

AN EXPLORATION INTO THE INFLUENCE OF DIGITAL POP-UPS ON QUALITY OF LIFE



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DECLARATION

I, Tayla Diepenbroek (19014202) hereby declare that the Research Proposal submitted for the Bachelor of Commerce Honours in Strategic Brand Management degree to The Independent Institute of Education is my own work and has not previously been submitted to another University or Higher Education Institution for degree purposes.

Abstract

This research aimed to explore whether the implementation of the digital library in the informal settlement of Vastfontein has increased the literacy levels of the community and provided them with greater opportunities to improve their quality of life. Hence, the purpose of this research was to explore the influence that digital pop-ups have on quality of life in rural communities. This research used an exploratory research design, an interpretivism research paradigm and a qualitative research approach. Therefore, a non-probability sampling method was used, which was purposive sampling. This technique was relevant to this study as the research question was specifically concerned with the people who make regular use of the digital library and those people who specifically make use of the digital library for the purpose of learning and gaining information and literacy skills. The research uses a neighbourhood revitalisation (Habitat, 2018) and quality of life framework that is substantiated by Maslow's hierarchy of needs (2007) pyramid as a benchmark to assess potential changes in quality of life. The data collection method that was used in this research was semi-structured, in-depth interviews and then analysed using a thematic analysis in order to subjectively explore the influence of the digital library on the quality of life of the people living in the Vastfontein community. The research found that the implementation of the digital pop-ups in informal settlements have a positive impact on the quality of life of those people living in the community.

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1. Introduction

This research set out to understand and examine the influence that the implementation of digital pop-ups (Point of Presences for Unleashing Potential) in informal settlements has on the people living in those settlements. The research sets out the context and background of the phenomenon that was researched. The framework used as a benchmark to compare the findings was the Neighbourhood Revitalisation and quality of life framework. It discusses the research question and the literature that has been done in the area of interest and explains the research plan to be carried out in order to determine the influence that digital pop-ups have on the quality of life. This research used an exploratory design as the research is subjective, a qualitative research approach with an interpretivism paradigmatic view. In-depth interviews were conducted and analysed using a thematic analysis in order to induce the influence that the implementation of digital pop-ups have on informal settlements,

1.2 Context

Africa's Got Game is a for-profit organisation that produces and delivers infrastructure, software and other products that include education programs and outdoor gyms (Africa's Got Game, 2019). They focus on community upliftment by using their own funds and working with NGOs and other organisations, as part of the corporate social initiative programs, to implement pop-up (Point of Presences for Unleashing Potential) infrastructures to communities in need (Africa's Got Game, 2019). This is done by assessing the most pressing needs of a community and implementing the necessary infrastructure so as to ensure the maximum benefit is delivered. Africa's Got Game has implemented several different pop-ups across the country (Africa's Got Game, 2019). Some of these pop-ups include outdoor gyms, digital schools, solar-powered generators, playgrounds, malls and container classrooms. The pop-up that this study focused on is a digital library which is open to the members of the public who live in the Vastfontein community in Pretoria (Africa's Got Game, 2019).

Vastfontein is a rural community which is aiming to revitalise. The first step in the transition was the implementation of the school, with the digital library is the next step towards increasing the quality of life of the community members (Africa's Got Game,

2019). In rural communities such as this, people are often not offered opportunities such as education, employment, infrastructure and communications that may help improve their life situation (Joubert, 2018). Illiteracy is a contributing factor to poverty, as such better access to education platforms in rural areas are important in the continued development of the country and in decreasing poverty (Joubert, 2018).

There are many challenges to face when implementing such infrastructures into these communities. One of these is the decision of which technologies to implement and to what extent they should be developed (Joubert, 2018). Africa's Got Game has implemented technologies, which through studies, have shown to have the most educational value in facilitating skills development and knowledge transfer (Joubert, 2018). The implementation of these technologies helps to increase the literacy and education levels of the community members. Other factors play a role in the decision to implement these pop-ups into these rural communities. These considerations include affordability, maintainability, accessibility and ease of use (Joubert, 2018).

The aim of this research was to determine whether or not the implementation of the digital library increased literacy levels within the community and as a result, provide them with greater opportunities to improve their situations and therefore improve their quality of life.

1.3 Rationale

In brand management, it is important to understand the problems that face the country's population and where brands can help to make a difference in their community (Louw & Venter, 2011). Corporate social investment goes beyond the triple bottom line, which explains how organisations need to focus on not only their profits but the impact their organisation has on society and the environment (Louw & Venter, 2011). Today if a brand wants to compete, they need to become a meaningful brand that has values and a purpose and hold true to that purpose in all their operations (Louw & Venter, 2011). Today's consumers are looking for brands with which they can resonate and build a relationship with. These relationships are what encourages consumers to take action and become a loyal customer of the brand (Louw & Venter, 2011). CSI is a way in which brands can give back to the community in an area that is in line with their values and in line with what their customers believe in (Louw & Venter,

2011). This helps the consumer buy into the brand's purpose and creates a relationship between the brand and the consumer (Louw & Venter, 2011).

Brands must understand the influences that such infrastructure implementations have on communities in order to decide whether the CSI initiative is appropriate for the brand to invest in and whether it aligns with their purpose (Louw & Venter, 2011). In this study, determining the influence that the digital library has on the quality of life of the people living in the Vastfontein community determines whether a brand or organisation should invest in Africa's Got Game's projects as part of their CSI initiatives as education in South Africa is a cause that many customers can align with.

1.4 Problem Statement

While South Africa demonstrates a 95% literacy rate, which is comparatively high when compared to other countries across Africa, there is a large disparity between literacy levels among different generations, across genders and across races (Roser & Ortiz-Ospina, 2018). UNESCO statistics show that the older generation has lower literacy levels than the younger ages groups and people living in informal rural settlements have lower literacy levels than those living in more urban areas of South Africa (Roser & Ortiz-Ospina, 2018). There are many reasons for the literacy gaps and these include apartheid government laws about education and what different races were allowed to learn (Masilonyana, 2016). The knock-on effect of these policies resulted in difficulties for children and adults living in informal settlement to gain equal opportunity to acquire an education as they lack the exposure to resources and learning tools (Masilonyana, 2016). Increased literacy levels can influence the opportunities for people to improve their lives and therefore can help to improve quality of life (Ukachi, 2015).

1.5 Purpose Statement

South Africa is working on transitioning into a world of education equality across races and genders (Roser & Ortiz-Ospina, 2018). This has been an ongoing process since the move towards democracy and government implementing rights-based education (Becker, et al., 2015). The literacy gaps between the advantaged and the disadvantaged across the country is a problem as it hinders the ability the minimise

the equality gap (Becker, et al., 2015). Those living in informal settlements have limited access to learning tools, education and other resources. This makes it difficult for them to improve their current situations and gives them limited opportunities to improve their quality of life (Joubert, 2018). Therefore, this research aimed to explore whether the implementation of the digital library in the informal settlement of Vastfontein has increased the literacy levels of the community and provided them with greater opportunities to improve their quality of life. Hence, the purpose of this research was to explore the influence that digital pop-ups have on quality of life in rural communities.

1.6 Research Questions

Primary research question:

Does the implementation of digital pop-ups, in the form of a digital library influence quality of life for community members in informal settlements, such as the Vastfontein community?

Secondary research questions:

- Does the implementation of the digital library in the community influence education and literacy levels of the community members?
- Does the implementation of a digital library influence the sense of community among community members?
 - Literature has shown that increased access to technology, such as cell phones has increased the sociability and sense of community within informal settlements (Velghe, 2014). This hypothesis must be tested in the context of technology in the form of digital pop-ups.
- Does the implementation of the digital library in the community influence economic opportunities?

1.7 Research objectives

- To explore the influence of increased access to technology, offered by the digital library Africa's Got Game has implemented in the Vastfontein community, has on the quality of life for the people making use of the library.
- To explore the influence that increased access to technology and resources has on the education and literacy levels of those people who make use of the digital library.
- To explore the influence that the digital library has on the social aspects of the community.
- To explore the influence of potential economic opportunities created by the digital library on the quality of life of the people making use of the library in the Vastfontein community.
- To explore the degree of impact that these digital pop-ups have on a community, and thus determine the viability of such corporate social investments.
- To provide tangible evidence of the impact these corporate social investment initiatives have, and thus allow brands to quantify the impact they are having.

2. Literature Review

This literature review examines the state of literacy in the world and focuses on the literacy levels in rural areas of South Africa including the influence of technology on literacy levels and learning abilities. It explores African innovations and how an innovation such as a digital library can play a pivotal role in improving quality of life. It discusses the factors which influence quality of life as suggested by the selected frameworks and how the access to technology has influenced these factors in the past.

