets the objectives of the study (Uprichard 2013:1). Hernon and Schwartz (2009:23) define a sample as a portion of the population under study. There are two main methods of sampling: probability and non-probability sampling (Teddlie & Yu 2007:85). Kothari (2004) also indicates that sampling can be categorised into probability sampling and non-probability sampling. According to Bless et al. (2013:166), probability sampling is when the probability of including each element of the population can be determined. Similarly, Connaway and Powell (2010:199) opine that probability sampling enhances the likelihood of accomplishing the objective of selecting elements that accurately represent the total population from which the elements were drawn. In probability sampling, every member of the population has an equal chance of selection, which is not the case with non-probability sampling (Doherty 1994:23).

Stratified random sampling and cluster sampling are examples of probability sampling. It is therefore possible to estimate the extent to which the findings based on the sample are likely to differ from what would have been found by studying the whole population. Non-probability sampling is when the probability of including each element of the population is unknown.

This study employed non-probability sampling. Singleton and Straits (2010) indicate that “quota sampling, accidental sampling, judgemental sampling, expert sampling, and snowball sampling are examples of nonprobability sampling”. For this study, the researcher used the following types of sampling suggested by Luborsky and Rubinstein (1995) to be used in qualitative research:

- **Convenience sampling:** When the researcher needed to collect data from the residents of Taaiboschgroet village, he used this technique. The researcher interviewed village residents who were available at the time of data collection. However, before beginning the interviews, the researcher asked the participants if they were full-time residents of the village. The researcher was looking for information from full-time residents because they are the ones who are affected on a daily basis. Fortunately, all of the people approached were Taaiboschgroet village residents.
- **Snowball sampling:** The researcher used snowball sampling to identify LIS experts with knowledge of rural libraries, particularly in the Limpopo province. In the Delphi technique, the researcher asked the first expert approached to identify other experts for participation in this study. Snowball sampling is a sampling technique in which the investigator selects the first group of respondents using any other sampling techniques and then asks them to recommend other people who meet the research criteria and might be willing to participate. The researcher interviewed three LIS experts who were available to her. The Delphi technique allows the researcher to collect data from as few as three to as many as six participants. Data for this study were gathered from three experts. Consensus was reached on three rounds of questions.

Purposive sampling: This method was used to select a panel of experts in the Blouberg Municipality. The experts were purposively selected in order to participate in the Delphi technique and to provide their knowledge as far as information service provision in rural settings is concerned. This sampling procedure was chosen on the basis that experts have knowledge of library and information science in the Limpopo province.

3.6 DATA COLLECTION TOOLS

Interviews were conducted for both the narrative inquiry and the Delphi Technique. This section provides the data collection tools for this study in detail.

3.6.1 Narrative enquiry

This process of narrative inquiry is about conducting open-ended interviews. Denzin and Lincoln (2011) contend that unstructured interviews permit the researcher to comprehend the multifaceted nature of the circumstance without forcing any earlier order. Scârneeci-Domnişoru (2013) mentions that this is one of the many data collection techniques that can be used in qualitative research, which yields rich, complex data and leaves the subjects in control of the interview. The narrative dialogue exploits the participants' expertise to express themselves verbally. Narrative data has become indispensable in comprehending past encounters and occasions.

The participants' point-by-point and striking depictions cannot be obtained as proficiently with other research strategies and procedures. It is equally correct to say 'narrative inquiry' as it is 'inquiry into narrative.' This is to say that narrative is both a phenomenon and a method. The structured quality of experience to be investigated, as well as the pattern of inquiry, are identified by narrative. To maintain this distinction, Connelly and Clandinin (1990:2) aver that the fairly well-established device of "story" and the inquiry "narrative" should be employed. As a result, we can say that people, by nature, lead storied lives and tell stories about them, whereas narrative researchers describe such lives, collect and tell stories about them, and write narratives of experience. The sections that follow present a case for selecting specific approaches and techniques.

3.6.1.1 Interviews

Interviews were used for narrative enquiry. Denzin and Lincoln (2011) note that utilising interviews as a technique for information assortment helps the researcher to gain a more profound understanding of the participants' constructions through dialogue and through the language they use in building the various talks. With narrative enquiry, the researcher can conduct interviews with at least 10 individuals as a data collection technique (Creswell 2007).

In this case, the researcher asked the participants questions that helped narrate the common meaning for several individuals of their experiences of a phenomenon. The description consisted of "what" they experienced and "how" they experienced it.

Matthews and Ross (2010:476) define an "interview" as a data collection method that enables the interviewer to elicit information, feelings, and opinions from the interviewee using questions and interactive dialogue. Saunders, Lewis and Thornhill (2012:372) define interviews as "a purposeful conversation between two or more people requiring the interviewer to establish rapport, to ask concise and unambiguous questions to which the interviewee is willing to respond, and to listen attentively." An interview was the appropriate data collection instrument for collecting qualitative data because it helped the researcher to stimulate opinions of the Taaiboschgroet residents. The researcher conducted face-to-face interviews. In a structured interview, the researcher asks a set of questions that were planned ahead of time and are asked in the same order and with the same wording as the interview schedule (Kumar 2011:145).

Bryman (2012:469) opines that "there are two main types of interviews in qualitative research, which are the unstructured interview and the semi-structured interview". However, Fox (2009:5) and Knox and Burkard (2009:3) believe that there are three types of interviews, which are structured (or standardised) interviews, semi-structured interviews, and in-depth interviews. Alshengeeti (2014:40) observes that a **structured interview** is mostly organised around a set of predetermined direct questions that require immediate responses; mostly yes or no type questions.

With **unstructured interviews**, both the interviewer (researcher) and the interviewee have

freedom in terms of planning, implementing, and organising the interview content and questions (Gubrium & Holstein 2002:35).

Sarantakos (2013) indicates that during **semi-structured interviews**, the investigator has a list of questions addressing the topics to be covered, which will be used with all interviewees. However, it serves mostly as a guideline, because the investigator may choose to ignore some questions or even add other questions during the interview if needed.

For this study, semi-structured interviews were used. This allowed the researcher to ask follow-up questions where necessary during interviews. This also helped in answering the objectives of this study. In some instances, the interview questions were randomly asked as other respondents would narrate their answers to the extent to which they would answer other questions that were to be asked.

Kumar (2011:149-150) outlines the following advantages of conducting interviews:

- An interview is more appropriate for complex situations: the interviewer has the opportunity to prepare a respondent before asking sensitive questions and to explain complex questions to respondents in person.
- It is useful for collecting in-depth information: in an interview situation, it is possible for an investigator to obtain in-depth information by probing.
- Information can be supplemented: an interviewer is able to supplement information obtained from responses with those gained from observation of non-verbal reactions.
- Questions can be explained: the interviewer can either repeat a question or rephrase it so that is understood by the respondent if need be.
- Interviewing has a wider application: an interview can be used with almost any type of population such as children, the handicapped, the illiterate or the elderly.

Adhabi and Anozie (2017:92) outline the following disadvantages of conducting interviews:

- “They are time consuming and therefore take more time to complete.
- Interviews are also costly, as the researcher has to pay for the costs of travel to and from places where the interviewees are located.
- Interviewer bias is a danger that needs to be addressed.
- The researcher may not be able to discern the physical or emotional state of a participant”.

3.6.2 Delphi technique

The researcher employed the Delphi technique and collected data from experts in LIS, who shared their expertise in relation to the provision of information services in rural settings. Due to COVID-19, the researcher designed an interview schedule with a set of questions and sent it to the experts through email. This technique was mainly used to seek expert knowledge in order to understand a phenomenon under study in greater depth. The researcher needed the experts’ opinions with the aim of achieving a convergence of opinions on the provisioning of information services in rural settings.

LIS experts were chosen on the basis that libraries provide different types of information that rural dwellers need in their day-to-day lives. Questionnaires were sent to a group of library and information science experts in the Blouberg Municipality. After the researcher gathered all the information, he correlated the different views on the topic under study.

The research sent three rounds of questionnaires to the experts in LIS. This was supported by Keeney, Hasson and McKenna (2011:4), who indicate that the Delphi process consists of two or more rounds of questionnaires administered by post to an expert panel. Additionally, Torrecilla-Salinas, Troyer, Escalona and Meijas (2019) reiterate that a three-iteration Delphi is sufficient for most analyses, as it is often sufficient to reach consensus. In the process, the researcher notified the participants that they could change or modify the results of earlier iterations regarding specific statements in later iterations based on their ability to review and assess the comments and feedback provided by the other Delphi participants.

Skulmoski, Hartman and Krahn (2007) propose the following process in the use of the Delphi

method, which the researcher followed in her study:

- **Developing the research question** – The development of the research question was motivated by the lack of library and information services in the rural settings of Limpopo, and this forced the researcher to try to find ways in which the information services gap can be bridged in rural settings. The researcher is from a deep rural area with limited access to library and information services. Through the review of literature, the researcher spotted gaps in the provision of information services in rural areas. Thus, research questions were formulated.
- **Designing the research** – Based on the formulated research questions, the researcher determined the method suitable to collect data for the study. For the purpose of this study, the researcher took a qualitative strand and used the Delphi technique method to collect data from the LIS experts in the Blouberg Municipality. The choice of a qualitative approach was informed by the need for the experts' interpretations, understanding, and experiences as far as information services provision is concerned in rural settings. The researcher informed the participants that there would be three rounds of questionnaires and that they were allowed to stop participating at any point in time, as the study was voluntary.
- **Research sample** – It is important to select participants when following the Delphi technique because experts in the field under study have to be selected as their participation determines the output of the study. Keeney et al. (2011) assert that simply because individuals have knowledge of a particular topic does not necessarily mean they are experts.

The researcher then considered the four requirements that must be met for a person to be an expert as proposed by Adler and Ziglio (1996). These requirements are as follows:

- Knowledge and experience in the issues under investigation
 - Capacity and willingness to participate
 - Sufficient time to participate in the Delphi research
 - Effective communication skills
-
- **Developing Delphi round one questions** – Round one of the Delphi technique starts with an open-ended set of questions, thus allowing the participants freedom in their responses

(Keeney et al. 2011). The inclusive approach afforded the participants an opportunity to provide more details on the issue under study. Round one was intended to obtain the personal opinions of the experts in connection with the information service provision in rural settings. The researcher used the following questions in round one:

- In your view, which sources of information are available in rural settings? How reliable and sufficient are they?
- With the shortage of library and information services in rural settings, what could be factors contributing to the shortage?
- **Delphi pilot study** – A pilot study was conducted to identify the areas that require improvement so that participants do not struggle when providing feedback. The experts discovered no areas for improvement.
- **Releasing and analysing round one questionnaire** – This was the point at which the researcher distributed polls to research participants, who completed them and returned the results to the researcher. The results of the first round were analysed and consolidated by the researcher using qualitative coding.
- **Developing round two questionnaire** – Round two was developed after the researcher completed the summarisation of the responses obtained in Round one. Based on the responses from Round one, more specific questions were developed.
- **Releasing and analysing round two questionnaires** – The researcher sent the round two questions to a panel of experts who had access to the round one responses. The researcher informed the experts that they could change their answers from round one. This was done to improve dependability. Adler and Ziglio (1996) agreed, emphasising the importance of continuous verification of answers in a Delphi technique. According to the authors, this helps to ensure the validity and reliability of the responses provided.
- **Developing round three questions** – The questions for round three were created using the responses from round two. The researcher devised new questions and presented the panel

with round two responses. As with round two, the experts were permitted to modify or expand their responses as they had access to the responses of other experts. The researcher concealed the identities of other experts when sharing the round two responses to ensure confidentiality in accordance with the Unisa research ethics principles.

- **Releasing and analysing round three questionnaires** – The expert responses were shared with the researcher after round three. Experts were allowed to review, modify, or expand on their previous responses even at this stage. This was done primarily to reach agreement. The researcher stopped developing new rounds at this point, and saturation was reached.
- **Verifying, generalising and documenting research results** – The researcher tested the Delphi results continuously throughout the process. It is at this stage that the researcher investigated the extent of consensus in the results.

3.7 QUALITY CRITERIA (TRUSTWORTHINESS)

The quality of qualitative studies can be assessed through their trustworthiness and authenticity. According to Pilot and Beck (2014), trustworthiness of data refers to the degree of confidence in data, interpretation, and methods used to ensure the quality of a study. Creswell (2014) put forward that the trustworthiness of qualitative research can be established by using four strategies: credibility, transferability, dependability, and conformability, which are constructed in parallel to the analogous quantitative criteria of internal and external validity, reliability, and neutrality. Bryman (2012:389) argues that "reliability and validity are most common for establishing and assessing the quality of quantitative research; however, this is done through measurements, which are not a preoccupation of qualitative studies like the current study".

The researcher used the following as quality criteria for this study:

3.7.1 Dependability

According to Creswell (2014), dependability is the extent to which the study could be repeated by other researchers with the findings remaining consistent. In other words, dependability is concerned with whether researchers would obtain the same results if the same thing could be observed twice. The traditional quantitative view of reliability is based on the assumption of replicability or repeatability (Creswell 2014). For Polit and Beck (2016:559), dependability is referred to as "the establishment of data over time and conditions are assured by collecting, recording, transcribing, and translating information as accurately as possible." To meet this criterion, the researcher took the direct quotations from the study's participants into account.

3.7.2 Transferability

Transferability refers to how the qualitative researcher demonstrates that the research findings are applicable to other contexts (Creswell 2014). In other words, it relates to the degree to which the results of qualitative research can be generalised or transferred to other contexts or settings. Other contexts can mean similar situations, similar populations, and similar phenomena (Creswell 2014). For Polit and Beck (2016:560), transferability is the "potential for extrapolation," which is the extent to which findings can be transferred to other groups. This study's results can be applicable to other rural settings with no access to public library facilities as well as total access to information in totality. At the end of this study, the researcher suggests topics for further research. These suggestions will help other researchers make judgements about the transferability of research findings.

3.7.3 Confirmability

The degree to which the findings can be confirmed or corroborated by others (Liamputtong 2013); the degree of neutrality in the research findings. This means that the findings are based on participants' responses and not on any potential bias or personal motivations of the researcher (Creswell 2014). One way of confirming the research findings is for the researcher to document the procedures for checking and rechecking the data throughout the study. The researcher took notes during interviews in order to ensure the confirmability of the data collected. This criterion was applied with the narrative enquiry.

3.7.4 Credibility

Credibility refers to how confident the qualitative researcher is in the truth of the research study's findings (Yin 2014). The credibility criteria, according to Creswell (2014), involve establishing whether the results of qualitative research are credible or believable from the perspective of the participants in the research. The author posits that because the purpose of qualitative research is to describe or understand the phenomena of interest from the participants' viewpoint, the participants are the only ones who can legitimately judge the credibility of the results.