Literacy, being the ability to read and write, is a key factor in measuring the education of a population (Roser & Ortiz-Ospina, 2018). Global literacy levels have risen and continue to rise by four percent every five years for the past sixty-five years (Roser & Ortiz-Ospina, 2018). In 2015, only seventeen percent of the global population remains illiterate (Roser & Ortiz-Ospina, 2018). This progression is due to increased expansion of basic education across the globe and continued work to decrease the inequalities in education across different demographics (Roser & Ortiz-Ospina, 2018).

Comparatively, African countries show significantly lower literacy rates (Roser & Ortiz-Ospina, 2018). While there are substantial differences between Africa and the rest of the world, South Africa showed a ninety-five percent literacy level in 2015 (Roser & Ortiz-Ospina, 2018). The increased literacy rates across the globe are due to the increased number of youth learning to read and write and being exposed to the opportunities at a younger age (Roser & Ortiz-Ospina, 2018). According to UNESCO data, there is a significant gap between the literacy levels of different generations. In South Africa, the size of this gap is seen as 99% of youths (age 15-24) are literate, while 71% of the older generation (65+) are literate (Roser & Ortiz-Ospina, 2018).

Studies on numeracy and literacy levels across the globe have shown that South African pupils perform less satisfactorily than pupils in the rest of the world (Pretorius & Naude, 2010). Literacy levels in South Africa differ between informal and formal settlements. Children in informal areas are less prepared for formal education than those in urban areas (Pretorius & Naude, 2010). One of the reasons for this is that these children are less exposed to reading and writing opportunities due to the lack of parental support and involvement (Pretorius & Naude, 2010). This means that it is more difficult and less likely that these pupils will perform to the required standards at school.

In the same way, there is a difference in literacy levels among adults living in informal settlements and rural areas compared to those living in urban areas. This can be seen as an after-effect of apartheid and the Bantu Education system which restricted the learning of black South Africans (Masilonyana, 2016). These people have less access to technology and opportunities to lift themselves and their families out of poverty due to their limited education levels (Joubert, 2018).

Access to technology is a way in which people can gain knowledge and be exposed to learning tools (Velghe, 2014). Literacy increases through the use of technology (Ukachi, 2015). The increased use of cell phones in informal settlements has increased the exposure of adults living in these communities to learning tools (Velghe, 2014). Ethnographic studies in rural communities in Cape Town have shown that illiterate and low-literate people have gained access to these informal education tools and through becoming cell phone literate have increased competency in informal learning (Velghe, 2014). This shows that increased exposure to learning tools can

potentially improve an individual's literacy levels. This has also shown that this kind of informal learning can be a social form of learning where individuals with greater knowledge can effectively teach those with less knowledge and literacy (Velghe, 2014). This increases the social aspects of learning in informal settlements and improves the sense of community.

African innovation is a broad term and the understanding of the meaning of African innovation can vary greatly. African innovation can be seen as an innovation that has been created by an African to benefit the lives of people in Africa. They can include technology, start-up organisations or other programs (Disrupting Africa, 2019) Looking at innovations in the literacy and education, there is an organisation called Africa's Got Game, that works with NGOs and other companies to implement pop-up developments which are "Point of Presences for Unleashing Potential" (Africa's Got Game, 2019) into informal areas that are in need of their innovations (Africa's Got Game, 2019). They implement digital pop-up infrastructures that are specific to the needs of the community. One pop-up is in the form of a digital library in the Vastfontein community. The library is open to all the members of the community and allows them access to e-Learning tools, the latest technologies and other resources which can develop further literacy skills and potentially aid them in career opportunities (Joubert, 2018).

Studies done in Nigeria show that increased literacy levels through the exposure to gadgets and smartphones have a positive influence on the quality of life of people living in informal settlements (Ukachi, 2015).

Quality of life is a concept of importance to the research as it is a framework that is influenced by education and literacy levels and the knock-on effects of these. It is a concept that is difficult to define as there are many different opinions and researchers are yet to come to a consensus (Barcaccia, et al., 2013). It is considered that quality of life is determined rather through ethical analysis of the given situation (Barcaccia, et al., 2013). A definition by Feinstein in 1987, states that "quality of life often seems to be an umbrella term, covering a variety of concepts, such as functioning, health status, perceptions, life conditions, behaviour, happiness, lifestyle, symptoms, etc" (Moons, et al., 2006). Ashing-Giwa theoretical model includes culture as one of the concepts that influences quality of life. It states that beyond Feinstein's definition,

people also search for a sense of safety and well-being, integrity, meaning in the lives and a feeling of belonging socially (Barcaccia, et al., 2013). These are the factors that relate quality of life to Maslow's hierarchy of needs model. Maslow's hierarchy of needs and the Neighbourhood revitalisation and quality of life framework are used together to assess the influences on quality of life and are discussed in detail in the theoretical framework section.

2.1 A conceptualisation of Key Concepts

Key Concept 1: Digital pop-ups

Africa's Got Game is a for-profit organisation that uses funds and funds raised to implement digital hubs into informal settlements in need of them (Africa's Got Game, 2019). These Digital pop-ups include a number of different forms of digital hubs including schools, classrooms and malls. The focus of this research is on the digital library which grants access to e-learning tools, technology and other resources (Africa's Got Game, 2019).

Key Concept 2: Informal settlements

According to the World Health Organisation, Informal settlements are areas where the housing does not conform to building regulations and unplanned settlement grids. This research looks at the Vastfontein community in Pretoria that meets these criteria as this is a community moving towards revitalisation and the steps they have taken towards this include the implementation of a school and of an Africa's Got Game digital library.

Key Concept 3: Literacy

Literacy refers to the ability to read and write and in the context of this research refers to the ability to learn (Roser & Ortiz-Ospina, 2018).

Key Concept 4: Quality of Life

Quality of life refers to the way in which an individual perceives life. It is determined by their values, beliefs, cultural norms and societal norms and is a construct that does not have a numerical value but is based on individual perceptions (Barcaccia, et al., 2013). This concept is illustrated through Maslow's hierarchy of needs pyramid and

the research focuses on the specific needs include in the pyramid to assess the changes in quality of life.

2.2 Theoretical Framework

The theoretical framework is a model that supports the theory of the research, as it acts as a benchmark to which the research findings can be compared (Cohen, et al., 2005). The framework that was used as a benchmark for this study is a neighbourhood revitalisation and quality of life model developed by *Habitat for Humanity*. This model is compared with Maslow's hierarchy of needs pyramid in order to provide evidence that the factors that discussed in this framework do influence quality of life.

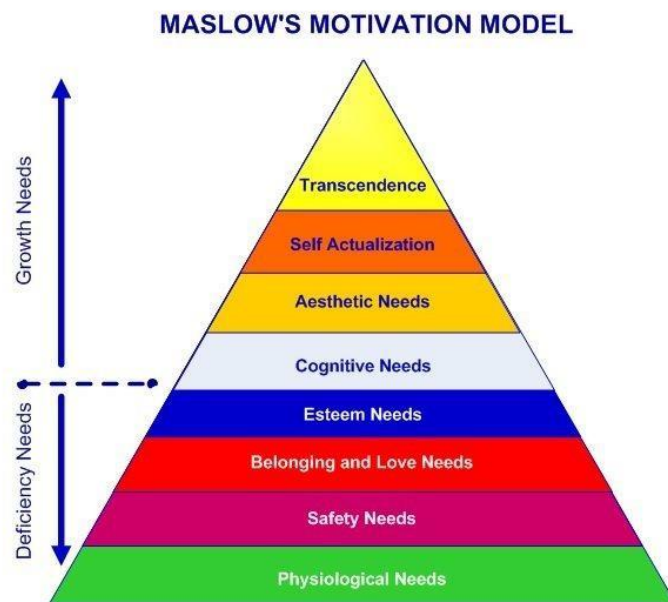


Figure 1. Maslow's Hierarchy of Needs Pyramid (Mcleod, 2007)

Maslow's hierarchy of needs (2007) is based on the belief that individuals were more motivated by the pursuit of meeting certain needs rather than of obtaining rewards (Mcleod, 2007).

Maslow stated that as a person fulfils and reaches one need, they then move on to fulfil the next need in the hierarchy and this continues until they meet a point of self-actualisation (Mcleod, 2007). This eight-level pyramid is the model that will be used as a framework to understand the quality of life in the study.

The most basic human needs sit as the base of the pyramid. This is the largest section as it has the largest group of people striving towards meeting their everyday needs in the world (Mcleod, 2007). The basic needs at the bottom of the pyramid are physiological needs, safety needs, social needs and esteem needs. Physiological needs are food, water, air to breathe, warmth, sex and shelter (Mcleod, 2007). These are the needs at the very bottom of the pyramid. These lower order needs are the needs that are influenced by the implementation of the digital pop-ups, as increased access to technology and learning tools can greatly impact on these needs. The next level up on the pyramid is the safety needs, these are: security, laws, being free from fear, having stability and having protection from the environmental elements (Mcleod, 2007). The third level of the hierarchy of needs pyramid is social needs. This is the need for an individual to feel a sense of belonging and love in a relationship, be it from a romantic relationship, a workgroup, family or friends (Mcleod, 2007). Esteem needs are the next level of basic needs on the pyramid. These include the individual's need to feel a sense of independence and achievement, to feel as if they deserve respect from others and themselves, as well as a sense of status and prestige (Mcleod, 2007). These basic needs when unmet drives the individual's motivation. As the need continues to be unmet, the greater the motivation the reach them becomes, as these are needs which an individual cannot live without for extended periods of time (Mcleod, 2007). In order for an individual to move up the pyramid to achieve higher-order needs, these basic needs must be met (Mcleod, 2007).

The pyramid then moves to higher-order needs which are; cognitive needs, aesthetic needs, self-actualisation needs and transcendence needs. The lowest level of these needs is cognitive needs which refer to the need for knowledge and meaning (Mcleod, 2007). Aesthetic needs refer to searching and having an appreciation for beauty (Mcleod, 2007). Self-actualisation means realising one's personal potential and seeking personal growth. Maslow stated that it is the self-actualisation which ultimately motivates all individuals. It is a constant motivator and a continual process as self-actualisation is not a final state that can be met but rather a continuous improvement of one's self (Mcleod, 2007). At the top of the pyramid is transcendence needs and these are the needs of an individual to help those around them (Mcleod, 2007).

Maslow believed that every person has the desire to move up the pyramid and reach self-actualisation but many are held back due to the inability to attain the lower-level needs (Mcleod, 2007).

Quality of life can be understood as the way in which the individual perceives their lives and their position in life given the cultural context or by their value systems (Mcleod, 2007). It includes physical and mental health, relationships, level of independence and personal income (Susniene & Jurkauskas, 2009). These are factors included in Maslow's hierarchy of needs and therefore the hierarchy of needs is suitable to use as a framework to understand the quality of life.

Up to a certain level of income earned, there is a correlation between the quality of life and income (Drakopoulos & Grimani, 2013). At the lower levels of disposable income, it is found that the greater the income the greater an individual's happiness. This is at the level which an individual is striving to obtain the basic needs of the pyramid. At the higher levels of the pyramid and therefore the higher levels of income the relationship becomes less significant as the individual begins to strive for non-basic needs (Drakopoulos & Grimani, 2013).

This study looks at the influence that digital pop-ups have on the quality of life. It focuses on the influence that the exposure to technologies, information and learning tools, in the form of the digital library has on literacy levels in the Vastfontein community. This implies that the study focuses on the lower order needs of the pyramid.

The goal of the Neighbourhood revitalisation model is to demonstrate insights into how to revitalise a neighbourhood, what factors need to be considered in order to revitalise a neighbourhood and ultimately the factors which will improve the quality of life of those living in the neighbourhood (Habitat, 2018).

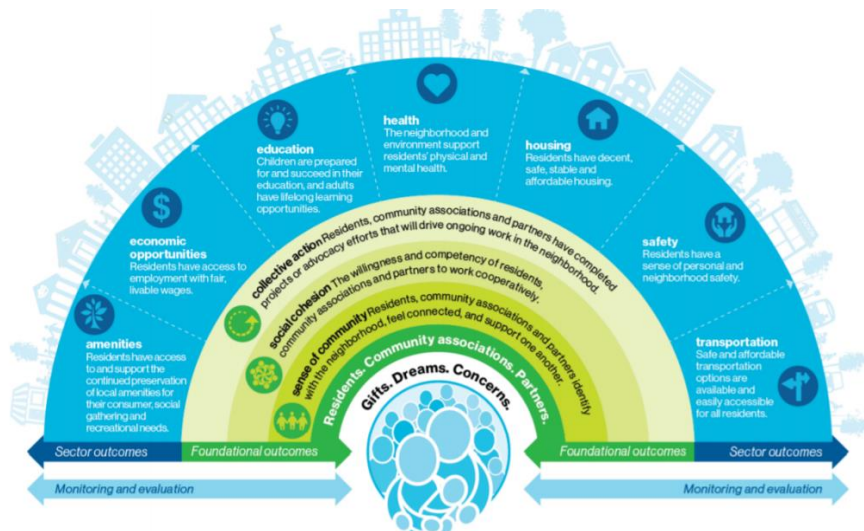


Figure 2. Neighbourhood Revitalisation and Quality of Life Framework (Habitat, 2018, p.1)

The model states that the first factor at the centre of neighbourhood revitalisation is the community understanding the goals and concerns of the other community members (Habitat, 2018). The model then moves outward from the centre as the revitalisation takes place. The next step outward involves building a strong sense of community in the neighbourhood (Habitat, 2018). This is similar to the level of Maslow's hierarchy of needs pyramid as it relates to the lower order need to feel a sense of belonging and love described by Maslow. This is an area relevant to the study as literature has shown increased access to technology to improve literacy increases a sense of socialisation in the community and improves communication (Velghe, 2014). The last internal level is the collective action of community members and partners to continually drive projects and work in the community (Habitat, 2018). These foundations lead to sector outcomes which ultimately influence the quality of life of the community and can be used as indicators to establish variations in the quality of life. These outcomes include amenities, economic opportunities, education, health, housing, safety and transportation (Habitat, 2018). Many of these overlap with the basic, lower-order needs of Maslow's Hierarchy of needs pyramid which speaks to the relevance of this model to establish the influence of quality of life. The outcomes that this study will focus on are economic opportunities and education as these are the factors that increased literacy levels can influence. Therefore, this model is relevant to

this study as it acts as a benchmark to compare the changes in quality of life that occur with the implementation of the digital library in the Vastfontein community.

3. Research Methodology

Research methodology refers to the tools used by researchers to gather data and the procedures to collect and analyse the data about a particular phenomenon (Maree, 2016). This section will discuss the research design used and discuss the paradigm and approach that was used in this research in terms of appropriateness and relevance to the research. This research used an exploratory research design, interpretivism research paradigm and a qualitative research approach.

3.1 Research Design

Research design is made up of the methods used to collect data, the methodology and the theory behind the research (Maree, 2016). This research used an exploratory design as the research is subjective, qualitative and seeks to gain insights into participants' experiences (Maree, 2016). This research design is used often in qualitative research where there is little knowledge of a situation and the objective is to gain a greater understanding of the situation by identifying key issues and variables (Maree, 2016). The aim of this research was to explore the influence of the digital library on quality of life by attempting to gain a better understanding of how the increased access to technology and learning tools influences the lives of the people living in the Vastfontein community.

This research uses a neighbourhood revitalisation (Habitat, 2018) and quality of life framework that is substantiated by Maslow's hierarchy of needs (2007) pyramid as a benchmark to assess potential changes in quality of life. This is not a fixed framework that defines results but rather works to build further understanding into aspects that influence the quality of life. Exploratory research does not always use fixed frameworks as gaining further understanding of a phenomenon are of greater relevance to the specific research design (Maree, 2016). This makes an exploratory research design relevant to this research.

3.1.1 Research Paradigm

A paradigm is a way in which a phenomenon is viewed based on a cluster of beliefs (Maree, 2016). Before the research took place, it was important to first have an understanding of the way in which the world was viewed during the research process as paradigms influence what was researched, how data regarding a phenomenon was captured, studied and interpreted (Cohen, et al., 2005). Paradigms help to distinguish this as they are philosophical assumptions about the way the world is viewed as seen through the following categories; ontology, epistemology, methodology, meta-theory and axiology (Cohen, et al., 2005).

The paradigm used in this research was interpretivism, as the focus of this paradigm is on gaining understanding (Hall, et al., 2013). The research aimed to gain an in-depth understanding of a group of people living in the Vastfontein area who make use of the digital library and their quality of life.

Ontology focuses on the two different views of social reality namely; the realist stance and the nominalist stance. The first looks at whether social reality comes from the external and the second stance holds that social reality comes from within the individual (Cohen, et al., 2005). Interpretivism believes that there are multiple realities brought about by social context (Maree, 2016). This was appropriate for this research as context plays a vital role in understanding changes and influences in quality of life. There are no fixed measurements to determine changes in quality of life, instead, the context was examined to determine whether there have been improvements.