3.8 DATA ANALYSIS AND PRESENTATIONS

According to Neuman (2011:507), "to analyse data means systematically to organise, integrate, and examine; as we do this, we search for patterns and relationships among the specific details". The qualitative data collected was thematically analysed. Anderson (1998:69–844) indicates that "a satisfactory thematic content analysis portrays the thematic content of interview transcripts (or other texts) by identifying common themes in the texts provided for analysis." The researcher analysed the data manually.

3.9 ETHICAL CONSIDERATIONS

The National Committee for Research Ethics (NCRE) in Norway (2006:5) defines research ethics as a concept that refers to a complex set of values, standards, and institutional schemes that help to constitute and regulate scientific activity. The importance of ethical consideration in research has been mentioned by several authors. Neuman (2011:380) argues that the primary ethical concern is the privacy and confidentiality of using information that someone else gathers. All stages of the research process, from proposal to publication, are influenced by ethical considerations. They are related to the research topics, questions, social contexts of the research, the researcher-researched relationship, and the researcher's own philosophies.

It is critical for the researcher to consider the potential impact of the research on the participants. According to O'Toole and Beckett (2010), in order to achieve reliable and valid

research outcomes, the role of power in the relationship between the researcher and the participants must be considered. The current study adhered to the highest ethical standards. Before providing informed consent, participants were given a brief information form that stated that their participation in the research was voluntary. Pseudonyms were assigned to them and their institutions to protect their privacy. They were treated with dignity and respect, and they had the option to withdraw from the study at any time.

Fouka and Mantzourou (2011:4) opine that “research ethics involves the requirements of daily work, the protection of the dignity of objects, and the publication of the information gained in the research”. May (2011:61) elucidates that ethics is concerned with the attempt to formulate codes and principles of moral behaviour, and Bless et al. (2013:28) indicate that the most basic principle of research is that participants must not be harmed by participating in the research project. Research ethics places emphasis on the humane and sensitive treatment of research participants, who may be at varying degrees of risk from research procedures. It is always the researcher’s responsibility to ensure that his or her research is conducted in an ethical manner. Ani (2013:132) indicates that a "good researcher should carry out his or her research project without harming the respondents and should gain the respondents’ confidence during every stage of the work."

In the current study, the researcher was guided by the Unisa ethics policy, which states that sources consulted must be acknowledged in order to avoid plagiarism. According to Unisa (2013:10), the confidentiality and privacy of participants should be appreciated. Unisa (2013:11) makes it clear that "participants should be seen as indispensable partners in research for the research to achieve its goal of being doable and able to contribute to the wealth of knowledge in a discipline". The Unisa research ethics policy outlines the ten general ethics principles that the researcher must follow:

- Essentiality and relevance
- Maximisation of public interest and social justice
- Competence, ability, and commitment to research
- Respect for and protection of participants’ rights
- Informed and non-coerced consent

- Respect for cultural differences
- Justice, fairness and objectivity
- Integrity, transparency and accountability
- Risk minimisation
- Non-exploitation

In order to abide by the Unisa ethical principles, the researcher informed the participants in detail about the purpose of the research to give them the opportunity to decide whether they wanted to participate in the study. The autonomy of participants was central to the study, and the expert members were informed of their right to decline to provide specific information or to terminate participation at any stage of the study without detriment.

In so doing, the researcher sought informed consent from all the participants, which they provided verbally before the interviews were conducted. The researcher ensured the anonymity of participants as per the Unisa ethical principles.

The researcher had to uphold the moral principles as far as research is concerned by respecting the participants' privacy and confidentiality. The researcher ensured that the research findings were published in a manner that could not pose any threat to the participants or harm them in any way. The researcher ensured that the participants felt free to participate in the study through informal communication.

This is supported by Barnett, Wise, Johnson-Greene and Bucky (2007), who posit that "the strength of qualitative research often lies in the informality of the communication as well as the interactive nature of the research process." In order to ensure anonymity, the researcher did not ask for the participants' names and applied for ethical clearance from the university ethics committee, which was granted. In order to avoid plagiarism, the researcher checked the final thesis on Turnitin.

3.10 EVALUATION OF RESEARCH METHODOLOGY

According to Ngulube (2005:139), research methods need to be evaluated in order to explain what information was required, how it was collected, and how it was analysed. Neuman (2011) also confirms that it is necessary to evaluate the procedures involved in collecting and analysing data to describe weaknesses in the study. In his view, Creswell (2014) affirms that “the value of evaluating the research methodology is not only to inform other researchers about the challenges encountered during the process of the study but also to contribute towards improving social research practice”. The researcher was guided by the COVID-19 protocols when collecting data. She made sure that the participants had their masks on and ensured social distancing when collecting data from the Taaiboschgroet residents. As far as the experts are concerned, the researcher did not have physical interaction with them. The questions were sent to them through email.

Some challenges were encountered during data collection. With narrative inquiry, the researcher had to keep explaining to the participants that she was not a politician canvassing for elections. The participants indicated that they did not want people to come to them, as they were always promised things that did not happen. Secondly, many community members refused to participate, and the researcher had to keep going back to the village until saturation was reached. With the Delphi technique, some participants took longer to respond due to their other commitments. Two experts the researcher was referred to were never available, and, eventually, the researcher had to give up. The researcher in terms of data collection did not restrict the researcher in terms of data collection as the experts participated through emails and social distancing was maintained with the Taaiboschgroet village residents.

3.11 SUMMARY

This chapter described the study's research methodology. The research paradigm, research approach, research design, study area, target population, sampling procedures and techniques, data collection instruments, trustworthiness, and ethical considerations were all covered. The qualitative method was employed, with interviews serving as the primary data collection tool. The narrative inquiry method and the Delphi technique were used. For the residents of Taaiboschgroet village and the chief, narrative inquiry was used. The Delphi technique was used to select experts from the Limpopo province's LIS fraternity. When collecting data, the researcher had no major issues. This study's methods were appropriate and yielded positive results. In summary, the chapter examined the steps taken to answer the question under consideration.

The following chapter is about data analysis and presentation.

CHAPTER FOUR

DATA PRESENTATION AND ANALYSIS

4.1 INTRODUCTION

The previous chapter concentrated on the study's research methodology. Since the qualitative approach was used in this study, the findings were narrative in nature. This chapter focuses on the presentation and analysis of this study's findings. This research project was made possible by both the research participants and the researcher. According to De Vos, Strydom, Fouche and Delpont (2011:249), "presentation and analysis of findings are important because it allows the researcher to reduce data to an intelligible and interpretable form so that the relationships of research problems can be studied and tested, and conclusions drawn." According to Barnett et al. (2007), the importance of having a systematic approach and rigorous analysis of interview data is highlighted by the researcher's systematic generation of good evidence from data collected. For data collection, two methods were used: narrative inquiry and the Delphi technique. Semi-structured interviews were used to collect data from Taaiboschgroet village residents using the narrative enquiry method. The Delphi technique was used to collect data from Limpopo Province LIS experts.

4.2 DATA ANALYSIS

Merriam (2009) defines qualitative data analysis as the process of making sense of the collected data. To do this, one immerses oneself in the data and consolidates the data by focusing on those segments that may provide insight (even a glimmer) into your research questions (Butina 2015). Then the researcher compares segments, looking for themes in the data, interprets what was said and makes meaning from the themes. These meanings or understandings become the findings of the study (Merriam 2009). Butina (2015) argues that initial analysis begins during the first interview or observation while the researcher identifies emerging insights. This can direct the researcher to probe further or refine the interview questions. Once data collection is complete, a more intensive analysis begins. According to Creswell (2007), the first appearance of data is

unimportant because the layers of meaning may be obscured; interpretation is required to decipher the multi-layered meanings of human experiences and to mediate between them.

Data analysis in narrative inquiry does not involve understanding "the content to which language refers," but rather attempts to interpret the "specific cultural milieu" (Riessman 2003:6). Further analysis of the participants' stories is required to cluster data under themes or patterns, allowing for idiosyncratic findings about the phenomenon to emerge.

Riessman's (2003) narrative analysis typology identifies four models of narrative analysis that can be used in combination:

- Thematic analysis (which emphasises what is said rather than how it is said); structural analysis (which emphasises the way the story is told)
- Interactional or dialogic analysis (which emphasises the dialogic process between the speaker and listener)
- Performative analysis (in which the storyteller sees the storytelling as a performance – doing rather than telling). The thematic approach is useful for finding common elements across the participants' experiences, using the participants' language as a resource but not a topic of investigation.

The data collected for this study were analysed thematically. The narration was done by both emphasising what the participants said and, in some instances, through the way the stories were told. To ensure confidentiality, the researcher labelled participants in the narrative enquiry as Participant A followed by a number, and participants in the Delphi Technique as Participant B followed by a number, for example:

- Narrative enquiry – Participant A1 to A18
- Delphi Technique – Participant B1 to B3

The presentation and analysis of data collected from both the narrative enquiry and the Delphi Technique started when the researcher repeatedly asked questions to the participants, made follow-up questions during the interviews, and read the responses on the interview schedules. The responses were repeatedly read in order to understand the context in which the participants found

themselves. After reading the responses, the researcher generated themes from the responses. This happened a lot with the Delphi Technique. Theme generation was aimed at conceptualising the responses as well as recording the in-depth information generated from data collection.

The researcher presented all the data collected from the participants and quoted participants verbatim in order to present the real data collected without adding anything to the narratives. This was in line with Baxter and Eyles (1997), who emphasised the importance of quoting participants verbatim instead of using the researcher's words. Interviews for the narrative enquiry were conducted mainly in Sepedi and then transcribed into English.

4.3 PARTICIPANT PROFILE

This section provides a brief overview of the participants' backgrounds while concealing their identities. The participants in the two groups ranged in age from 18 to 63. Based on their roles, participants were divided into groups of two. The first group (Group A) was for narrative enquiry, with Taaiboschgroet residents serving as the primary target population. Group B was for the Delph technique, with Limpopo LIS experts serving as key participants. Group A did not understand what information services were, but the researcher helped them understand by interviewing them in Sepedi; their responses were then transcribed in English. Participants in Group B understand the concept of information services because they are LIS experts.

4.3.1 Group A participants – narrative enquiry

Taaiboschgroet village residents who lived there full-time made up Group A. The main target population for this study was Group A participants, because the lack of information affected them in some way and they could articulate the situation they found themselves in on a daily basis.

Personal information was requested from participants. This was vital for the researcher in identifying the people in the Taaiboschgroet village. People's information requirements vary. The information required by a Grade R child may differ from that required by a Grade 12 learner. To avoid having children participate in the study, participants were asked to indicate their age, educational qualifications, employment status, and income to comply with the ethical considerations outlined by the Unisa research committee. The researcher also examined biodata at

the level of education, as this determines the type of information that one may require on a daily basis.

Participants were asked to indicate their educational qualifications and employment status in order to solicit the type of information that villagers require; their gross monthly incomes are shown in Table 4.1 below.

Table 4.1: Participants' age groups, educational qualifications, employment status and income

Participants	Age	Educational Qualification	Employment Status	Monthly Income
Participant A1	48	Dropped out of Grade 11	Unemployed	No income
Participant A2	38	Grade 12	Employed as a driver	R26 000 per month
Participant A3	25	Grade 12	Unemployed	No income
Participant A4	26	Grade 12	Administrator	R5 000
Participant A5	51	Grade 12	Finance clerk	R5000
Participant A6	27	Grade 12	Unemployed	No income
Participant A7	42	Grade 12	Business owner	Not sure
Participant A8	18	Grade 12	Unemployed	No income
Participant A9	63	No education	Pensioner	R1 860 from SASSA
Participant A10	26	Dropped out of Grade 11	Unemployed	No income
Participant A11	27	LLB degree	Child and youth care worker	Cannot disclose
Participant A12	35	Grade 12	CCTV camera operator	R7 500
Participant A13	42	Grade 12	Unemployed	No income
Participant A14	24	Grade 12	Unemployed	No income
Participant A15	67	No education	Pensioner	No income

Participant A16	24	Dropped out of Grade 9	Unemployed	No income
Participant A17	49	Grade 12	Unemployed	No income

The participants' level of education is concerning, as many had completed matric but did not continue their education. This could be due to a lack of tertiary education knowledge or information. Identifying the educational status of the participants was important because it helped the researcher identify educational gaps in the community. There were also dropouts in the community, such as Participant A17, who stated that he dropped out of school in grade 9 and never returned. A1 and A11 also stated that they had dropped out of school. A11 also dropped out of high school in grade 11.

It is worth noting that the government has made things easier for people living in rural poverty by allowing children to attend primary and secondary school for free. People had to pay school fees in the past, so Participants A9 and A16 were unable to attend school due to financial constraints. These participants were pensioners who had grown up under difficult conditions during the apartheid regime. These participants responded in Sepedi, which the researchers translated into English. Participant A9 stated:

“I could not go to school because my parents did not have the money to send me there.”

Participant A16 expressed similar sentiments, lamenting that,

“In the past, people paid school fees. I could not go to school because we could not afford the fees.”

Unemployment is also prevalent in the village, and as a result, some residents do not have any source of income. This could be because the village had no factories and the nearest town was 140 kilometres away, with the nearest shopping complex 80 kilometres away.

4.3.2 Group B participants – Delphi technique

This group was made up of experts from the Limpopo province's LIS fraternity. These experts are involved in public librarianship through publications and their day-to-day work. The experts learned about the lack of access to information in rural areas through research and publications. In terms of information access, all participants were familiar with the situation in Limpopo's rural areas. They each explained the consequences of the lack of public libraries in rural areas and proposed solutions to the information access gap in rural areas.

Participant B1 - In 2006, participant B1 established the Bakgoma Library in the Makobe village. He also helped to establish the Mahlabathini Community Library in Pudiakgopa Bakkenberg. From 2008 to 2011, this participant served on the Limpopo provincial library board. He was a poet who wrote and published over 50 books in Sepedi. Senior Primary Teachers Diploma, Bachelor's Degree of Technology in Education Management, Tourism Management Diploma, Human Resource Management Diploma, and Labour Relations Management Diploma were among his educational credentials. He was also the chairperson of Senwabarwana's Lekgotla la Bangwadi ba Dipuku and a director of Lekanka Publishers and Heritage. He worked as a teacher and on the board of the Limpopo Provincial Library and Information Services.

Participant B2 – was an academic at one of South Africa's universities and a teacher for 22 years. In 2008, he worked as a Senior Education Specialist: Library Services for the Gauteng Department of Basic Education. He also served two terms on the Limpopo Provincial Library and Information Services Board.