Epistemology is the theory of knowledge and looks at the way of knowing and how knowledge is obtained (Cohen, et al., 2005). Interpretivism's epistemological view is that knowledge can be derived from an empathetic understanding (Cohen, et al., 2005). This was relevant to this study as it aimed to gain an understanding of the changes in quality of life through observing the influence that the digital library has on literacy levels in the Vastfontein community rather than gaining knowledge through observations based on fixed rules and regulations.

Meta-theory refers to the objective or subjective nature of the research (Cohen, et al., 2005). Interpretivism is subjective and tells a story. The researcher is immersed in the research in order to empathise (Cohen, et al., 2005). This research required subjective observations in order to determine the influence of digital pop-ups on quality of life as

there are no accurate measurement tools to measure the quality of life that would provide for objective observations.

The methodology is significantly influenced by paradigms (Cohen, et al., 2005). The idiographic approach attempts to focus on understanding the behaviour of the individual without placing focus on laws (Cohen, et al., 2005). The research collected qualitative data, which speaks to the interpretivism paradigm that was used. This was due to the empathetic nature of the study which attempted to understand the quality of life of the individual subjectively and the influences to quality of life that increased exposure to technology has on literacy levels rather than examine fixed laws. The research aimed to understand how this influences the quality of life in the informal settlement.

Axiology looks at value systems (Saunders, et al., 2009). It is the study of the nature of value and valuable things. It suggests different levels of importance of values (Saunders, et al., 2009). The importance of values was shown when using an interpretivism paradigmatic approach where the researcher was immersed in the study and used subjectivity to establish the influence of digital pop-ups on quality of life (Saunders, et al., 2009). Understanding of the values of the community being observed is critical in understanding changes in their quality of life and therefore values influence the results of this research. This research places a large importance on values.

The interpretivism paradigm was appropriate for this study as the research aimed at gaining an understanding of the quality of life in the context of the people living in the Vastfontein community. The research aimed to gain an understanding and explored how increased literacy levels and access to learning tools and technology influences their quality of life. This understanding involved being immersed in the lives of the community members and using empathy in the analysis of the situation (Maree, 2016). Empathetic understanding results in a subjective research design that was strongly influenced by the experience of the researcher and the researcher's values (Maree, 2016). It was essential to consider the context of this study as the research looked specifically at informal, rural communities and the results of experiences found in these areas would differ greatly from those gathered in urban areas. The research was, therefore, context-dependent and what was real was determined by social constructs.

3.1.2 Research Approach

A Research approach is the methods used by the researcher to collect and analyse data and interpret the information collected (Maree, 2016). A qualitative research approach was used for this study as it attempted to gain an understanding rather than to collect statistical data (Maree, 2016). The subjective nature of this study meant that numerical values did not hold importance as the changes in quality of life are based on the values of the researcher and the community being researched (Maree, 2016).

The qualitative research approach includes many of the same characteristics included in the interpretivism paradigm (Maree, 2016). This research placed importance on values as determined through the context of those interviewed, making the information gathered subjective in nature. It focused on understandings rather than laws and did not rely on a fixed measure to make inferences. These are characteristics of a qualitative research approach (Maree, 2016). This research relied on gaining an understanding into the values of the community and its context in order to explore the influence that the digital library has on literacy levels and therefore its influence on the quality of life. Quality of life is a framework that does not consist of numerical measures and so a qualitative approach was the most appropriate for this research (Habitat, 2018).

4. Research Plan

This research plan demonstrates the population parameters and justifies the sampling decisions as well as the data collection and analysis tools used in the research. The research made use of non-probability sampling methods and a purposive sampling technique.

Population and Unit of Analysis

In research, population refers to the total group of people or from whom the appropriate information is gathered (Wiid & Diggines, 2013). There are two types of populations in research, these are targeted populations and accessible populations (Bryman & Bell, 2015). The target population is the theoretical population and refers to the entire group of people. This group of people have varying characteristics and are the people which

researchers are aiming to make generalisations about (Bryman & Bell, 2015). The accessible population is the population from which researchers draw their sample (Bryman & Bell, 2015). It is a population made up of the target population and is the population to which the conclusions of the research apply (Bryman & Bell, 2015). There are three parameters used to distinguish between the target population and the accessible population (Bryman & Bell, 2015). These include the nature of the population, the unique characteristics and the size of the population (Bryman & Bell, 2015).

The Nature of the population is the unit of analysis (Bryman & Bell, 2015). In this research, the unit of analysis was people as the study consisted of questions that are targeted at people within the community in order to gain an understanding of how they have been influenced by the digital library. These people were required to gather the relevant information needed in order to answer the research question (Maree, 2016).

Unique characteristics of the people using the digital library: People who were living in the Vastfontein informal community, they regularly accessed the digital library, over the age of 18, who characteristically wanted to improve their quality of life and increase their learning and education.

The target population included all the people that fall into the population parameters (Bryman & Bell, 2015). Therefore, this included all of the people living in the Vastfontein geographical area.

Accessible population includes only the people within the population parameters that could have been included in the study (Pascoe, 2016). This segment of the population included those who matched the unique characteristics (Pascoe, 2016). Therefore, these were the people who accessed the library regularly with the willingness to improve their education.

4.1 Sampling

Sampling was used as it is not be possible to include an entire population in the research due to the cost and time restrictions of research projects (Maree, 2016). The sample that was selected is a subgroup of the larger population and was used to learn and make generalisations about the population (Maree, 2016). This is why it was

essential to ensure that the sampling methods used resulted in valid conclusions that can be applied across the population (Maree, 2016). The sample needed to include the characteristics stipulated in the accessible population (Pascoe, 2016). Therefore, the sample included three people who live in the Vastfontein community, who make regular use of the digital library and are willing to improve their education.

This research used a non-probability sampling method. This was due to the exploratory design of the research. In the research, it would have been difficult to gain access to the entire group of people who make use of the digital library in the Vastfontein community. Non-probability sampling is often used when there are limitations for the researcher, such as limited time and financial resources, as well as difficulty accessing the population (Maree, 2016).

Non-probability sampling does not make use of random selection and this makes it difficult to apply conclusions to entire populations and to make generalisations (Maree, 2016). Non-probability is when each unit in the population does not have an equal chance of being selected. However, the units that were selected still adhere to the population parameters (Pascoe, 2016).

There are four types of non-probability sampling. The most appropriate sampling method for the research was purposive sampling. Purposive sampling is done when there is a specific purpose to the research, where the researcher needs to target specific people based on the question to be answered (Maree, 2016). These units of the population have certain characteristics that were needed to answer the research question (Maree, 2016). This technique was relevant to this study as the research question was specifically concerned with the people who make regular use of the digital library and those people who specifically make use of the digital library for the purpose of learning and gaining information and literacy skills rather than those who are making use of the digital library for leisure.

4.2 Data collection

Data collection is a way in which a researcher can gain insights into a phenomenon by gathering information about the area of study (Research Methodology, 2019). Due to the nature of the research following an interpretivism paradigm, a qualitative data collection tool was used in order to align with the exploratory design of the research

and gain understandings of the phenomenon being explored (Bryman & Bell, 2015). The data collection method that was used in this research was semi-structured, in-depth interviews as this is a tool that was used to subjectively explore the influence of the digital library on the quality of life of the people living in the Vastfontein community.

In-depth interviews are important tools for researchers as they allow the researcher to understand the respondents' point of view and language and tone can be used to convey meaning (Ritchie & Lewis, 2003). Language was an important factor to consider in this research as Vastfontein is a community that has a mixture of cultures and languages living in one community. With the improvements and new schools in place, the children of the community are receiving a higher quality education and children are learning in English, but the older generations are previously disadvantaged and there could have been difficulty in communication and understanding. In-depth interviews help to counteract this problem as misunderstandings can be identified, questions can be rephrased and translators and tools can help to understand and convey meaning.

In-depth interviews can be seen as conversational and encourage normal social human interaction (Ritchie & Lewis, 2003). In-depth interviews are suitable for research that requires few respondents to acquire in-depth accounts of their beliefs, experiences and opinions in order to derive insights into the phenomenon being researched (Boyce & Neale, 2006). This was relevant to this study as the study aimed to gain insight through understanding the experience of the people in the Vastfontein community, who use the digital library, in order to establish the influence that the digital pop-ups have in their lives. These insights then lead to inferences on how the digital pop-ups influence the quality of life of the people in the Vastfontein community. In-depth interviews allow respondents to answer questions openly and honestly in a way that they might not feel comfortable doing in a group, such as a focus group (Boyce & Neale, 2006). The interviews were conducted in closed, private rooms in order for the participants to feel comfortable and able to speak freely in their environment, with no outside influences. In-depth interviews allow for more detailed responses than questionnaires or surveys and they allow the researcher to probe areas of particular interest to gain new insights (Boyce & Neale, 2006).

By understanding the subjective views of the participants, context was provided to the insights that were made from their responses in order to understand the influences that the digital library has on their quality of life. This goes further into the deeper perception of the participants, giving greater emphasis on feelings and subsequent behaviours.

Data collection, first required permission from the librarian had to be gained to conduct the in-depth interviews within the library with the people who are making use of the digital library in the Vastfontein community. After obtaining permission, in-depth interviews with three respondents from the sample were conducted. Each respondent signed a consent form and interviews of fifteen minutes took place. Interviews were recorded on two devices.

4.3 Data analysis method

Data analysis involves sorting, selecting, organising and assigning meaning to the data collected in order to provide an understanding of the information (Maguire & Delahunt, 2017). Thematic data analysis is a technique that identifies patterns in qualitative data (Maguire & Delahunt, 2017). Common themes were identified and then analysed using Braun and Clark's 6-step framework (Maguire & Delahunt, 2017). This framework is used commonly as it is a clear approach to analysing the data (Maguire & Delahunt, 2017).

The six steps are explained:

Step 1 is to become familiar with the data. This involves reading the transcripts of the interviews several times in order to become familiar with the data that has been recorded (Maguire & Delahunt, 2017).

Step 2 is to generate initial codes. This involves organising the data in a meaningful way (Maguire & Delahunt, 2017).

Step 3 is to search for themes. The theme is a pattern that demonstrates interesting information relevant to the research question (Maguire & Delahunt, 2017).

Step 4 is to review themes. Further develop the initial themes determined in step 3 (Maguire & Delahunt, 2017).

Step 5 is to define the themes. Refine the theme to establish the overall essence of what the theme is about (Maguire & Delahunt, 2017).

Step 6 is to write -up. Write a report (Maguire & Delahunt, 2017).

This research is qualitative in nature and looked to acquire an in-depth understanding of the influence that increased access to learning tools, technology and resources has on literacy levels and therefore on quality of life. The data collection method used did not result in numerical data but rather recorded potential patterns that influence the quality of life of the respondents. Therefore, a thematic data analysis was used to explore the influence of the digital library on quality of life.

5. Findings and Interpretation of Themes

In this section findings of the research are presented and interpreted. As explained in the previous section, the data is analysed using thematic analysis whereby themes and patterns are identified within the data set (Maguire & Delahunt, 2017). Common themes are identified and then analysed using Braun and Clark's 6-step framework (Maguire & Delahunt, 2017). The 6-step framework is previously explained. The themes identified are elements which can influence the quality of life, as demonstrated by Maslow's hierarchy of needs (2016) and the Neighbourhood revitalisation and quality of life framework (Habitat, 2018). The themes are discussed and related back to the literature review, theory and the presented research questions.

Major themes that arose from the three in-depth interviews that were conducted among the people who make use of the digital library in the Vastfontein community include: feelings about the digital library; the digital library and literacy; the digital library and socialisation; the digital library and economic opportunity. In this section each theme is defined and discussed in relation to the meaning of the finding and how it relates to the research objectives.

5.1 Findings and Interpretation of Themes

Theme 1: Feelings about the digital library

This theme includes the emotional responses and attitudes of the participants with respect to the digital libraries. Acceptance, mental and physical health as well as the feeling of safety, as basic needs are important to quality of life and were identified as common feelings impacted by the implementation of the library. Amongst all the participants a common factor was that people feel like the digital library is safe as there are always other people around. Theme 1 refers back to the objective to explore to the factors that are influenced by the implementation of the digital library and how they might be contributing factors to quality of life for the people making use of the digital library in the Vastfontein community.

Participant 1: "I feel like the library is very safe and there are always some other people there up until closing time."

Using the digital library facility for fun activities (such as puzzles, games or social media) or for learning new skills that can be used to develop hobbies influence the mental health of those using the digital library.

Participant 3: "I also enjoy puzzles, sudoku is my favourite", "I access mostly written articles but love YouTube when learning a new crochet stitch."

Another example that a participant shared was using the facility to learn about better eating options helps to improve knowledge about diet and therefore, increases healthy living.

Participant 3: "We looked up new recipes to help with eating the right food for arthritis pain."

Acceptance is a commonly found attitude towards the digital library. The digital library is often busy and participants state that there are always other people making use of the library. The library is very popular. When asked about the acceptance of the community of the library, all the participants said that it was well valued by the community.

Participant 3: "I love it and I think that the rest of the community enjoy it too."

Participant 1: "I think the people in the community love that they have access to this facility."

Interpretation of theme 1: Safety is one of the lower order needs on Maslow's hierarchy of needs pyramid (Drakopoulos & Grimani, 2013). It is also an element included in the Neighbourhood revitalisation model which influences quality of life (Habitat, 2018). Without meeting the bottom of the pyramid needs, the needs higher up cannot be achieved and so would limit the level of quality of life that the implementation of the digital library would be able to have on the Vastfontein community (Drakopoulos & Grimani, 2013). As demonstrated by the participants' comments with regards to the feeling of safety of the digital library, the library is seen to be a safe environment for community members and so with this basic need being met. Higher order needs can begin to be explored.

Mental and physical health are factors that influence quality of life. This is one of the outer elements in the neighbourhood revitalisation model which is a factor that is strived toward improving in order to move towards increasing quality of life (Habitat, 2018). Engagement in fun activities, games and social situations helps to increase a person's enjoyment in their life increasing a person's level of happiness (Drakopoulos & Grimani, 2013). The people of the Vastfontein community use the facility to engage in social media interactions and for elements of fun. This then influences a person's mental health and therefore exposure to these facilities through the use of the digital library helps to improve the quality of life of those living in the Vastfontein community and make use of the digital library. Access to resources has helped community members educate themselves on healthier lifestyle options, such as healthier food, and this has an impact on the physical health of the people who have looked to improve their lifestyle through health education. A healthier lifestyle has health benefits in many areas of life and has a positive impact on quality of life (Habitat, 2018).

It is clear from the participants' responses that there is acceptance and common understanding that the digital is a benefit to the entire community. Community members have developed a stronger sense of community and respect among each other for the digital library. This acceptance means that more members of the community are encouraged to make use of the digital library because it is seen as an asset by those making use of it. This further influences other community members who

were not using the digital library and with wider participation more people are exposed to the benefits of the digital library and so the influence of the digital library on the community of Vastfontein can be spread to a larger number of people.

Theme 2: The digital library and literacy

Theme 2 relates to the exploration of the influence that the implementation of the digital library in the Vastfontein community has on the education and literacy levels of the community members who make use of the library.

Literacy is the ability to read and write and this research extends a further examination into the literacy levels of South African's living in rural areas and how this affects their ability to learn. Children in South Africa are shown to be performing below standard compared to children around the world (Pretorius & Naude, 2010). Children growing up in rural settlements have a lower literacy level and are less prepared for learning than children living in urban areas (Pretorius & Naude, 2010).

There are different factors that influence the manner in which the digital library is used and influence the community member's ability to increase learning and literacy skills through the use of the digital library resources. These factors include: having sufficient help; accessibility and number of different resources available. Two out of the three participants said that they feel like there is sufficient help offered by the librarian at the digital library and help offered by other community members making use of the digital library. All three participants said that they feel that the facility is easily accessible and easy to use.

Participant 3: "I ask the librarian to help if I don't understand something."

The library offers community member opportunities to access learning platforms in order for them to complete courses, further their education or increase general knowledge. One participant was doing an online course and made use of the library daily in order to access course material and resources to work on assignments.

Participant 1: "The library has been a huge part of my ability to access information and tools I needed to complete my work. I Couldn't have finished my course without it."

The community members make use of many different resources and feel like they can gain a diverse range of knowledge on information and topics.

Participant 2: "I use the library when I want to check up on the news, look for work or I want to help the children with their homework and need help."

Interpretation of theme 2: Younger generations show higher literacy levels than older generations and this is because children are more exposed to reading and writing platforms at a younger age, improving their ability to learn (Roser & Ortiz-Ospina, 2018). Therefore, increased exposure to these learning resources can improve a person's ability to learn leading to increased literacy levels. Hence, people who make use of the digital library's resources are improving their ability to learn and improve their reading and writing skills as well as learning new skills.