Participant B3 – From 1991 to 1994, he was a founding member of the Bolobedu Student Educational Project, which provided student support at the University of Limpopo, career guidance, and catch-up programmes for matriculates. In 1997-98, he was an observer at both exco and council meetings at Duivelkloof/Ga-kgapane (Greater Letaba) Local Municipality, and in 2001/02, he successfully planned and implemented the Papyrus Library computerisation project for Ba-Phalaborwa Municipality Library services. Between 1997 and 2004, he also took part in a

variety of local economic development activities, such as conferences, workshops, and projects. Since 2000, he has been an active member of LIASA, presenting papers at workshops, conferences, and other events. He was the LIASA Limpopo PACLIG national representative from 2000 to 2002, and he was previously the chairperson of LIASA.

4.4 PRESENTATION OF FINDINGS

It is critical to remind the reader of the reason for conducting this study. This study sought to investigate the provision of information services in rural areas lacking library facilities in order to develop a framework for bridging the information services chasm.

As a result, the researcher derived themes from the study's objectives, which were to:

- identify information resources and sources in a rural setting;
- determine accessibility of information resources in a rural setting;
- assess infrastructure available for the provision of information services in a rural setting;
- assess the effects of unavailability of public library facilities to residents of rural settings;
- determine factors inhibiting and enabling the provision of information services in rural areas; and
- suggest a framework for bridging the information services chasm in a rural setting.

4.4.1 Information resources in a rural setting

The review of literature guided the conceptual framework for this study. According to Ezema (2016), information resources and sources in rural areas include radio, television, and elders. The purpose of this section is to identify the information resources available in the Taaiboschgroet village. To accomplish this goal, Group A participants were asked to indicate the type of information they require on a daily basis, the location where they obtain information, resources available in the village, and institutions that provide information to villagers. Churches, royal houses, municipalities, stokvels, schools, local civic associations, women's clubs, burial societies, mortuaries, local government offices, nearest libraries, local shops, local clinics, courts of law, and community radio stations were among these institutions. Participants were also asked to name any

other institutions in the village.

4.4.1.1 Information needed by villagers

The review of literature for this study reveals that rural residents require information for a variety of reasons. Everyone requires information in order to understand what is going on in society, to acquire basic necessities of life, and to deal with any given situation (Mtega and Ronal 2013). Vavrek (1995:36) reported that "information needs of rural Americans were centred on social activities such as hobbies and/or crafts, local business or investment, action of government officials, how to reference, legal matters, local history and genealogy, local news, national news, and health or medical services, among others" in the United States of America.

According to Zou and Zou (2014:114), the information needs of elderly people in rural communities in China revolved around physiological needs such as food, clothing, shelter, action, healthcare, and pension policy information.

The conceptual framework for this study, supported by a review of literature, emphasises rural dwellers' need for information on health, farming, housing, education, and business. As a result, participants were asked to indicate the information they require on a daily basis. Participants expressed a desire for information on health, crime, gasoline prices, job advertisements, schools, business, careers, loans, and farming. Participants who were unemployed stated that they needed information on job advertisements. Participants A3, A4, A11, and A17, for example, were unequivocal about their desire for employment opportunities. People must have access to health-related information in order to know which medications to take when they are ill and which foods to eat when they are infected with diseases.

As evidence, Participant A1 stated:

"I need health-related information so that I can maintain a healthy lifestyle."

This was also echoed by Participant A9, a pensioner in need of health information, who believes that as an elderly person, he can be immune to viruses. Participant A9 stated in his response:

"These days, there are a lot of infectious diseases. I need to know how to live to prevent myself from getting infected. For example, there is COVID-19."

The experts also agreed that health-related information is essential in rural areas. For example, Participant B2 described the significance of having access to health information (which other experts agreed on) as follows:

“Nowadays, things are done differently from the way they were done in the past. For example, our great grandparents used to travel for long distances with their bare feet to fetch water, to plant things, and make fire in the bushes. This may be a form of oppression now, but those people were not immune to diseases as they were exercising and eating vegetables most, if not all the time. They were healthy because they were not subjected to processed foods. As such, it is of immense importance that people be reminded of how to live a healthy lifestyle. And this can be achieved if people have access to health information.”

Rural communities are also plagued by crime. People commit crimes for a variety of reasons. Some steal because they are unemployed, while others are simply criminals who have made crime their hobby. As a result, people must always be aware of crime hotspots. In terms of criminal activity in the village, participants gave similar responses. They bemoaned the severity of crime in the village. Participant A1, for example, stated:

“Crime in our village is serious. As a result, we must be alerted to criminal acts so that we can remain vigilant at all times.”

Participants A2 said:

“People are seriously stealing in this village. We need to know about criminal acts in the village. For example, people are stealing donkeys, and sometimes they target people who leave their households for days and steal their belongings.”

The experts also agreed that community members needed to be made aware of crime. According to Participant B1:

“Crime in rural communities appears to be the most disturbing factor that is mainly caused by unemployment levels. As such, access to libraries is necessary so that community members can access crime-related information.”

Because of the high level of unemployment in rural areas, community members also require

information for job advertisements. As a result, some members of the community desired to start their own businesses in order to address the issue of unemployment. Others desired to go into farming in order to provide for their families. There was an element of commonality in their responses, as other participants needed jobs to become self-sufficient. Participant A6, for example, who was unemployed, stated:

“I need information on job advertisements because I am unemployed and cannot keep on depending on my parents at this age. I want to start a business, but due to a lack of money to start a business, I am unable to. I am even thinking of venturing into the farming industry as small farmers sometimes rely on the rain that we get freely.”

4.4.1.2 Location where participants access information

According to Odefadehan et al. (2016), people in rural areas get information at home from their elders, radios, newspapers, and televisions. As a result, the researcher asked participants where they got the information they needed on a daily basis. Participants identified information sources as televisions, radios, and elders, and stated that they could access these sources at their respective homes. Participant A1, for example, stated that they primarily access information at home because they rely on TVs, radios, cellphones, and the internet, which they access through their phones at home. Participants A3, A4, and A6 stated that they relied on social media information. Only a few people relied on their peers or information sharing. Experts also confirmed that people accessed information through cellphones and other devices such as tablets. People also used TVs and radios to access information at home, particularly in areas where access to information is limited due to a lack of access to libraries. The experts were concerned that information obtained from the internet was not always trustworthy. As a result, some people may end up making irrational decisions based on untrustworthy information obtained from the internet.

Participant B1, for example, stated:

“The information from Google and Wikipedia is not reliable. The sources of information available in rural areas are vast and include radio, television, social media, mainly group WhatsApp, libraries, the internet, schools and Early Childhood Development (ECD) centres, storytelling sessions, churches, Thusong service centres and other government service centres. How reliable and sufficient information is quite complex as rural areas are not easily

accessible and the infrastructure is mostly poor in many areas, and one can always expect that even in cases where some infrastructure is right, the odds are against rural areas attracting the bright minds essential for information service delivery.”

4.4.1.3 Resources available for information access

According to Mtega and Ronald (2013), radios, televisions, peers, and elders are among the information sources available in rural areas. The researcher inquired about the participants' information needs, information usage, and information-finding locations. It was critical for the researcher to learn about the information resources available in the Taaiboschgroet village for information access. The researcher deduced from Participant A's responses that the resources available in the Taaiboschgroet were TVs, radios, cellphones, and peers. It is worth noting that the residents were concerned that the village's information sources did not always meet their information needs. For example, radio and television never provided information on job opportunities. Because of the high unemployment rate, participants required access to newspapers and libraries in communities, and some residents could not afford data for browsing the internet and searching for jobs. Some residents were concerned that while TV and radio provided information, they did not effectively alert villagers to job openings.

Participant A2 stated:

"We have radio, TV, as well as cellphones. But it would be better if there were newspapers available. We travel 140 km to and from Senwabarwana just to buy a newspaper for viewing vacancies."

The experts also stated that rural areas had limited resources and that it was not just for information access. There are no paved roads, and some areas still lack water and electricity. Experts agreed that access to public libraries was essential in rural areas to bridge the information services gap.

They identified factors that contribute to the lack of public libraries as:

- poor readership in rural villages.
- many politicians are not interested in educational facilities.

- educated people are migrating from their rural villages instead of promoting them to get resources.
- apartheid spatial planning made rural communities to have an acute shortage of public libraries.
- budget is needed to build more community libraries and equip them with Wi-Fi and other resources.
- a lack of political will.

The experts suggested the following measures to alleviate the shortage of public libraries:

- Formation of reading clubs can result in building new libraries in rural villages.
- Writers' association are encouraged to established writers' clubs that will in turn publish local books.
- Sponsorships by advanced businesspeople can promote readership, which will result in building new libraries.
- Competitions by local municipalities can also promote the spirit of readership, which will result in more library buildings.
- Traditional leaders can be encouraged to promote culture and heritage to preserve more information.
- Annual literary competition by the provincial department of arts and culture could result in building libraries in disadvantaged rural villages.
- Publishers should support the local communities to build libraries.
- Building more community libraries in rural communities.
- Improving digital infrastructure for and internet connectivity for people to access electronic information.
- Building more school and community libraries.

The experts identified the most significant challenge as legislative directives that give the provinces powers and functions in the governance of public libraries, despite the fact that the service is primarily managed by municipalities.

Participants B2 added:

"Many provinces, including Limpopo, do not have the capacity, let alone the competency, to do the service." This arrangement always sparks friction, so municipalities resort to rendering the service on a humanitarian basis as the owner is struggling to fully render the service, and this is the source of the public library and information services delivery problems we have witnessed around public libraries since early 2000. Finalising the legislation on public libraries, partnering with stakeholders like private companies to build

more libraries in rural areas, establishing a credible Service Level Agreement (SLA) on the rendering of public library service between municipalities and the Department of Sport, Arts and Culture (DSAC) in Limpopo, finalisation of the Limpopo provincial strategy, and enhanced stakeholder relations of the library and information sector are critical, as is the continuous training and development of library staff to be more innovative and make more impact with the little resources available.”

4.4.1.4 Institutions available for sharing information

There were institutions in the communities that could provide people with information. Mtega and Ronald (2013) mention churches and libraries as examples of institutions. These institutions are referred to as knowledge-sharing institutions by the authors. As a result, the researcher asked the participants to indicate the role that institutions such as churches, royal houses, municipalities, stokvels, schools, local civic associations, women's clubs, burial societies, mortuaries, local government offices, nearest libraries, local shops, local clinics, courts of law, and community radio stations play in ensuring that people in the village have access to information. The common responses found among participants in answering this question resulted in the creation of a theme and its subthemes. This theme spawned subthemes, which manifested as the institutions mentioned above.

Table 4.2 provides summary of institutions available for information sharing and participants responses

INSTITUTION	RESPONSES
Churches	Participants said they get their information from churches. Participants provided various narratives under the theme churches in their responses. There are those who only get the Word of God from churches, those who do not attend churches, those who despise churches because of phoney pastors, and youth who receive youth counselling from the church.

Royal house	<p>Participants stated that the royal family has no role in information sharing. The narratives of the participants may contain elements of discrimination. Participants, for example, stated that "the Royal House never provides relevant information that I require." Sometimes they tell their friends about job openings, and we find out about them after the deadline."</p> <p>Other participants, on the other hand, requested that the royal house notify them of advertised mining jobs and provide information about gender-based violence (GBV).</p>
Municipalities	The narrations of the participants made it clear that the municipality did not provide them with information. They only learned about municipal issues when it was almost election time.
Stokvels	Participants stated that they only shared money-saving tips and helped each other on a monthly basis.
Schools	Participants stated that schools provided educational information to students as well as coronavirus updates.
Local civic associations	There were no local civic associations in the village, according to the participants.
Women's clubs	Women help each other save money at women's clubs, according to participants.
Burial societies	Participants indicated that burial societies share information on monthly contributions and burial information.
Funeral parlors	Participants indicated that mortuaries only shared information about joining fees, monthly contributions and information on how to claim in case someone dies.
Local government offices	Participants indicated that there were no local government offices in the village.
Nearest libraries	Participants indicated that libraries available were far from the village.
Local shops	Participants indicated that there were local shops in the community, but they never shared information with them.

Local clinics	In terms of information shared by the local clinic, there were common narratives. Participants reported that the local clinic provided information on infectious diseases such as Covid-19, Sexually Transmitted Diseases (STDs), and Human Immune Virus/Acquired Immune Deficiency Syndrome (HIV/AIDS), blood donations, and advice on how to live a
Courts of law	The courts of law were far away and never provided them with information.
Local community radio stations	Blouberg Municipality had Blouberg and Mohodi FM, and the frequency reached Taaiboschgroet. These radio stations, however, were located far from Taaiboschgroet.

4.4.2 Accessibility of information resources in a rural setting

Onyenanchi et al. (2015) emphasise the importance of information resource accessibility in rural areas. The researcher determined that it was necessary to assess the accessibility of information resources in the Taaiboschgroet village in order to guide her in the development of a framework to bridge the village's information services chasm.

The participants were all dissatisfied with the general availability of information in rural areas. The experts also commented on accessibility, and the researcher discovered urbanisation of information and the need to bridge the digital divide in their responses. In terms of information urbanisation, the experts' responses were unanimous in that the disparities between urban and rural areas in terms of access to infrastructure and services remained a challenge. Experts identified challenges such as access to water and sanitation, electricity, roads, and schools (both basic and academic education), as well as libraries and community information centres.

Furthermore, Participant B1 stated:

"Building more libraries and community information centres, collaboration with other stakeholders with an interest in access to information in rural areas, mobilising the community around the idea, and political buy-in are key to promoting investment into the sector and developing policy and legislation key to fast-tracking access to information in rural areas." The South African Public Library and Information Service Act has been shelved for almost a decade, and this has led to the current frustration by those practising in the sector. Reliable and robust internet bandwidth for people to access the internet; reliable electricity; adequate information services such as public or community libraries. reliable and tarred roads. By making rural areas better and setting up high-quality information centres and schools, we can keep educated people from leaving."

The experts also suggested bridging the digital divide in rural areas in general by improving reliability by mitigating access risks such as access to alternative power (solar or generator), improving systems and infrastructure, and partnering with businesses to improve access to rural areas. Furthermore, the Independent Communications Authority of South Africa has enacted

enabling legislation and policy (ICASA).

B3 participant stated:

"We recently had a partnership to provide free access to the internet to some of our libraries free of charge."

People can access electronic information with a strong and dependable internet connection. The government should provide Wi-Fi in rural areas so that people can access information.

B3 participant added:

"Alternative power is the best option. I have seen businesses who use over 70% of the power needed due to the reliability of municipal power supply. "Solar panels and generators can assist in cases of load-shedding."

As stated in section 4.4.1, residents had daily access to information, but they were dissatisfied because they needed information on job opportunities, which is not broadcast on TV or radio, which are mostly used as resources. The researcher discovered that the information available in the village did not meet the residents' information needs. This could be due to a lack of library and information services in rural areas. Access to information services is also a problem in rural areas, according to experts.

Participant B3, for example, stated:

"Lack of access to public library services in rural areas leaves rural people in a desperate situation all the time, considering the issue of unemployment." Not everybody is able to go to town to buy a newspaper. Also, not everybody can afford data bundles for internet access. Because of this, rural areas need public libraries so that people can get information for free."

4.4.3 Infrastructure for provision of information service

According to Ezema (2016), infrastructure is critical in providing information services in rural areas. This objective was to determine what infrastructure was available in the village for the provision of information services. Because none of the experts came from the village being studied, the question about this objective was only answered by community members. The experts only emphasised the importance of rural infrastructure in terms of information provision and access in general.

The participants stated that there was no infrastructure in place to assist with the provision of information services.

Participant A3 stated:

"The issue of infrastructure is a general problem in most communities in rural areas." There are no proper roads, no public libraries, as well as internet cafes."

The experts agreed with Participant A3's response, indicating that the majority of rural areas have limited access to information. They went on to say that the lack was caused by a lack of infrastructure, such as libraries.

4.4.4 Effects of unavailability of public library facilities to residents in a rural setting

According to Nicholson (2017), the lack of public libraries in rural areas has an impact on information access in rural communities. The purpose of this objective was to determine the effects of the unavailability of libraries. Respondents were informed about the Blouberg Municipality's libraries, which include Eldorado, Senwabarwana, and Alldays.

Participants were asked if they had ever visited any of these libraries and what their impression of information access was, what information sources were available in the nearest libraries, what the impact of information found in the nearest libraries was, whether a public library would be important in their village, what benefits access to library information may bring to the village, and whether they believe the Limpopo government is doing everything possible to establish new

public libraries.

4.4.4.1 Visits to the three libraries within Blouberg Municipality

Participants were first asked if they had ever visited any of these libraries and what they thought about the state of information access. The researcher deduced from their responses that very few could visit the nearest libraries. Only Participants A2, A3, A4, and A9, for example, visited the Alldays library, while Participant A4 visited the Eldorado library.

Participant A2, who stated that he visited Alldays Library, said:

"I visited the one at Alldays. The distance between Alldays and Taaiboschgroet is 30km. They have enough information that one needs on a day-to-day basis. There are books as well as access to the internet. The librarians give us a 30 minute voucher to access the internet using the library computers."

Participant A4 indicated:

"I visited the one in Eldorado. There are no recent sources."

Participant A6 had never visited a library in the Blouberg Municipality. He only went to the library of Louis Trichard. He stated:

"I never visited the three libraries. The one I visited is in Louis Trichard and it is well equipped. Materials available in the library include books, internet access, and magazines."

It is also worth noting that other participants were unaware of the existence of libraries in the Blouberg municipality. Participant A11 stated:

"I did not know there were libraries within Blouberg Municipality."

4.4.4.2 Information sources in the Blouberg libraries

Participants were also asked to name the information sources available in their local libraries. Books, newspapers, and internet access were mentioned as resources in Blouberg libraries by participants. Participant A4 stated:

"The books in the Eldorado library are all outdated. There are also old newspapers that one cannot rely on for information on job advertisements. But there are vouchers for internet access in the library."

Participants were generally pleased with their internet access, and they were even allowed to request additional vouchers if their 30-minute time limit had expired.

The most common responses were:

"There are books and computers for internet access."

"Old newspapers, old magazines, and outdated books."

"There are books and computers. They give us internet vouchers that last for hours. But one is allowed to ask for another voucher."

4.4.4.3 Impact of information in nearest libraries

Participants were asked what impact they believed their local libraries had on their lives. Only those who visited the libraries were able to provide narratives about the impact of the nearby libraries. According to participant A2:

"It meets my educational needs. Though I do not visit the library on a day-to-day basis as it is located far from the village."

The nearest library had a positive impact on Participants A3 and A12 because they were able to pass Grade 12 due to access to information in the nearest library. The impact of the nearest library on Participant A6 was as follows:

"The Alldays one impacted positively on my life, as I could renew my licence disc there."

Other participants who had never used the libraries stated that the distance from the village to the nearest libraries prevented them from using them. Participant A11 said:

"I would have visited the libraries if they were closer." They are all far off. One needs transport to access the libraries."

According to the experts, the government is still failing to provide libraries within a 5-kilometer radius. Participant B1 added:

"This would be very beneficial because people would be able to walk to libraries instead of having to travel and pay transportation costs to access public library services."

Furthermore, the experts were mostly concerned that, due to the high unemployment rate, people cannot be expected to pay for public library services that are supposed to be free.

4.4.4.4 Perceived importance of public library in Taaiboschgroet village

The researcher wanted to know if participants thought a public library would be useful in their community. The importance of having a public library in the village was emphasised by all participants. Participants A2 and A4 indicated, however, that, due to the high crime rate in the community, *"It would be very important. The only thing I am worried about is crime, as people may steal the library materials."*

Despite the village's high crime rate, other participants, such as Participant A5-17, stated:

"A library in our village would be very important as the majority of our people here dropped out of school; they cannot read and write; people are unemployed. The library would provide information on job adverts, school-related information, as well as materials for leisure."

Due to a lack of public libraries, experts believe that having libraries in villages would be extremely beneficial, as some information in rural areas is obtained from primary sources, such as older community members, among others. Experts were concerned that information obtained from peers and other members of the community might not always be reliable. The experts agreed on the following: *"Some of the information is biased as it is strictly oral."*

The experts also mentioned that a few rural communities had community libraries where rural residents could get information. Participant B2 added:

"The right vehicle to deliver information services in rural areas is through public libraries; unfortunately, the backlog is too big to improve access to at least a 5 km radius to ensure libraries are within walking distance."

As a result, experts believe that improving digital infrastructure in rural areas will help improve access to information for both government and business. As a result, it was clear that the available services were not entirely dependable or sufficient. The Selwane library, for example, has good facilities, but power outages have hampered access for the past five years. This is a common situation in which a lack of one basic service infrastructure affects all other services.

4.4.4.5 Perceived benefits of access to information in a public library in the village

The researcher also wanted to investigate the potential benefits of access to library information in the village. People use information for a variety of reasons; thus, access to information benefits everyone, regardless of age, gender, or disability, to name a few. Participant As outlined several common benefits of having access to information in their village in their responses.

The advantages were:

"Making reading a habit; being able to make informed decisions; learning how to read and write from a young age; librarians to help apply for jobs; library materials would augment reading materials in schools; getting information from reliable sources; accessing the internet freely."

According to the experts, access to public library services ensures that all communities in the municipality have access to information that will allow the local communities to compete for opportunities in business, jobs, education, or self-improvement on a local, national, and international level. According to the experts, those who do not have access to information are denied the opportunity to compete for resources on an equal footing, whether in business, education, or self-improvement in the global arena.

Participant B2 added:

"Illiteracy is rampant, access to Wi-Fi services is difficult, and people are denied access to newspapers." Some of the major causes of poor rural libraries include a lack of reading interest, illiteracy, and a lack of resources. Politicians are uninterested in reading, which is why they do not pressure the government to build more libraries."

The experts also suggested that book clubs be formed in the villages to ensure that reading becomes a habit. The experts also agreed that libraries should lead by example and support individuals and stakeholders who are interested in improving the culture of reading in rural areas, such as schools and community-based organisations.

B3 participant added:

"We recently had a partnership with Nal'ibali to train stakeholders on reading clubs in Selwane, one of our rural areas, and it was a success in drawing interest from individuals and stakeholders. However, librarians must provide leadership. Early child learning centres, community-based organisations with an interest, librarians, and teachers were invited and trained. Children participated in rural areas. I believe that buy-in from community members, sponsors, or donors is required to provide resources, as is security to prevent theft."

According to the experts, encouraging talented youth to demonstrate their abilities could be a great first step toward establishing book clubs. Local governments, private companies, and the CAC can encourage young people in rural areas to form book clubs.

4.4.4.6 Efforts made by Limpopo province government in building libraries

The researcher wanted to know if participants thought the Limpopo Provincial Government was doing everything possible to establish new public libraries, and they had to justify their answer. According to the respondents, the Limpopo government is not making any notable efforts to build libraries. As a result, residents relied heavily on their phones, radios, and televisions for information. According to the participants, the municipality cannot have only three libraries that are far apart and far from villages, and that do not have access to newspapers. The participants

also bemoaned the issue of poverty eradication through job opportunities created by the library.

Participant A2 emphasised:

"The government is not putting forth any effort to provide information services." There are only three libraries in the immediate vicinity of Blouberg, and these three libraries are expected to serve a large number of villages. What is more painful is that these libraries are too far from other villages and the employment rate is too high. People cannot afford to travel to libraries. This is well known to government leaders, but still nothing is being done to address this issue. There are people who did library courses who are unemployed. If there was a library here, they would volunteer and gain experience."

The experts indicated that the province should build libraries. However, it does not have the capacity or the competency to consider the myriad of problems since 2004/05. The building of libraries is within the mandate of the Department of Arts and Culture in all provinces. Experts believe that, in some instances, it takes four years to build one library, and some libraries have defects before they are open. Furthermore, municipalities spend funds allocated to build new libraries and many more challenges. Municipalities are at the heart of the operation and should assist in enhancing access to libraries and perhaps seek alternative funding from stakeholders.

Participant B3 added:

"In our municipality, only two library buildings were done by the government and the rest by local mines. The government, through the Department of Sport, Arts and Culture and local municipalities, should form the basis for building rural libraries. This should be included in their Integrated Development Plan (IDP) programmes."

4.4.5 Factors inhibiting and enabling access to information in Taaiboschgroet village

This objective was to examine the factors that impede and facilitate access to information in the village. The researcher could identify information gaps by focusing on this objective.

4.4.5.1. Factors inhibiting access to information in Taaiboschgroet village

According to Ejedafiru and Toyo (2015), there are factors impeding the provision of and access to information services in rural areas. The authors emphasise the lack of libraries and proper infrastructure in rural areas. The researcher also investigated factors that impede information access in the Taaiboschgroet village. There are some common factors mentioned by respondents in their responses.

Participant A4 said:

"Shortage of access to library services as well as lack of newspapers are among factors inhibiting access to information in our village."

In her response, Participant A5 supported Participant A4's view:

"Lack of newspapers, libraries, and poor network connection are the major factors that hinder access to information in Taaiboschgroet village."

Participant A11 added:

"Poor internet connection, which leads to difficulties accessing the internet, a lack of community radio stations, and poor community leadership are some of the factors hindering access to information in the village."

Experts agreed that these barriers to information access were widespread.

Participant B2 added:

"Access to information in rural areas is hindered by a lack of access to libraries. This has been in existence since the apartheid regime. Rural settings also have poor network connectivity in that even people who afford data bundles struggle to access the internet."

4.4.6 Factors enabling access to information in Taaiboschgroet village

According to Nwokocha and Chimah (2016), rural residents primarily rely on radios for information access. The researcher also investigated factors that facilitate information access in Taaiboschgroet village. Respondents said they get information from TV, radio, cellphones, and their peers. These sources are commonly found in rural areas where there is no access to library or information services.

In their responses, for example, Participant A4 stated that *"we rely mainly on information we get from TV, radio, and the internet, which we access through our cellphones."*

Participant A5 said:

"Radio, TV, and cellphones are helping us in terms of access to information."

4.4.7 Suggestions for bridging information chasm in rural areas

Nwokocha and Chima (2018) discuss how to bridge the information services chasm in rural areas. The authors' study emphasised the importance of reviewing policies for providing information services in rural areas. This objective sought suggestions from participants on how to bridge the information services gap in a rural setting. Participants made multiple but common suggestions. Participants believed that having a public library in their village, as well as access to newspapers and a community radio station, would help to bridge the information services gap.

Participant A5 provided the following justification for his suggestions:

"We need a library, as information is freely accessible in a library. One does not need to buy data and electricity to access information in the library. The government takes care of data and electricity costs in libraries. We also need community radio stations as well as access to newspapers that are freely available to the unemployed masses."

The experts also provided recommendations on how to bridge the information services gap:

- By establishing more information centres in rural villages;
- By establishing indigenous activities in rural areas to involve all community members;
- By establishing educational centres for adults to engage all stakeholders, especially traditional leaders, to fight illiteracy;
- By provision of adequate libraries in the disadvantaged rural communities;
- By improving network connectivity in the disadvantaged rural communities; and
- By improving roads infrastructure.

Participant B3 added:

"The key to the problem is legislation on public libraries. Libraries are unfunded mandates to municipalities, which currently spend more than 70% of their total budget on public libraries. Firstly, I will recommend that the legislation be prioritised to be finalised. I will further recommend that the operations of the public library service be fully delegated to the municipalities because they are at the scene of operations and currently spending more for the function.

That municipalities be fully supported in carrying out their responsibilities through appropriate systems. Gauteng and the Western Cape have more improved models. All scattered good practice in the sector should be analysed for possible consolidation and implementation. The turnaround time is a problem in that the legislation has been gathering dust for almost ten years; specific timelines should be set for the implementation of the legislation.

All government spheres (national, provincial, and local) are delegated some responsibility for a function. There should be standards in the sector to level the playing fields in terms of access. Proper funding should be allocated for the establishment of public libraries or community information centres in rural areas to enhance access to these areas and reduce the disparities. In the case of smaller communities, the service can still be rendered in partnership with a local school to fast track access.

A functional monitoring system should be developed to force those delegated with the responsibility to report and improve deficiencies with sharp teeth. This is from my observation that where the system provides for consequence management services, they are delivered with great technique, accuracy, and speed.

Incentives or awards for innovative work by both individuals and institutions in the sector will raise the bar for improving access to information in rural areas.

I was pleased to observe, at the 2018 IFLA conference, countries competing on a newly established library facility with distinct innovative library services, which display brilliant ideas by individuals and institutions. Imagine one of our rural libraries or community information centres chosen as the IFLA library of the year. "

The participants were also asked if they had any additional information to share with the researcher, and they all stated that they did not.

4.5 SUMMARY

The fourth chapter presented and analysed the data collected for this study. It began by providing an overview of the participants in the study. Participants in the narrative inquiry were chosen because they live in the Taaiboschgroet village full-time. Participants in the Delphi technique were chosen because they were LIS experts.

To avoid repetition, the researcher transcribed the responses and grouped similar responses when analysing the data. This was primarily accomplished through the use of the narrative inquiry method.