Improved access to educational tools can help to increase, knowledge, literacy and education levels. This improvement can help influence quality of life as seen by the Neighbourhood revitalisation model, which shows education as one of the outer goals to work towards an improved community (Habitat, 2018). These outer factors are the elements which a neighbourhood looks to improve in order to influence the community and ultimately increase quality of life of the people living in the community (Habitat, 2018). Therefore, by improving educational and literacy levels the quality of life of the people making use of the digital library in the Vastfontein community are improving their quality of life.

Ease of use helps to encourage people to use the facility more regularly. The more often people make use of the resources available to them at the digital library, the more they improve on their knowledge and ability to learn and encourages them to continue improving education and literacy. The level of education within the community is a factor which influences the core of the community, as demonstrated by the Neighbourhood revitalisation model (Habitat, 2018). The more people who make use of the library, the more influence this has on the community and the education levels of the whole community and therefore the more influence it has on the quality of life in the Vastfontein community.

The diversity in the knowledge allows community members to gain new skills and the ability to develop their knowledge and learning ability through consistent use of the

digital library's resources. Increased literacy and education can lead to economic and other opportunities to influence quality of life.

Theme 3: The digital library and socialisation

This theme links to the objective which explores the social impact of the digital library on the Vastfontein community. Socialisation in terms of a possible impact on quality of life refers so the social cohesion of the community and the members' willingness to work together (Habitat, 2018). Social cohesion and increased opportunity for interactions between community members has a positive impact on the people living in that community of community, whether they feel connected and supportive of each other (Habitat, 2018). The literature review explained that increased access to technology in informal settlements, such as cell phones has increased the sociability and sense of community within the settlement (Velghe, 2014).

The digital library helps the members of the community gain knowledge about the rest of the world, global events, news, trends and other social events.

Participant 2: "I have learnt so much since the library has been built and I feel so much more connected to the world beyond Vastfontein."

Community members share resources, help one another if there is need and engage in audio and visual resources in the library which encourage interaction.

Participant 3: "We all enjoy the experience and love chatting to other people using the library and connecting with the other community members."

All three participants stated that the digital library is usually busy and well used by many members of the community. This busyness does not impact the usage behaviours of the digital library as it does not bother people or hinder the ability to use the resources. The number of people making use of the digital library at one time encourages more interaction and relationship building.

Gaining knowledge through social interactions are common as participants expressed that they often ask for help with resources in the digital library from other community members or the librarian. Learning resources are also shared among friends and socializing is common in the digital library.

Participant 2: "I like to go with company and we can what we are doing with each other and enjoy it more."

Interpretation of theme 3: The people in the Vastfontein community have increased access to news sources and knowledge about what happens in the rest of the world beyond their community due to the implementation of the digital library. This access to resources has helped to connect the community to the rest of the world through exposure to social media, news and other communication platforms. This can present exposure to the world outside of the community for potential jobs opportunities and to form relationships.

The building of social connections through learning and engaging in the digital resources with other community members helps to improve the sense of community. This helps people form meaningful relationships and leads to them feeling a sense of belonging. This is a need and aspect that influences the quality of life of these community members and the community as a whole.

Resources that encourage social interaction and involve the sharing of entertainment as well as knowledge, such as social media, advertising, or videos, help to increase the sense of community and build relationships among community members.

Sense of community and social cohesion are factors on inner layers of the Neighbourhood revitalisation model. These inner factors are the building blocks which help a neighbourhood work to improve the outer factors (Habitat, 2018). Improving the outer factors ultimately improve the community and influences the quality of life of the community members (Habitat, 2018). Therefore, by influencing the social relationships of the community members who make use of the digital library and encouraging members to interact more regularly and offer support to one another, the library is strengthening social cohesion and sense of community and improving the quality of life of the Vastfontein community.

In Maslow's Hierarchy of needs pyramid the third level of the pyramid is social needs. These needs are the need to feel a sense of belonging in a social environment or community and the need for a loving relationship from a partner, family or friends (Mcleod, 2007). This model shows that social needs are a lower order, basic need and so until this need is satisfied a person is unable to move towards the higher order needs and therefore ensuring a strong sense of community in the Vastfontein

community allows community members to build relationships and gain a sense of belonging and this leads to an improved quality of life for the people living in the Vastfontein community.

Theme 4: The digital library and economic opportunity

An economic opportunity is when a situation or circumstance leads to economic outcomes that are in the interest of the nation or the community in which they arise, by lending towards the growth or retention ability of the nation or community (Law Insider, 2019). In this research economic opportunities refer to the skills, situations or circumstances that can be used by the members of the community in order to generate income. Economic opportunities in an informal community can range in size and type. Some of the opportunities that were discussed in the in-depth interviews included: gaining new skills, applying for jobs outside of the community, gaining qualifications in order to obtain higher earning jobs and the opportunities to further the extent of reach by communicating these opportunities to a greater number of people through the use of the internet.

Some members of the community have gained new skills through learning tools accessed at the library, for example: cooking, knitting and croquette.

Participant 3: "We found a site for knitting and crocheting patterns which we both love."

"I have gained more skills and information on the news and have learnt how to do new patterns."

Other community members have used the resources to help gain qualifications or looked into the potential of an online course. The library has provided some community members with a platform to search for jobs.

Participant 1: "I used the library mainly for my online course and when I wanted to do research for assignments."

Participant 2: "My daughter showed me a site where I can apply for jobs or can apply to get my matric certificate."

Interpretation of theme 4: This theme links to the objective to explore the economic opportunities that re exposed by the implementation of the digital library in the

Vastfontein community and how they can help to influence income levels of the people living in the community. As discussed in the literature review there is a correlation between quality of life and income, up to a certain level of income (Drakopoulos & Grimani, 2013). At the lower levels of disposable income, it is found that the greater the income the greater an individual's happiness (Drakopoulos & Grimani, 2013).

Increased opportunities for an informal community come from the ability to charge a fee for a product or service within the community or being able to obtain higher levels of skills or education in order to get a job within the community or outside of the community.

The skills and qualifications gained can be used to improve the economic situation of people and families in the Vastfontein area. People can use skills that they have gained access to through the use of the digital library to make extra money by selling products or their trade to people within the community and possibly extend outside of the community.

Gaining qualifications opens up job opportunities and presents a potential for growth of income and economic growth. Increased literacy and knowledge levels provide the community with opportunities to improve their salaries and income levels and therefore, improve their quality of life. This influences the entire community as well as the individual's life and their families.

The library has provided an opportunity for community members to have access to online facilities where they can send out their CVs and apply for jobs as well as get exposure to jobs that might be needed in the community or surrounding communities. This increases the chances of gaining employment and earning a salary which can be used to help improve the quality of life for them and their families. One of the factors in the Neighbourhood revitalisation model include economic opportunities. This looks at how a neighbourhood can improve their quality of life through the residents of the community having access to employment (Habitat, 2018). The digital library provides these opportunities and therefore influences the quality of life of the people making use of the digital library in the Vastfontein community.

These opportunities lead to increased disposable income for community members to spend toward their lifestyles and spend in the community which in turn grows the wealth of the community. This increased income and spending leads to the ability to

fulfil other needs on Maslow's Hierarchy of needs pyramid. The ability to fulfil one need and move towards fulfilling the next level of needs on the pyramid means that the quality of life is increasing and therefore higher levels of income influences the quality of life of the people and the Vastfontein community.

This section presented and analyses the research findings. A detailed analysis of the data collected identified four major themes. Themes were evaluated in the context of the research objectives. Literacy, sense of community and economic opportunity are elements of the theoretical framework used for this research in order to establish the quality of life of the people living in the Vastfontein area. Therefore, the interpretation of these themes allows us to determine how the quality of life of the people living in the Vastfontein area is influenced by the digital pop-ups.

5.2 Trustworthiness

Reliability and validity are used to legitimise research and are essential tools for quantitative research (Maree, 2016). Therefore, validity and reliability are not relevant terms regarding this research. This research is qualitative and so trustworthiness is sort after (Maree, 2016). This establishes the research findings are relevant, ethical and authentic (Maree, 2016). This research aimed to gain understanding and create in-depth insights into the quality of life of the people living in the Vastfontein community and how the digital library has had an influencing role in their quality of life. It was essential to ensure that the research findings can be trusted and in order to do this certain criterion were met. To establish credibility and trustworthiness, research must be credible, transferable, dependable and confirmable (Maree, 2016).

Credibility involves establishing congruency between the findings of the study and reality and how believable the findings are (Maree, 2016). This can be done by using research methods and designs that are relevant to the research objective and are well-established (Maree, 2016). This research can be seen as credible as it used a well-established data collection and analysis methods which are in-depth interviews and thematic content analysis (Maree, 2016). The research design is exploratory and is in line with the objective of the research as it aimed to gain understanding through questions pertaining to the influence of the digital library on literacy levels of those

living in the Vastfontein community and through this understanding developed insights into the influence of digital pop-ups on quality of life.