The Delphi Technique was used by the researcher to generate themes based on the responses of the experts. The researcher generated ten themes, which are as follows: availability and reliability of information sources in rural areas, factors contributing to the unavailability of public libraries, measures to alleviate the shortage of public libraries, reducing bias towards oral information, urbanisation of information, steps to start and build book clubs in rural areas, parties to build public libraries in rural areas, bridging the digital divide, effects of the shortage of libraries and recommendations on how to bridge the information services chasm.

The responses of experts and Taaiboschgroet residents revealed how badly the South African government, through the DAC, ignores the need for public libraries in rural areas.

The findings of this study are interpreted and discussed in the following chapter.

CHAPTER FIVE

INTERPRETATION AND DISCUSSION OF FINDINGS

5.1 INTRODUCTION

The data gathered through narrative inquiry and the Delphi technique were presented and analysed in Chapter Four. The interpretation and discussion of findings are provided in this chapter. Several academics have mentioned the significance of interpreting qualitative research studies. According to Neuman (2011), interpretation of qualitative studies begins with the participants' point of view, as the researcher learns how the participants define situations. According to Kothari (2004), the interpretation of research findings is important because it assists the researcher in assigning important meaning to the research findings. Furthermore, Creswell (2009) believes that the researcher draws conclusions from research findings through interpretation. On that note, the findings were interpreted and discussed in accordance with the study's objectives. It is worth noting that the biodata of the participants was requested in order to determine who they were. As a result, the researcher began interpreting the participants' biodata before focusing on the study's objectives, which were to:

- identify information resources and sources in a rural setting;
- determine accessibility of information resources in a rural setting;
- assess infrastructure available for the provision of information services in a rural setting;
- assess the effects of the unavailability of public library facilities on residents of rural settings;
- determine factors inhibiting and enabling the provision of information services in rural areas; and
- suggest a framework for bridging the information services chasm in a rural setting.

5.2 INFORMATION RESOURCES AND SOURCES IN RURAL SETTINGS

The researcher provided the interpretations and discussions of the information resources and sources in rural settings according to subthemes such as:

- information needed by the villagers
- the location where participants access information
- the resources available for information access
- the institutions available for information sharing.

There are numerous information sources that disseminate and communicate information to rural residents. Town criers, oral information from neighbours and friends, age groups, elders, farmer groups, village leaders, agricultural extension officers, family and/or parents, radio, TV, internet, books, brochures, films, leaflets, newspapers and magazines, colleagues, marketplaces, mobile phones, sociopolitical meetings, traditional festivals, songs and dance, and many more are among them (Odefadehan et al. 2016; Mtega & Ronald 2013). Participants in this study stated that they relied primarily on radio, television, cellphones, and their peers (section 4.4.1.3). This could imply that the village's available resources and sources did not meet all of the villagers' information needs, as some needed information on job advertisements and the resources available did not provide information on jobs. This is consistent with Mohammed's (2019) findings, which indicate a lack of information sources in rural areas that are required on a daily basis. The situation in Taaiboschgroet confirms the findings of Maepa's (2000) study on villagers, which included, but was not limited to, radios, television, friends, and relatives. This, in turn, has an impact on rural information access and dissemination.

5.2.1 Information needed by villagers

According to Mohammed (2019), rural residents require information for a variety of activities such as health, schoolwork, housing, farming, religious, and business. This was agreed upon by Harande (2009). Members of Taaiboschgroet village require information on health, crime, fuel price, job advertisements, schools, business, career information, loans, and farming. Participants who were unemployed stated that they needed information on job advertisements (section 4.4.1.1). Taaiboschgroet's available resources do not meet all of the villagers' needs. The villagers, for

example, raised the issue of job advertisements.

There are no sources in the village that provide information on job openings. As a result, the importance of having access to newspapers cannot be overstated. Despite the high unemployment rate, many rural areas lack access to newspapers. Newspapers do contain information on job postings. Villagers would apply for jobs for which they are qualified. Ngoepe et al. (2017) reported a lack of newspapers in Makgabeng Village, a rural area in the Limpopo province's Blouberg Municipality. As a result, rural residents are denied access to the information they require on a daily basis. Having access to the necessary information would help to alleviate unemployment by encouraging other members of the community to engage in farming. This would benefit not only the country's economy, but also the health system, because farmers produce food that requires ingredients. Farming alone necessitates labour and has the potential to contribute to village job creation. The same is true for establishing small businesses in the village. According to Malatji (2020), a lack of information access promotes social exclusion among community members because only the advantaged rural members have access to information as opposed to the marginalised ones. This is in response to members of the community who have access to information via their cellphones. These are people who can afford data bundles and can search the internet for available jobs. Rural-urban migration is exacerbated by a lack of information in rural areas. As things stand, rural residents are migrating to cities in search of work. Some parents even leave their children at home with no one to help them with their homework, and the children end up relying on book clubs to complete their homework (Boloka 2020). Rural-urban migration has a negative impact on schoolchildren in areas where book clubs do not exist, such as Taaiboschgroet, the context for this study.

5.2.2 Location where participants access information

Participants stated that they accessed information at home primarily because they obtain information from television, radio, and cellphones (4.4.1.2). This implies that rural dwellers and rural communities are not taken into account by the government because the government is supposed to ensure that everyone, according to the constitution, has access to information, which is stipulated in the South African constitution as one of the Bill of Rights. As things stand, South Africa is not entirely democratic, with apartheid disparities still visible in most rural areas of the Limpopo province. This was noted by Mojapelo (2019), who emphasised the disparities in access

to information in rural areas.

Limpopo Province's situation is exacerbated by a lack of public libraries to serve as information service providers to rural residents. Nonetheless, the available public libraries lack the resources required by rural residents. The experts identified the legislative directives as the most difficult challenge, as the constitution grants powers and functions to the provinces while the service is primarily managed by municipalities (4.4.1.3). Municipalities also spend funds designated for the construction of new libraries (4.4.4.6).

5.2.3 Resources available for information access in the village

Radio, television, cellphones, newspapers, peers, and professionals are among the resources available for information access in rural areas (Mtega & Ronald 2013; Jiyane 2009; Maepa 2000). This suggests that the resources available in urban areas for information access are far superior to those available in rural areas. In 4.4.1.3, for example, participants indicated that they primarily rely on radios, television, peers, and their cellphones for information access. Even experts can attest that TV and radio are sources in rural areas. This alone had resulted in the digital divide. According to NLSA (2016) reports, there are more public libraries in Gauteng than in Limpopo, despite the fact that Gauteng is smaller. People in rural areas frequently travel to obtain information. Participants, for example, stated that they travel approximately 60 kilometres to access newspapers (4.4.4.2). Given the village's high unemployment rate, this has a financial impact on the residents. According to Manamela and Rambuda (2016:141), "many people from rural areas are frequently sidelined and overlooked in terms of information dissemination." A relative majority of rural people are often faced with a slew of challenges when it comes to accessing full and equal information because they are deemed illiterate and undeserving (Manamela & Rambuda 2016). This could be resolved if there were book clubs and institutions such as community information centres to provide rural residents with day-to-day access to information.

5.2.4 Institutions available for information sharing in rural areas

Respondents were asked if they received information from places like churches, the royal house, municipalities, stokvels, schools, local civic associations, women's clubs, burial societies, mortuaries, local government offices, nearest libraries, local shops, local clinics, courts of law, and community radio stations (4.4.1.4). They stated that, despite the fact that they required information on farming, education, health, and gasoline prices, the institutions provided no assistance. Churches only provided God's Word. They were never given any information by the royal family. They prioritised people who were close to the chief. Municipalities did not provide them with any information either. Mortuaries and burial societies were only concerned with funeral arrangements and membership fees. There were no local government departments nearby that could provide the villagers with information. The shops were solely concerned with selling food to the villagers. Courts of law were extremely distant from the village, and villagers never received information from the courts, despite knowing that the court would provide legal information. Despite the availability of three libraries in the Blouberg Municipality, very few people could visit them due to the distance between them. Eldorado's library was said to house old materials. The library in Alldays was also far away, and the villagers needed transportation to get there. The few villagers who came here were only looking for information on how to renew their licences and never used the library. Respondents also said they never went to the Senwabarwana library because it was too far away from the village.

These findings revealed that information access in the village is inadequate. It would be preferable if institutions such as community information centres existed so that more people could be reached. According to Davids (2011:52), "people with no basic digital skills can easily get assistance from officials at the centre, or from fellow centre users." According to the author, "most places offer users training opportunities, information about government services, and free internet access" (Davids 2011:52). Ndinde (2014) also emphasises the importance of community information centres, which have internet access and can help community members find the information they need online. Respondents, for example, stated that they needed information on

job advertisements and expressed regret that they were unable to access job vacancies because sources in the village do not provide information on vacancies. As a result, members of the community access the internet via their cellphones. This means that those who cannot afford data bundles will be unable to access the internet. The establishment of community radio stations would also aid in the dissemination of information. Telecentres in Malawi help bridge the digital divide between the rich and the poor. Zambia and Zimbabwe are also affected. According to Chikimba (2011:93), "in Zambia, access to telecommunication is seen as a basic right of citizens, and multipurpose community telecentres have been established in deep rural areas of Zambia to enable the poor to exercise this right."

5.3 ACCESSIBILITY OF INFORMATION RESOURCES IN A RURAL SETTING

Access to and provision of information in rural communities is hampered primarily by "a lack of basic infrastructure, low levels of literacy, a lack of adequate and relevant information resources and services, and the absence of literacy programmes" (Ejedafiru & Toyo 2015:23). Rural areas are frequently plagued by a lack of infrastructure.

In rural areas, for example, there are no tarred roads, and access to ICT is difficult. This has the direct consequence of most rural dwellers having no access to information. For example, when asked about access to information services, participants stated that, due to a lack of libraries, they had to listen to the radio, watch TV, and use their cellphones to access the internet (4.4.5.2). This is in direct conflict with the provisions of the South African Constitution (1996)(1)(b), which state that everyone has the "freedom to receive and impart information or ideas" (Republic of South Africa, 1996). These rights will be realised only when all citizens, including those living in rural areas, have access to ICTs. According to the current researcher, a lack of infrastructure such as a network connection, electricity, and proper roads should be considered an infringement of that constitutional right. ICTs have emerged as relevant tools capable of ensuring that all citizens benefit from ICTs. Access to information and the dissemination of ideas would be possible only if proper infrastructures were in place.

5.4 INFRASTRUCTURE AVAILABLE FOR THE PROVISION OF INFORMATION SERVICES IN RURAL SETTINGS

The year 1994 marked the dawn of the new democratic South Africa, bringing its own set of challenges to the country (Ntakana 2017). One of these challenges includes that of the accessibility of information services in rural areas. The participants indicated that information is not accessible in the village due to a lack of proper information resources such as public libraries (4.4.3). Experts lamented the lack of proper roads, public libraries, as well as internet cafes. The importance of infrastructure in rural areas in information provision and access in all rural areas was reported to be lacking by the experts (4.4.4.5). Generally, rural dwellers need information on agriculture, health, the economy, government policies, education, culture and recreation, and rural development. For example, Zou and Zou (2014:114) state that "the information needs of elderly people in rural communities revolved around physiological needs, such as food, clothing, shelter, action, healthcare, and pension policy information." However, these needs appear to be taken for granted by the government due to a lack of libraries in rural areas. Young people need access to information on a day-to-day basis to make decisions about their careers. This information would have been available to them if they had had access to information resources such as libraries. Zou and Zou (2014) indicate that the most common age group of the library users ranged from 18 to 27 years old and from 28 to 37 years old. Information access in rural areas appears to be problematic, taking into consideration information access in rural areas. For instance, not all Zimbabwean communities are "effortlessly able to access information, while in affluent urban centres, access to information is not a challenge as there are abundant sources of information from which people can obtain information" (Ndirinde 2014:45).

Even though South Africa has also taken the initiative to create Community Information Centres (CICs) with the aim of providing technologies that can be useful in providing information and making communication more effective, it is evident that some communities still have no access to these kinds of services.

5.5 EFFECTS OF UNAVAILABILITY OF PUBLIC LIBRARY FACILITIES TO RESIDENTS OF RURAL SETTINGS

The informational and developmental needs of a high percentage of the population of rural communities in Africa are inadequately met. Literature has proven that the majority of the rural population in South America is excluded from and deprived of their right to access information. This has also been noted by Manamela and Rambuda (2016), who posit that the majority of urban areas, if not all, have wall plugs, flyers, and billboards, among other things, that can serve as a source of provision of information; but this is not the case in most rural areas. For example, the respondents indicated that the available libraries in the Blouberg Municipality are located far from their village; therefore, they needed transport to access the libraries (4.4.3). The respondents indicated that the Limpopo government was not making any remarkable moves towards building the libraries. As such, residents relied mainly on their phones, radios, and TVs for information access. What has been commonly said by the participants is that the municipality cannot have only three libraries that are far apart and far from villages, and that have no access to newspapers (4.4.4).

This suggests that if rural dwellers want to access information, they need to have money for transport. This is not the case with urban areas, where vast amounts of information are available. This lack of access to information led to the digital divide. The South African government should ensure that rural dwellers are afforded the opportunity to access information in order to bridge the gap between urban and rural dwellers, as rural and urban areas both form part of the country. Provision of information in South Africa is shaped by legislative frameworks such as the Promotion of Access to Information Act 2 of 2000 (PAIA) and the Batho Phele White Paper, among others, that encapsulate the issues and emphasise efficient access to and provision of information. Additionally, the Human Rights Commission supports the notion of the provision of information for all. Yet, after the implementation of these laws, regulations, and legislative frameworks, rural dwellers are still deprived of the opportunity to have access to information services.

5.6 FACTORS INHIBITING AND ENABLING THE PROVISION OF INFORMATION SERVICES IN RURAL AREAS

This section focuses on the factors inhibiting the provision of information services in rural areas as well as factors enabling the provision of information services in rural areas.

5.6.1 Factors inhibiting the provision of information services in rural areas

A lack of access to public library services has proven to be one of the factors inhibiting the provision of information in rural areas. Public libraries aim to provide information services to satisfy the information needs of their users. The provision of public library and information services entails acquiring, organizing, and making relevant information resources accessible through appropriate facilities and means best known to the users (Iwhiwhu & Okorodudu 2012). Therefore, the provision of public library services is a method of improving users' literacy and education levels, as well as their ability to effectively use information relevant to their daily lives (Oni et al. 2014). This means that Taaiboschgroet village members are deprived of the opportunity to access public library services despite the level of unemployment as well as the level of education for the residents. According to Obasi (2015:17), "public library and information services generally revolve around community information services, reference services, storytelling services, film show services, reading competition services, career information services, photocopying services, opening hours, online internet services, lending services, reference services, photocopy services, indexing and abstracting services, and bibliographic services." Other services include telephone, recreational and advisory services; current awareness; selective dissemination of information; bookmobiles; referral services; children's/school services; computers/internet/ICT; translation services; user education; outreach and extension programmes; adult literacy programmes; consultancy services; audiovisual services; and packaging and repackaging of information services, among others". These services are not available in the Taaibosgroet village.

5.6.2 Factors enabling provision of information services in rural areas

Members of the Taaiboschgroet stated that they relied solely on information obtained through television, radio, and cellphones. They connect to the Internet via cellphones. The situation would improve if the village had access to public library services.

5.7 SUGGESTIONS FOR BRIDGING THE INFORMATION SERVICES CHASM IN A RURAL SETTING

Malatji (2020) suggests that to address challenges in rural areas, a rural development strategy for the Limpopo Province should contain policy tools that will promote infrastructure development for better access to education, communication, transport, safe water, and other basic facilities. Both the villagers and the experts suggested the need for access to public library facilities. Community members indicated that they would stop buying data to access information because public libraries offer internet vouchers so they could access information in the library. Participants also indicated that community radio stations as well as access to newspapers that are freely available to the unemployed masses would help bridge the information services chasm (4.4.7). Literature also suggested the availability of community information centres for access to information in rural communities.

5.8 SUMMARY

This chapter provided interpretations and discussions of the study's research findings. Based on the literature reviewed in Chapter Two and the conceptual framework for this study, the data presented in Chapter Four were discussed and interpreted. The researcher contends that, despite rural residents' multiple information needs, there were no relevant information sources to meet those needs.

The lack of public libraries and adequate infrastructure also poses a serious threat to vulnerable communities. If community members had access to library and information services in the village, the high level of unemployment would be reduced while the low literacy levels would be improved. The following chapter focuses on the study's summary, conclusions, and recommendations.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

6.1 INTRODUCTION

Chapter Five provided the interpretation and discussion of the data presented in Chapter Four. This chapter summarises the findings of this study and provides conclusions and recommendations based on the findings. According to Kalusopa (2011:263), there are factors a researcher should consider when providing conclusions and recommendations for a study, which are:

- conclusions and recommendations should clearly be related to the findings
- the researcher should not over-conclude by avoiding unwarranted conclusions and generalisation of findings
- all research questions should be answered.

This chapter, as per the study's objectives, includes the summary of findings, conclusions, recommendations, a suggested framework to bridge the information services chasm in rural settings, and proposed topics for further research. The researcher hopes that the framework will enlighten the leaders in all spheres of government as far as information service provision and access in rural settings are concerned. The framework will provide guidelines on how to effectively ensure information access in rural settings, despite the lack of public library facilities in those settings. Additionally, the importance of the availability of public library facilities will be provided.

This study was aimed at exploring the provision of information services in rural settings without library facilities, with the view to developing a framework to bridge the information services chasm. In order to achieve the aim of this study, there are research objectives that served as the building blocks for this study. The specific objectives were to:

- identify information resources and sources in a rural setting
- determine accessibility of information resources in a rural setting

- assess infrastructure available for the provision of information services in a rural setting
- assess the effects of unavailability of public library facilities to residents of rural settings
- determine factors inhibiting and enabling the provision of information services in rural areas
- suggest a framework for bridging the information services chasm in a rural setting.

6.2 SUMMARY OF FINDINGS

The researcher provides a summary of the findings in accordance with the objectives of the study. However, the participants' biodata were not part of the research objectives, but the researcher found it necessary to ask for it in order to have a picture of the people being interviewed.

6.2.1 Information resources and sources in rural settings

Access to information on a daily basis is crucial for rural dwellers to make informed decisions. As it stands, there are not enough information resources in rural settings to meet the information needs of rural dwellers. Rural dwellers have different information needs, such as agriculture, health, education, religion, and political associations. However, the meagre resources available in rural settings are not sufficient for rural dwellers to survive in the information age. The sources available in Taaiboschgroet included TV, radio, and cellphones.

There are absolutely no newspapers available to the villagers. Some used their cellphones to access information on the internet. However, accessing information on the internet means they have to have enough data to access information. As such, unemployed people will always find it difficult to access information online. The available resources do not meet the needs of many people who are looking for job opportunities that are never advertised on radio or television. Information is a vital tool for addressing societal challenges for sustainable development. "Rural people need information for the development of their communities in various spheres of life" (Momodu 2012:91). Information comes in various formats and languages, targeted at various categories of users. Tabor (2009:2) notes that people in rural areas are more accustomed to oral traditions and can better relate to information exchanged in that way. Public libraries have an important role in the provision of relevant and effective information sources and services in formats and languages best understood by rural dwellers for sustainable development.

Thus, the development of any rural community is a positive indicator of the development of a nation, and information dissemination through public libraries is an essential ingredient in the development of rural communities since rural populations cannot become knowledgeable and

powerful if they do not have relevant information to empower their thinking and enhance their understanding.

6.2.2 Accessibility of information resources in a rural setting

The need for information access in rural settings cannot be overemphasised. It is crucial that information should be accessible at all times. The results of this study indicated that information is not accessible in rural areas. It is the role of the government to ensure access to information in all parts of the country. However, information access appears to be problematic, mostly in rural areas. People in urban areas have access to a vast amount of information as they are close to many sources, such as newspapers, stores that have free Wi-Fi, TVs, and radios. Information is needed by rural inhabitants in almost all areas of human endeavour.

6.2.3 Infrastructure available for the provision of information services in rural settings

The issue of infrastructure existed even before South Africa became a democratic country. Infrastructure in rural areas includes roads, water supply, public libraries, public hospitals, schools, and telecommunications structures. The findings indicated poor infrastructure in the rural areas. The government is focusing mainly on improving infrastructure in urban areas. This is not the case in South Africa alone. In Nigeria, the government develops urban areas while paying little attention to rural areas. Malatji (2020) also says that the rural population has low productivity, social and economic backwardness, and this is mostly due to ignorance, which is a direct result of them not getting enough information or none at all.

This demonstrates the absence of relevant information infrastructures for addressing rural dwellers' information delivery and development challenges. Thus, the situation will undoubtedly continue to raise questions among rural dwellers about whether they are still part of the larger society or not.

6.2.4 Effects of unavailability of public library facilities to residents of rural settings

The findings indicated that the unavailability of public library facilities in the Taaiboschgroet village poses a serious threat to the accessibility of information for the rural dwellers. The participants emphasised the need for a public library as this would give them free access to the internet; there would also be books in libraries for them to read; and they would be informed about their information needs.

6.2.5 Factors inhibiting the provision of information services in rural areas

Certain infrastructures in the information sector are required for the delivery of information services and the provision of information needs of rural inhabitants, thereby contributing to rural community development (Mtega & Ronald 2013). This therefore positions information, emphasising it as a tool for development in rural areas. However, the findings of this study indicated the lack of information services provision in the village, which is caused by a lack of proper information sources such as libraries and newspapers. The other challenge appeared to be a lack of infrastructure in rural areas. The need for information sources and services should be taken into consideration because of the level of social and infrastructural decay, non-existent social and economic facilities, and unemployment.

6.2.6 Factors enabling the provision of information services in rural areas

The findings indicated that rural dwellers rely on their own sources of information to access information. Yet, South Africa is regarded as a democratic country. Democracy, according to the researcher, means fair and equal treatment among residents, whether they are from rural or urban areas. However, apartheid inequalities are still evident in most rural areas of the Limpopo province. South Africa became a democracy in 1994. At the time of this study, 26 years had passed but access to information, which was problematic before democracy, was still problematic.

6.2.7 Framework for bridging the information services chasm in a rural setting

The findings indicated that there is a need for access to newspapers, public library facilities, and a community radio station. The literature also suggested the need for a framework to bridge the information services chasm in rural areas. The need for book clubs was also suggested. The suggestions brought forward require a solid plan to address the inaccessibility of information in rural settings.

6.3 CONCLUSIONS

This section provides the conclusions of this study. These conclusions are provided in accordance with the objectives of this study.

6.3.1 Information resources and sources in rural areas

Various studies in the literature have shown that rural dwellers in our communities need unhindered access to information to enable them to be better informed for decision-making involving all aspects of their lives (Mtega 2012). This required information, which may be agricultural, health, economic, social, or even academic, should not only be timely, accurate, and reliable, but also directly applicable and relevant to rural dwellers' continued existence and productivity in their various endeavours. Unfortunately, the findings indicated that despite their need for information on a day-to-day basis, the Taaiboschgroet residents have no access to information resources and sources to properly cater for their information needs. Public libraries would resolve issues of complete lack of access to information. This can be a problem since there are cases in Nigeria where libraries are available but they do not cater for all rural dwellers, such as farmers. For example, in his study, Aina (2004) discovered that the libraries in Nigeria hardly served the rural dwellers, such as artisans and farmers, who were barely literate and constituted a substantial majority of the country's population. This demonstrates that the development of library and information services in Nigeria is flawed because it is aimed at a tiny minority of the society. This should be avoided in South African libraries. Current information sources at the Taaiboschgroet village are not enough to cater for the information needs of the residents.

6.3.2 Accessibility of information resources in a rural setting

Access to information is a basic human right. The need for rural dwellers to have access to information has been tackled in empirical reports. Information is considered a vital resource to developing the nation. Ideally, the availability and accessibility of information results in knowledge sharing and informed communities. From the findings, it suggests that for a community to develop, knowledge should be shared among them. They cannot develop without knowledge. Access to the right kind of information by rural communities can help them to acquire the skills, knowledge and confidence to participate fully in community affairs.

Moore (2007:6) avers that "Information is a key contributor to the development of individuals and communities." People need information to develop their potential through education and training, to succeed in business, to enrich their cultural experience, and to take control of their daily lives. This study shows that access to information is not equal throughout society, as some who cannot afford data bundles cannot access online information. The unemployed will not be able to travel to buy newspapers. The findings of this study also showed that there is still a noticeable gap between rural and urban areas in terms of information access. People living in affluent urban centres can choose from an abundant array of information sources.

In contrast, people living in poor communities are frequently denied access to information that could improve their lives. This situation is particularly severe in many rural areas of developing countries. For example, Harande (2009) notes the multidimensional needs of rural dwellers, which include:

- The neighbourhood: information needs in the neighbourhood include problems of water supply, electricity supply, environmental sanitation, refuse disposal, road maintenance and drought.
- Health information on how individuals can prevent different diseases that affect them, and awareness of available healthcare delivery and what it costs.
- Agriculture and allied occupations: the greatest area of information needs by rural Nigerians is in agriculture. Such information needs include planting treated seeds, soil

conservation, prevention of plants and animal disease, fertilizer application, farm machineries, recommended thinning practices, proper storage of farm products, marketing techniques, cooperative activities and other agro-cultural activities.

- Education: information needs of the existing rural schools, needs of the illiterates and semi-illiterates. They need to have relevant information that will develop in their interest and support of teaching and learning processes.
- Housing: rural public need information about where they can obtain loans to build houses and the type of materials to be used and where they can be easily obtained.
- Employment: rural communities need information on employment opportunities, taxation, investment opportunities, banking and other financial activities.
- Transportation: they need information on the cost of bicycles, motorcycles and vehicles, and where to obtain them, as well as information on road construction and maintenance.
- Religion, recreation and culture: information is required on religions, recreations and
- Cultural activities.
- Welfare and family matters: information is required on problems of marriage, childcare, juvenile delinquency, etc.
- Legal matters: information is needed on laws that affect the rural dwellers. Such law ranges from marriage to land.
- Crime and safety: information is required on how to prevent crimes, report crimes, role of the law enforcement agents, etc.
- Policies and government: information is needed on political rights of the people and how they can exercise such right.

These information needs necessitate daily access to information in rural areas, which is not the case in Taaiboschgroet. As a result, government intervention is both required and urgent. The conclusion is that needed information is never available.

6.3.3 Infrastructure available for the provision of information services in a rural setting

Infrastructure is defined broadly as long-term physical assets that operate and enable the provision of goods and services to people in a society (New Zealand Social Infrastructure Fund 2009). This study's findings revealed a lack of infrastructure in terms of information access. Infrastructure such as the

public library building itself, as well as ICT infrastructure such as internet connection and access, are highly dependent on the affordability of rural residents.

The findings revealed that ICT and library infrastructures are the fundamental installations and facilities on which a community or state can rely for survival and growth. Rural infrastructure should be classified as social, economic, technological, scientific, and information infrastructure, among other things. In rural areas, social infrastructure such as roads, telecommunication networks, electricity supply systems, and water supply systems are all that is required.

For example, social infrastructure is a subset of the infrastructure sector that typically includes assets that house social services, such as schools, universities, hospitals, prisons, and community housing. Social infrastructure does not typically include the provision of social services such as teachers in schools or custodial services in prisons. The findings revealed that there is no infrastructure in the village to support the provision of information services. This, too, necessitates government intervention.

6.3.4 Effects of unavailability of public libraries in a rural setting

The lack of public libraries in rural areas has been shown to have a negative impact on rural residents' access to information services. The importance of public libraries and information services cannot be overstated because rural residents must make informed decisions about their health, careers, and farming, among other things. Internet vouchers are available at public libraries for users to use in order to access the internet. As a result, the same service is required in Taaiboschgroet village and other Limpopo province rural communities that lack access to public library facilities.

6.3.5 Factors inhibiting access to information in rural settings

The findings revealed that a lack of infrastructure for information services provision remains a barrier to access to and provision of information services in the area. According to the literature, there is a need for book clubs, information centres, public libraries, and community radio stations. Finally, the Taaiboschgroet village requires adequate infrastructure for information access.

6.3.6 Factors enabling access to provision of information in rural areas

The findings revealed that community members rely heavily on information obtained from television, radio, and the internet via cellphones. This has limitations in terms of information access, as some important information sources, such as newspapers, are not accessible in the village, despite the village's high unemployment rate. Participants stated that they needed newspapers to find job openings because radio and television do not provide information on job advertisements.

6.3.7 Framework for bridging information services chasm in rural settings

Government intervention is crucial for addressing the information services gap. The DAC should prioritise the provision of mass information services through conditional grants.

6.4 RECOMMENDATIONS

This section covers recommendations for dealing with the issues identified during the study. Recommendations are provided on all the research objectives of this study.