Transferability is a construct in qualitative research that does not allow for generalisations but rather allows for connections to be made between the research findings and other experiences similar to the phenomenon that was researched (Maree, 2016). This research is transferable as the findings of the influence that the digital pop-up has on the quality of life of the people living in the Vastfontein community can be used to compare to other digital pop-ups in other informal or previously disadvantaged settlements. This information along with previous research discussed in the literature review can be used to make inferences on the influences that similar pop-ups would have on other informal settlements or previously disadvantaged settlements similar to Vastfontein.

Dependability refers to the implementation of the research design and data gathering techniques and details demonstrated in the details demonstrated throughout the collection process (Maree, 2016). The data collection instruments used in the research is dependable as it is in the form of a semi-structured, in-depth interview which means that the same interview questions were asked to the different respondents. Respondents were interviewed in the same place and for the same amount of time, meaning that the respondents were answering the questions under the same conditions. The interviews were all recorded on the same recording devices. A journal was kept to document details of the data collection and analysis (Maree, 2016). These factors ensured that the research was consistent and therefore dependable (Maree, 2016).

Confirmability is the degree to which the research findings are established through neutral interpretation of the participants' experiences and not influenced by the researcher (Maree, 2016). The questions in the in-depth interview were designed to retrieve relevant information to gain valuable insights that answer the research question that was posed. This research avoided researcher bias by having a research supervisor oversee the research acting as a secondary opinion over research findings (Maree, 2016).

6. Anticipated Contribution

This research facilitates an understanding into the use of digital pop-ups and how they influence the lives of people living in informal settlements. It gains an understanding of how the increased access to learning resources, technology and infrastructure can help benefit communities. How these pop-ups influence literacy levels of the community and how technology can influence the sense of community and sociability of the people living in the community. The research then further facilitates an understanding of how these aspects can influence the quality of life of the people living in informal settlements. This understanding helps to demonstrate to brands that CSI initiatives such as the those implemented by Africa's Got Game can help the communities in need and demonstrate that they are projects that should be invested in in the future.

7. Ethical Considerations

The Centre for Innovation in Research and Teaching (2019) defines ethics as the established norms of society that distinguish between what is right and what is wrong. Ethics in a research context provides researchers with guidelines as to how to conduct their research using acceptable practices (Bryman & Bell, 2015). Ethics in research encourages the researcher to consider the risks inherent in the project, introduce risk-mitigating practices and ensures an environment of trust. These considerations ensure that the research is carried out with the aim to maximise social benefit while minimising the risks inherent to the participant or researcher. Bearing these considerations further promotes the integrity, consistency and accountability of both the researcher and the data gathered (Bryman & Bell, 2015). The ethical considerations in this research concern the participants and the researcher.

Participant considerations: The considerations from the perspective of the participants are as follows. The researcher ensured that the participants were fully aware of the risks and benefits involved. They understood how their information was going to be used, ensuring the security of sensitive information and for how long this information will be kept (Crow, et al., 2006). They were made aware of their voluntary disclosure and the right to refuse. These considerations ensure collection of data was done within an ethical framework, avoiding potential harm and promoting the validity

of the information gathered. This was done through ensuring the participants fully understood and signed the consent form (Resnik, 2015).

Ensuring confidentiality and anonymity promotes the protection of participant privacy, encouraging honesty and accurate disclosure of information during interviews (Resnik, 2015)

Researcher considerations: The researcher ensured ethical behaviour in the gathering, analysing and documentation of the research process. This involves prioritising transparency in the methodology employed and acknowledging potential limitations or biases in drawing conclusions (Resnik, 2015). In conducting the research, the researcher avoided leading questions, aimed for independence and impartiality, ensured transparent and fair representation of the data and did not misuse information (Carpenter, 2017). These considerations ensure the validity of the information gathered, lending credibility to the conclusions drawn.

8. Limitations

There are limitations to all research projects. These are constraining factors that are out of the researcher's control (Pascoe, 2016). There are several research limitations in this study. This research study operated within a limited time frame. As such, given the time involved in conducting in-depth interviews, the sample population is limited.

Student research is often constrained by limited resources and funding. Students do not have access to field researchers or extensive data-gathering tools. The focus, therefore, shifts away from attempting to reach a large sample but instead places the focus on extracting more information from a smaller sample population, through the use of in-depth interviews. Similarly, the interview is conducted in such a way as to identify current sentiment and assess current environments rather than attempting to determine changes over time. While these limitations may affect the breadth of conclusions that can be made from this research project it does not impact on the quality of the conclusions that are made. Full access to a sample and the use of sampling techniques are limited as many people do not wish to take the time to partake in interviews with a student and often some sort of incentive is needed to ethically encourage respondents to participate (Pascoe, 2016).

9. Conclusion and Recommendations

The purpose of this research entailed the exploration into the influence that digital pop-ups in the form of a digital library in the Vastfontein community would have on the quality of life of the people living in the community and those making use of the digital library. In order to determine this, objectives were explored. These objectives included: exploring the influence that the outcomes of the implementation of the digital library in the Vastfontein community has on the quality of life of the people making use of the library; exploring the influence that increased access to technology and resources has on the education and literacy levels of those people making use of the digital library; exploring the influence that the digital library has on the social aspects of the community and exploring the influence of potential economic opportunities created by the digital library on the quality of life of the people making use of the library in the Vastfontein community.

This research used an exploratory research design to explore the influence that digital pop-ups have on the quality of life by gaining an understanding of how the implementation of Africa's Got Game's Digital Library has influenced the literacy level of the people living in the Vastfontein area. Data was gathered using in-depth interviews and analysed using thematic analysis in order to determine the results and ultimately to conclude whether the implementation of digital pop-ups influences the quality of life.

The previous section discusses the findings of the research that were derived and used a thematic analysis in order to establish four major themes that were identified in the data. These themes were then defined and interpreted with relation to the previous literature and the chosen theoretical framework.

Based on the findings and the results of the thematic analysis it can be concluded that the implementation of the digital library in the Vastfontein community influences the quality of life of the people in the community positively. The digital library, through allowing increased access to technology and resources, has increased learning opportunities and literacy levels; encouraged socialising and sense of community; provided economic opportunities and helped to improve the well-being of community members through mental and physical health information. Thus, it can be concluded that corporate social investment initiatives, such as that implemented by Africa's Got

Game have positive impacts on the communities they are intended to serve. This allows for the conclusion that initiative such as these should be pursued by companies in South Africa wishing to align their brands with having a positive social impact.

10. References

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Appendix A: Interview Guidelines

Interview Guidelines:

NOTES:

- Semi-structured in-depth interview.
- Conducted face-to-face
- Interview conducted at the Vastfontein digital pop-up library
- Use of open-ended questions
- Two recording devices will be used
- Consent forms will be signed
- Interviews are confidential and anonymous

Hello. My name is Tayla Diepenbroek. I am a student at Vega. I am doing my BCom honours in Strategic Brand Management and I am doing research into the influence that the digital pop-up library has on quality of life. I have received your details from Arthur Anderson. Would you mind taking fifteen minutes to answer some questions? Please would you sign the following consent form.

1. How often do you use the digital library and for how long at a time?
2. Do you use the library when you have a specific problem you need information on or to gain more general information on a topic?
– Could you give an example?
3. How do you feel about the accessibility of information in the library?
4. Are there many other people using the digital library at the same time as you?
5. Does this make a difference to how long you spend in the digital library?
6. What kind of content do you like to access most in the digital library?
7. How do you feel about the e-learning resources or news channels?
- What resources do you use?
8. Do you prefer resources that have more written content or visual and audio content?
- Why do you prefer this?
9. Do you know how to access all of the resources to gain the most out of them?

10. Are there ways in which you can learn how to access the resources, in the forms of tutorials? Or do you figure it out on your own?
11. Do you engage with the librarian for information about any of the available resources?
12. Is the librarian available for any additional help and teaching?
 - would you make use of this? – can you elaborate on that?
13. Do you feel like you have gained a greater knowledge and read more content than you would have without the hub?
14. What would encourage you to read more when at the digital library?
15. What is your main reason for making use of the digital library?
16. How do you feel that the library has changed your ability to learn?
17. Does your experience at the library encourage you to bring your friends and family to use the library?
 - Why? Or why not?