6.4.1 Information resources and sources in rural setting

It is recommended that the South African government uphold the provisions of the UDHR, IFLA, and the constitution, as the constitution recognises access to information as a fundamental human right. This should be done to avoid rural residents migrating to cities primarily to access information. According to the literature, rural residents migrate to cities due to a lack of access to ICTs in rural areas. According to the researcher, rural-urban migration is one of the consequences of rural ICT adoption being low. Failure to create environments that allow for easy adoption and access to ICTs in areas where access to services and employment remains difficult, causing people to feel compelled to relocate to areas where access to services and employment opportunities is easier (Miheretu 2011:100). ICTs can connect people to services like health care and education, as well as provide opportunities to apply for jobs that are advertised online. As a result, residents of Taaiboschgroet village use their cellphones to connect to the Internet.

6.4.2 Accessibility of information resources in a rural setting

It is recommended that the South African government make information services accessible in rural areas. There are people with LIS qualifications who are currently unemployed and would be willing to assist in modular or mobile libraries in order to gain work experience. The majorities of librarian positions advertised require a LIS qualification as well as work experience. Universities also have students who are always looking for places to practice as part of their work-integrated learning.

6.4.3 Infrastructure available for information service provision in rural areas

This study recommends that ICT facilities, public libraries, tar roads, and telecommunication infrastructure be built to meet the day-to-day information needs of rural residents. According to Mtega and Ronald (2013), adequate infrastructure is required for information provision, delivery, and access in rural areas. Community information centres and community radio stations are examples of information infrastructures. The following information infrastructures are discussed:

- **Community information centres**

It is recommended that rural communities establish community information centres, which repackage information through exhibits, leaflets, brochures, newspapers, and oral information delivery techniques to empower rural community members.

- **Community radio stations**

According to Al-hassan, Andani and Abdul-Malik (2011), community radios, unlike commercial radios, are non-profit organisations that broadcast information of interest to the geographic communities they serve. People who live in the areas served run and motivate these radio stations. Community members are frequently invited to radio shows to share their stories with other members of the community. The purpose of these radios is to help rural communities develop by sharing and disseminating information.

6.4.4 Effects of unavailability of public library facilities to residents of rural areas

This study recommends that the DAC provide mobile libraries to rural areas with no access to information through conditional grants. The formation of book clubs would also aid in closing the gap.

6.4.5 Factors inhibiting the provision of information services in rural areas

Poor infrastructure, a lack of access to public libraries, and a high unemployment rate, which results in a lack of funds for data bundles, appeared to be the most impedimental factors to the provision of and access to information services in Taaiboschgroet. According to the literature, these factors are also present in rural areas. Not only do rural areas in South Africa lack information services, but so do rural areas in Nigeria, which suffer from a lack of infrastructure and public library facilities. This study then suggests that the government invest in infrastructure to support the delivery of information services.

6.4.6 Factors enabling the provision of information services in rural areas

According to the findings, cellphones, television, and radio attempted to provide access to information, but this was insufficient. According to the findings of this study, the government should provide free newspapers to residents.

6.4.7 Framework for bridging information services chasm in a rural setting

This study suggests the establishment of public libraries, community information centres, radio stations, and access to newspapers. In rural areas, community profiling is required so that information can be provided to community members. According to Aina (2004), "non-literate users" in rural areas are "users who cannot read and write in any language, and those who are barely skilled or even acquire reading skills." This category includes artisans, farmers, and many rural residents. They account for the majority of information users in Africa. The library often meets the needs of this group by hosting book discussions, lectures, and audiovisual presentations." To package information for this group of users, public libraries frequently work

with the media and government information units.

Literacy is a problem that needs to be reassessed in rural communities because it affects their access to and utilisation of information. As a result, innovative approaches to this end are required. Rural information dissemination should, in fact, emphasise change and be dynamic. In addition, the rural populace would be grateful if there could be a prototype information support system for rural development projects that takes policymakers, researchers, change agents, and the rural people themselves into account.

6.5 SUGGESTED FRAMEWORK FOR BRIDGING INFORMATION SERVICES CHASM IN RURAL SETTINGS

The final objective of this study was to propose a framework for bridging the information services chasm in rural settings. The researcher proposes the framework in Figure 6.1 based on the conceptual framework for this study, the objectives of this study, and the responses of this study's respondents.

The proposed framework takes into account the complexity and slow pace with which the DAC in Limpopo constructs public libraries. The researcher suggests a simple method for bridging the information services gap that does not require the involvement of the government. The framework's stakeholders include the chief/headman, LIS graduates, NGOs, provincial library services, radio stations, book clubs, network service providers, and the NLSA, Nal'ibali.

The LIS Transformation Charter addresses the transformation of South African library and information services. Access to information is also emphasised as a fundamental right in the South African Constitution. Based on the findings of the two organisations, as well as a study by Maepa (2000), the researcher recommends that access to information in rural areas be prioritised. Apartheid laws, which resulted in a lack of access to information in rural communities, should no longer be cherished. Furthermore, the DAC, which is responsible for ensuring the provision of information services in this democratic era, is not treating rural communities fairly.

One of the reasons for South Africa's high illiteracy rates in rural areas is a lack of access to information (Boloka 2020). Willenberg (2018) found that 78% of South African learners cannot read for meaning in his study.

Le Roux (2017) discovered in her study that 85% of South Africans are non-readers, that more than half of all households have no books, and that only 5% of the population reads to their children. This is most common in rural areas where there are no school libraries or book clubs. According to Du Plessis (2019), the Department of Basic Education identified reading barriers in rural schools as a lack of appropriate facilities and infrastructure, as well as limited access to textbooks and resources. In an effort to address the reading crisis in rural schools, book clubs such as Reatlegile Book Club play an important role in reducing illiteracy (Boloka 2020).

The Sepedi language has a saying that “*sehlare se kobja e sa le se se nanana*” (a plant is tended while young) – loosely translated, it means that any efforts to develop a person should begin while they are still eager to learn. This means that children who are exposed to reading at a young age will only achieve better results. As a result, high levels of illiteracy in rural areas will become a thing of the past. This necessitates parental involvement as well as the availability of reading materials. Willenberg (2018) indicates in his study that promoting a reading culture, encouraging parents to read to their children, and making books more accessible are some of the strategies for development and reducing illiteracy in South Africa.

South Africa ranks near the bottom of the international list of learners who perform poorly in reading, writing, and numeracy. The 2016 Progress in International Reading Literacy Study (PIRLS) tested Grade 4 and Grade 5 reading in approximately 50 participating countries, including South Africa, according to the National Reading Coalition. PIRLS tested Grade 5 learners in isiZulu, English, and Afrikaans and discovered that 49% of children could not read at the lowest benchmark of 400 out of 1000 points, while this rose to 78% when Grade 4 children were tested in their home languages. The findings also revealed that learners in South African rural public schools performed worse in languages than their urban counterparts. Overall, South African learners' performance in this international benchmarking assessment remained near the bottom of the study rankings.

South Africa has a worse reading situation than America. Reading is not a problem in America, as 16-year-olds can organise and run book clubs. One of their interests is reading (Daniels 2002). The proposed framework includes stakeholders such as the village chief, LIS graduates, the local taxi

association, NGOs, provincial library services, radio stations, book clubs, network service providers (Vodacom, MTN, Telkom), the NLSA, and Nal'ibali.

Each of these stakeholders has a unique role to play. The rural communities benefit from this framework. Maepa (2000) believes that rural communities should be at the centre of all efforts aimed at providing rural information services.

This framework is designed in such a way that the government is not necessarily required to be involved in the creation of the community centre. This is due to ongoing disappointments in the provision of information services in rural areas. This model requires the members of the village to collaborate as one. Members of the village can also donate to the information centre so that they do not have to wait for the government to provide library services. Within the municipality of Blouberg, there are only three libraries, all of which are quite far apart. The DAC's specified 5km radius is never encountered in rural settings. As a result, it may take the government longer to provide information to all rural communities. This model can be applied to other villages as well.

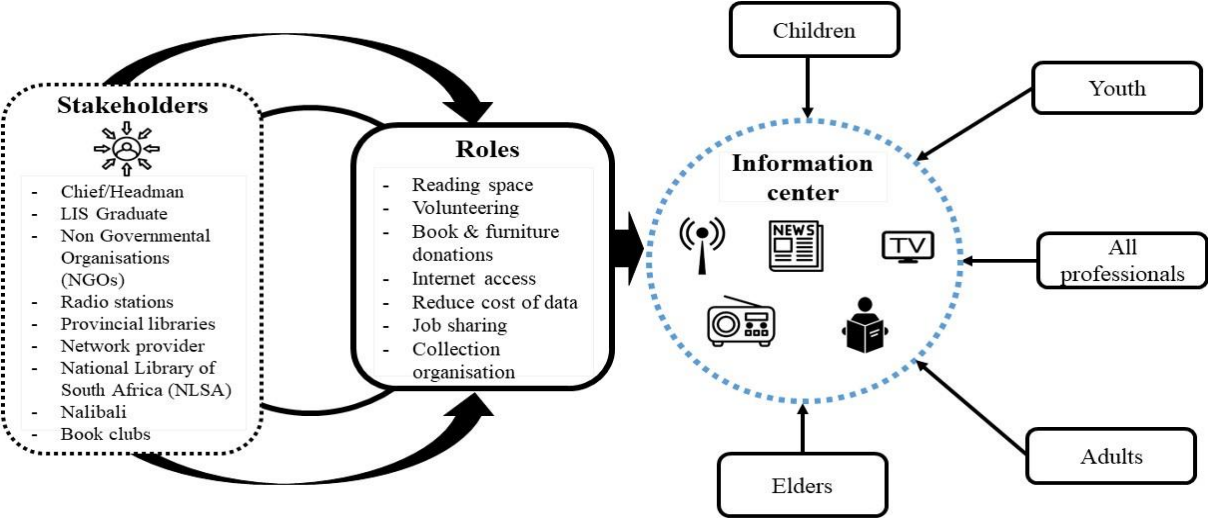


Figure 6.1: Framework for bridging the information services chasm (Synthesized by the researcher)

6.5.1 Functions of the role players in the model of bridging the information services chasm

The role players in the model for bridging the information services chasm are discussed as follows:

- **Village headman/chief**

By virtue of the authority vested in them, the chiefs and headmen are considered important stakeholders in the model for information provision as they are concerned about the welfare and development of their communities. The chief would help with providing space for an information centre as well as with sourcing funding from relevant authorities. The chief, or headman, is expected to work as a leader who should ensure that the community has access to information for the development of the village. The provision of reading space to construct a library will allow other stakeholders, such as NGOs and local shop owners, to donate materials that will serve as enablers to information access in the village. Materials such as essential documents, leaflets, bulletins, and newspapers can be made available and stored in the space provided by the headman. People travel to Bochum and Polokwane daily. In such instances, these people could be used as carriers of information leaflets, new information, newspapers, useful magazines, and other information sources that may be useful to other community members for the community centre. Items like catalogues from the shops can also be made available to the community members, and the volunteers at the community information centre can share these information materials with other community members in the villages. This mechanism can also work for updating information in the villages.

- **LIS graduates**

LIS graduates have a degree or diploma in Information Studies. In this model of information provision, LIS graduates can assess information needs and help people in rural communities with job applications on a volunteer basis, sourcing donations from NGOs, arranging donated sources in the information centre, and providing information services through the circulation of information sources. These graduates can also organise monthly thematic workshops to empower village members. For example, in September, they could organise a Heritage Day celebration, invite community members, and celebrate their heritage while reminding each other of healthy heritage foods.

As a result, LIS graduates will be able to function in a rural environment and make a meaningful contribution to the community. LIS graduates can work in a variety of economic sectors, including academic, archives and records management, information, libraries, and knowledge management (Ocholla & Shongwe, 2013:38). The LIS sector categories are shown in Table 6.1.

Table 6.1: LIS sector categories

LIS categories	Job titles
Academic	Lecturer, junior lecturer, graduate assistant
Archives and records	Archivist, records manager, records controller, records officer, documents officer, records and archives officer
Information	Information specialist, manager, analyst and officer
Library	Librarian (cataloguing, circulation, assistant, information, principal, IT, system and acquisitions)
Knowledge management	Knowledge manager, specialist, practitioner and officer

Source: Ocholla and Shongwe (2013:38)

Work Integrated Learning (WIL), in which students are placed in various libraries, is also required as part of the curriculum at LIS schools. WIL aims to expose students to the corporate world so that they can put their theoretical knowledge into practice. As a result, universities might think about putting students in the information centre.

LIS graduates can also initiate activities in the information centre, such as storytelling, which will help to Africanise information transfer in rural settings.

Other graduates in the village can also assist with job applications, promotion of the information centre, and workshop organisation. Graduates can also profile the community, as people's information needs change all the time. This would assist the information centre in meeting the village members' ever-changing information needs. These graduates can also set up computer literacy classes and teach others how to use computers. They can also encourage residents to form book clubs and compete in reading contests.

The LIS graduates will also be in charge of running the reading room. For information access, the centre will have television, radio, and newspapers. LIS graduates will work with radio stations, non-governmental organisations, and network providers to bring them on board.

- **Local taxi association**

Every day, local taxi drivers travel to town. They would assist the information centre with newspapers, particularly on Sundays when the City Press and Sunday World have job advertisement sections. These drivers would do so on a volunteer basis in order to keep the community up to date on current events. They could also consider raising taxi fares by 50 cents and using the money to purchase newspapers for the information centre. The relevant taxi association can also be approached and encouraged to donate to the information centre as a way of thanking the community for their support.

- **Non-governmental organisations**

These stakeholders in the information provision model may assist with donations as a way of giving back to the community. This, in turn, will help them sell their products. Their participation is viewed as a win-win situation. These organisations are located in communities that are said to benefit from information services. They are familiar with the needs of rural communities and can assist in selling the concept of public library services to relevant officials such as chiefs and community members at large. These stakeholders may be asked to contribute financially to the construction of libraries. These stakeholders, like private sector companies, will benefit from the community because they will be effective and will care for the needs of community members. Their names will be listed as having contributed to the creation of a new library.

- **Radio stations**

Participants in this study indicated that they relied on radio for information access. One of the participants stated that they can only listen to Thobela FM. Blouberg FM and Mohodi FM are two local radio stations in the municipality of Blouberg. It is just a shame that Blouberg FM is still

streaming, because listening to the radio requires internet access. This has a negative effect on the unemployed. Mohodi FM is preferable to Blouberg FM because it does not require internet access. Through outreach programmes, these radio stations can still contribute to closing the information services gap. They should also consider holding reading competitions in which schools in rural areas are given extracts to read and compete with others.

- **Book clubs**

Book clubs are viewed as one of the mechanisms for bridging the information services chasm and promoting reading culture in rural areas. To ensure information access in rural areas, the formation of book clubs may be considered. NGOs can provide funding to book clubs. This would aid in the development of the country. Willenberg (2018) agrees, stating that book clubs and improved library access will benefit those who can already read for meaning by providing more opportunities to practice the skills they already have (Willenberg 2018).

- **Network services providers**

Internet access is limited in rural areas due to poor network connectivity and the high cost of data bundles, which is exacerbated by high unemployment rates. All stakeholders involved in the establishment of book clubs in rural areas can approach these service providers and request subsidies on internet or data prices.

- **National Library of South Africa**

This stakeholder can assist in the organisation of book donations for the information centre.

- **Nal'ibali**

This stakeholder can assist with rural reading solutions. They can also aid in book donations.

- **Book donors**

Donors of books can assist by donating books to the information centre.

- **Provincial library services**

These are the well-established libraries that already serve the communities within the province's borders with information services. These libraries can assist in the development of policies and legislation for rural public libraries. The provincial library services are valued because they can provide ongoing training to staff in community information centres and assist in the preparation of proposals for private-sector donations. They can also lend some library materials to the rural information centre until it is self-sufficient. Public libraries, through their resources and qualified staff, facilitate community participation in information access. These libraries may also donate unwanted furniture to the information centre. Public libraries play an important role in gathering, organising, disseminating, and preserving community information. Librarians in these libraries can teach volunteers at the information centre how to provide community information services. The assumption has been that rural populations require libraries, among other things, to combat illiteracy. As a result, librarians from the Blouberg Municipality or the provincial office may assist volunteers in conforming to those in urban centres with standard information centres, shelves, and properly catalogued and classified books. These stakeholders can also encourage volunteers at information centres to follow UNESCO guidelines for information access and information service delivery.

The famous UNESCO seminar of 1953, known as the Ibadan Seminar 1953, set out the following objectives for public library service in Africa:

- To support and reinforce programmes of adult and fundamental education
- To provide effective services for children and young people, including requisite services for schools
- To provide the needed information and reference service
- To promote and stimulate reading for pleasure and recreation
- To provide, whenever needed, language groups in order to ensure availability of resources on equal terms to all members of the community (UNESCO 1953).

6.6 IMPLICATIONS FOR THEORY, SCHOLARSHIP AND PRAXIS

This study has the potential to promote the Africanisation of information shared in rural communities. This is because information centres can be used to share information in their native language, and the elderly are allowed in the centre to share their lived stories and folk tales. This can be achieved through the provision of reading spaces for rural dwellers to convene and share information in the form of oral history, since there are usually elderly people in the village who can share undocumented information with the younger generations. There could be storytelling that would help promote the culture of reading among children in the village. Ngoepe, Maluleka and Shekgola (2021) highlight that the establishment of storytelling in rural areas has the potential to promote a culture of readiness as students develop a passion for reading. It is through storytelling that the Africanisation of information transfer between the villagers can be ensured. According to Westenberg (2021), "Story is the greatest technology that humans have ever created." In the past, oral traditions were shared at night when people were seated around a fire having supper. These kinds of stories could be told at an information centre to ensure young people know their traditions.

Activities such as "diketo" in Sepedi, a term derived from the verb "go keta," which means knocking against something are important in educating kids. *Diketo* is a pebble game in which one stone is thrown into the air and the hand scoops the pebbles out of the hole as soon as the stone is in the air. Children learn to count by playing *diketo* and it also helps to measure dexterity. Another popular game in Bapedi is called "kgati," which translates to skipping rope, which has an impact on the health and wellness of children and can be integrated into the programmes organised at the information centre. Reading contests can also be held at the information centre. Children can be given the same story to read and then assessed to determine the reading abilities of the village children. Book clubs can also be formed in the village to share information.

6.7 SUGGESTION FOR FURTHER RESEARCH

The purpose of this study was to propose a framework for bridging the information services chasm in rural areas lacking public library facilities. This exploratory study focused on Taaiboschgroet village residents and Limpopo Province LIS experts.

Certain aspects, however, have not been fully addressed. As such, this section makes suggestions for future studies on information provision and access in rural settings.

This research was only conducted within the boundaries of Taaiboschgroet. Several villages in the Blouberg Municipality are located far away from the three available libraries. As a result, more research is required to determine information needs and how those needs are met in other villages.

This study excluded NGOs located within the boundaries of the Blouberg Municipality. As a result, it is suggested that additional research be conducted to determine their willingness to give back to the communities around them.

6.8 SUMMARY

This study explored the information services gap in rural areas lacking public library facilities. The intended target population included Taaiboschgroet village residents, who served as the primary population, as well as Limpopo LIS experts. Despite the fact that the primary respondents were interviewed one at a time, they all expressed similar concerns. However, the researcher noticed accord in their responses. Data were collected and analysed qualitatively. The study's objectives were met, and a framework for bridging the information services chasm was proposed based on the study's findings and a review of the literature. This study helped to close the information services gap in rural areas, which was the study's final objective.

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APPENDIX A

LETTER OF INTRODUCTION

Dear Participant

I am Mamotshabo Johanna Boloka, a doctoral student at the University of South Africa in the Department of Information Science. The purpose of this research is to develop a framework for bridging the information services chasm in a rural setting without library facilities.

You are kindly invited to participate in the study by means of interviews. I would appreciate it if you could spare a few minutes of your valuable time to answer all the questions. Rest assured that all your responses will be kept confidential and only used for the purpose of this research. In the final analysis, your opinions will contribute to the formulation of strategies that will lead to the creation of a bridge of information services chasm for the purpose of community development.

Thank you for your participation.

Yours faithfully,

Mamotshabo J Boloka (Doctoral Student) Student Number 57103550

APPENDIX B

PARTICIPANT'S CONSENT

I hereby give consent to the researcher to use the information contained in this document for the purpose of completing his research project, and that I will not be identified and my personal results will be kept confidential.

I understood the purpose of the research and my involvement in it.

My participation in this study is voluntary and I understood that I could withdraw from the research at any stage.

Participant's signature: _____

Date: _____

APPENDIX C

ETHICAL CLEARANCE LETTER

univc,ity
of south africa



“DEPARTMENT OF INFORMATION SCIENCE ETHICS REVIEW COMMITTEE

4 September 2019

Dear Ms Mamotshabo Johanna Boloka

Decision:

Ethics Approval from 4
September 2019 to 4
September 2024

DIS Registration#: Rec-040919

References#: 2019-DIS-0032

Name: MJ Boloka

Student#: 57103550

Researcher(s): Mamotshabo Johanna Boloka
57103550@mylife.unisa.ac.za
+23 32 08 110 105

Supervisor(s): Prof GV Jiyane
JiyaneG@unizulu.ac.za

The effects of unavailability of public library and information services in
Taaiboschgroet in the Blouberg Municipality in Limpopo Province,
South Africa.

Qualifications: Doctoral Study



University of South
Africa, Preller Street, Muckleneuk Ridge, City of
Tshwane, PO Box 392, UNISA 0003, South
Africa

Thank you for the application for research ethics clearance by the Unisa Department of Information Science Research Ethics Committee for the above-mentioned research. Ethics approval is granted for five years.

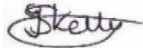
The *low risk application* was reviewed and expedited by the Department of Information Science Research Ethics Committee on 4 September 2019 in compliance with the Unisa Policy on Research Ethics and the Standards Operating Procedure on Research Ethics Risk Assessment. The proposed research may now commence with the provisions that:

1. The researcher(s) will ensure that the research project adheres to the values and principles expressed in the UNISA Policy of Research Ethics.
2. Any adverse circumstances arising in the undertaking of the research project that is relevant to the ethicality of the study should be communicated in writing to the Department of Information Science Ethics Review Committee.
3. The researcher(s) will conduct the study according to the methods and procedures set out in the approved application.
4. Any changes that can affect the study-related risks for the research participants, particularly in terms of assurances made with regards the protection of participants' privacy and the confidentiality of the data should be reported to the Committee in writing, accompanied by a progress report.
5. The researcher will ensure that the research project adheres to any applicable national legislation, professional codes of conduct, institutional guidelines and scientific standards relevant to the field of study. Adherence to the following South African legislation is important, if applicable: Protection of Personal Information Act, no. 4 of 2013; Children's Act no. 38 of 2005 and the National Health Act, no. 61 of 2003.
6. Only de-identified research data may be used for secondary research purposes in future on condition that the research objectives are similar to those of the original research. Secondary use of identifiable human research data requires additional ethics clearance.
7. No field work activities may continue after the expiry date of 4 September 2024. Submission of a completed research ethics progress report will constitute an application for renewal of Ethics Research Committee approval.

Note:

The reference number 2019-D/S-0032 should be clearly indicated on all forms of communication with the intended research participants, as well as the Committee.

Yours sincerely

A handwritten signature in cursive script, appearing to read 'Isabel', enclosed within a simple oval loop.

Dr Isabel Schellnack-Kelly
Department of Information Science: Ethics Committee"

APPENDIX D: INTERVIEW QUESTIONS

INTERVIEW SCHEDULE FOR COMMUNITY MEMBERS

Title: A framework for bridging information services chasm in a rural setting without library facilities

SECTION A: BIOGRAPHICAL DETAILS

1. Please indicate your gender

2. How old are you?

3. Please indicate your educational qualification

4. Please indicate your employment status

5. Please indicate your gross monthly income

SECTION B: INFORMATION RESOURCES IN A RURAL SETTING

6. What type of information do you need on a daily basis?

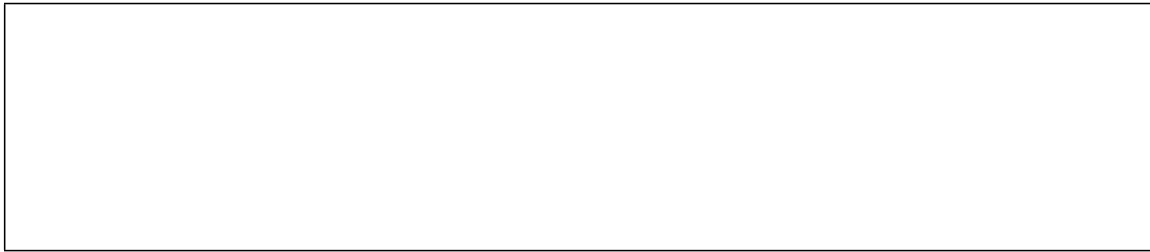
7. Where do you access it?

8. What resources are available in your community to access information?

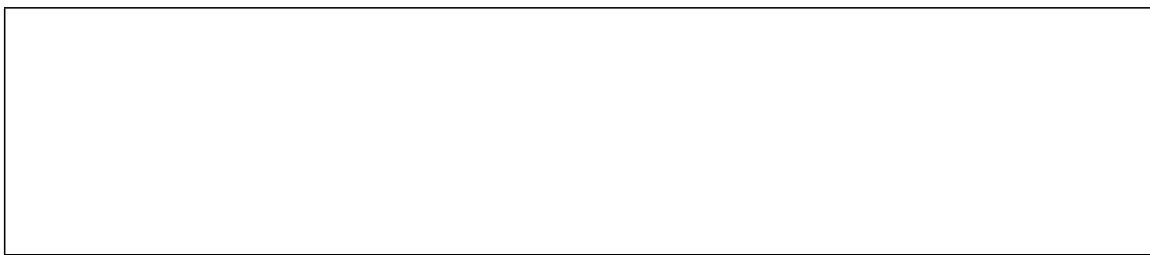
9. What is the role of the following institutions in ensuring people access information?

a. Churches

b. Royal house

An empty rectangular box with a thin black border, intended for a drawing or illustration related to the 'Royal house' category.

c. Municipalities

An empty rectangular box with a thin black border, intended for a drawing or illustration related to the 'Municipalities' category.

d. Stokvels

An empty rectangular box with a thin black border, intended for a drawing or illustration related to the 'Stokvels' category.

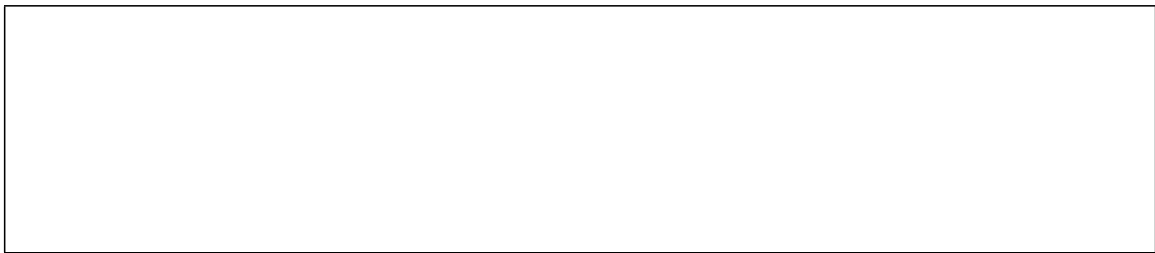
e. Schools

An empty rectangular box with a thin black border, intended for a drawing or illustration related to the 'Schools' category.

f. Local civic association



g. Women's' clubs



h. Burial societies



i. Mortuaries



j. Local government offices

--

k. Nearest libraries

--

l. Local shops

--

m. Local clinics

--

n. Courts of law

o. Community radio stations

p. Others, specify

--

SECTION C: ACCESSIBILITY OF INFORMATION RESOURCES IN A RURAL SETTING

10. How often do you access information? Please motivate your answer.

11. What do you do if you are unable to access information?

12. How accessible is the information in the village?

13. Which information sources do you have in your household?

14. What factors hinder access to information in your community?

15. What factors enables access for information

SECTION D: THE EFFECTS OF UNAVAILABILITY OF LIBRARIES TO RESIDENTS

16. There are three public libraries within Blouberg municipality, which are Eldorado, Senwabarwana and Alldays libraries. Have you ever visited any of these libraries and what was your impression on information access?

7. Which information sources are available in the nearest library?

18. How is the information in the nearest library impacting in your day to day lives?

19. How important would you say a public library could be in a village of yours?

20. What benefits do you think access to information from a library would be in your village?

21. In your view, do you see the Limpopo Province government doing its best in establishing new public libraries? Please motivate your answer.

SECTION E: FRAMEWORK TO BRIDGE INFORMATION CHASM

22. What do you suggest should be done to bridge the information services chasm in your village?

23. Any other information?

Thank you for your time!

APPENDIX E: INTERVIEW SCHEDULE (DELPHI TECHNIQUE)

A. ROUND 1

- In your view, which sources of information are available in rural settings? And how reliable and sufficient are they?
- With the shortage of library and information services in rural settings, what could be factors contributing to the shortage?

B. ROUND 2

- How is infrastructure for information sharing in rural communities?

C. ROUND 3

- How would the information services chasm be resolved in rural settings?