Appendix B: Participant Consent Form

EXPLANATORY INFORMATION SHEET AND CONSENT FORM

FOR PARTICIPANTS

To whom it may concern,

My name is Tayla Diepenbroek and I am a student at Vega. I am currently conducting research under the supervision of Althea Fordyce about exploring whether the implementation of the digital library in the informal settlement of Vastfontein has increased the literacy levels of the community and provided them with greater opportunities to improve their quality of life. I hope that this research will help to understand the influence that digital pop-ups have on quality of life in rural communities.

enhance our understanding of How these pop-ups influence literacy levels of the community and how technology can influence the sense of community and sociability of the people living in the community. The research then further facilitates an understanding of how these aspects can influence the quality of life of the people living in informal settlements. This understanding helps to demonstrate to brands that CSI initiatives such as the those implemented by Africa's Got Game can help the communities in need and demonstrate that they are projects that should be invested in in the future.

I would like to invite you to participate in my study. In order to explain to you what your participation in my study will involve, I have formulated questions that I will try to fully answer so that you can make an informed decision about whether or not to participate. If you have any additional questions that you feel are not addressed or explained in this information sheet, please do not hesitate to ask me for more information. Once you have read and understood all the information contained in this sheet and are willing to participate, please complete and sign the consent form below.

What will I be doing if I participate in your study?

I would like to invite you to participate in this research because it will help in developing on understanding of the influences that the digital library has on quality of life. If you decide to participate in this research, I would like to take 15 minutes of your time to ask you 17 questions related to your use of the digital library.

You can decide whether or not to participate in this research. If you decide to participate, you can choose to withdraw at any time or to decide not to answer particular interview questions.

Are there any risks/ or discomforts involved in participating in this study?

Whether or not you decide to participate in this research, there will be no negative impact on you. There are no direct risks or benefits to you if you participate in this study. You might, however, indirectly find that it is helpful to talk about your experience. If you find at any stage that you are not comfortable with the line of questioning, you may withdraw or refrain from participating.

Do I have to participate in the study?

- Your inclusion in this study is completely voluntary;
- If you do not wish to participate in this study, you have every right not to do so;

- Even if you agree to participate in this study, you may withdraw at any time without having to provide an explanation for your decision.

Will my identity be protected?

I promise to protect your identity. I will not use your name in any research summaries to come out of this research and I will also make sure that any other details are disguised so that nobody will be able to identify you. I would like to ask your permission to record the interviews, but only my supervisor, I and possibly a professional transcriber (who will sign a confidentiality agreement) will have access to these recordings. Nobody else, including anybody at Vega College, will have access to your interview information. I would like to use quotes when I discuss the findings of the research but I will not use any recognisable information in these quotes that can be linked to you.

What will happen to the information that participants provide?

Once I have finished all interviews, I will write summaries to be included in my research report,

which is a requirement to complete my BCom honours in strategic brand management. You may ask me to send you a summary of the research if you are interested in the final outcome of the study.

What happens if I have more questions about the study?

Please feel free to contact me or my supervisor should you have any questions or concerns about this research, or if there is anything you need to know before you decide whether or not to participate. You should not agree to participate unless you are completely comfortable with the procedures followed.

My contact details are as follows:

Tayla Diepenbroek

0834530674

taydiep@gmail.com

The contact details of my supervisor are as follows:

Althea Fordyce

0829011213

altheaf@icloud.com

CONSENT FORM FOR PARTICIPANTS

I, _____, agree to participate in the research conducted by Tayla Diepenbroek about exploring whether the implementation of the digital library in the informal settlement of Vastfontein has increased the literacy levels of the community and provided them with greater opportunities to improve their quality of life. This research has been explained to me and I understand what participation in this research will involve. I understand that:

1. I agree to be interviewed for this research.
2. My confidentiality will be ensured. My name and personal details will be kept private.
3. My participation in this research is voluntary and I have the right to withdraw from the research at any time. There will be no repercussions should I choose to withdraw from the research.
4. I may choose not to answer any of the questions that are asked during the research interview.
5. I may be quoted directly when the research is published, but my identity will be protected.

Signature _____ Date _____

CONSENT FORM FOR AUDIO-RECORDING/ VIDEO RECORDING

I, _____, agree to allow Tayla Diepenbroek to audio record my interviews as part of the research about exploring whether the implementation of the digital library in the informal settlement of Vastfontein has increased the literacy levels of the community and provided them with greater opportunities to improve their quality of life.

This research has been explained to me and I understand what participation in this research will involve. I understand that:

1. My confidentiality will be ensured. My name and personal details will be kept private.
2. The recordings will be stored in a password protected file on the researcher's computer.
3. Only the researcher, the researcher's supervisor and possibly a transcriber (who will sign a confidentiality agreement) will have access to these recordings.

Signature _____ Date _____

Appendix C: Ethics Clearance Letter



13 August 2019



Student name: Tayla Diepenbroek
Student number: 19014020
Campus: Vega Bordeaux



Re: Approval of Bachelor of Commerce (Honours) in Strategic Brand Management Proposal and Ethics Clearance



Your research proposal and the ethical implications of your proposed research topic were reviewed by your supervisor and the campus research panel, a subcommittee of The Independent Institute of Education's Research and Postgraduate Studies Committee.



Your research proposal posed no significant ethical concerns and we hereby provide you with ethical clearance to proceed with your data collection.

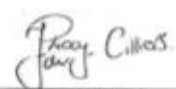
There may be some aspects that you still need to address in your proposal. If this is the case, feedback will be provided to you in writing. You will need to address these aspects in consultation with your supervisor.

In the event of you deciding to change your research topic or methodology in any way, kindly consult your supervisor to ensure that all ethical considerations are adhered to and pose no risk to any participant or party involved. A revised ethical clearance letter will be issued in such instances.

We wish you all the best with your research!

Yours sincerely,


Althea Fordyce
Supervisor


Dr. Franzél du Plooy-Cilliers
Campus Postgraduate Coordinator

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CONDITIONS TO BE FULFILLED IN RELATION TO RESEARCH

Permission is granted to proceed with the above study subject to the conditions listed below being met and may be withdrawn should any of these conditions be flouted.

Please note: The panel has not considered the merits, accuracy or ethical soundness of the research. The only merits examined are the use of The IIE as a sample.

Permission is granted subject to the following conditions:

1. The researcher(s) will need to obtain informed consent in writing from all of the participants in his/ her sample if the study is not anonymous.
2. The researcher(s) may only use the data collected for research purposes and in no other way.
3. Photographs of human subjects may only be taken if relevant to the research, informed consent was obtained, and even with informed consent, the photographs may not be published on any online platforms.
4. The researcher is responsible for supplying and utilising his/her own research resources, such as stationery, photocopies, transport, faxes and telephones and should not depend on the goodwill of the institutions and/or the offices visited for supplying such resources.
5. No names or identifying information of participants may be used within the research and the research must be voluntary.
6. Please make it clear that the information will not be used punitively in any way and participants may in no way be counselled/advised based on this.

The Independent Institute of Education Pty Ltd, its associated companies, employees, contractors, representatives and directors, are indemnified against all claims which may arise in connection with or as a result of any loss, damage or injury to you as a researcher entering into an agreement with a participant in the course of your research, provided that such loss, damage or injury is caused by the gross negligence or intentional act(s) or omission(s) of The Independent of Institute Education Pty Ltd, its associated companies, employees, contractors, representatives and directors.

Wishing you the very best of luck.

Yours sincerely,



Dr Franzél du Plooy-Cilliers
Dean: Research and Postgraduate Studies
The Independent Institute of Education

Appendix D: Concept Document Table

PROVISIONAL TITLE: An exploration into the influence of digital pop-ups on quality of life

Research Purpose/ Objective	Primary Research Question	Research Rationale	Seminal Authors/ Sources	Literature Review – Conceptual Framework	Paradigm	Approach	Data Collection Method(s)	Ethics	Anticipated Findings	References
The aim of this research is to explore whether the implementation of the digital library will improve their quality of life or the people living in the Vastfontein community.	Does implementation of digital pop-ups influence quality of life in informal settlements?	<i>Brands must understand the influences that such infrastructure implementations have on communities in order to decide whether the CSI initiative is appropriate for the brand to invest in and whether it aligns with their purpose</i>	<i>Fie Velghe Ukachi Ashing-Giwa</i>	Theme 1: Literacy Theme 2: Literacy in rural areas Theme 3: African innovation Theme 4: Africa's Got Game	Paradigm <i>Interpretivism</i> Epistemology <i>Knowledge gained through understanding.</i> Ontology <i>Is reality a social construction</i> Axiology <i>Values are of importance</i>	<i>Qualitative</i> Population Population Parameters these are the people who access the library regularly with the willingness to improve their education, who live in the Vastfontein community.	<i>Semi-structured, in-depth interviews</i>	<i>The researcher must ensure ethical behaviour, avoid leading questions and bias, ensure accurate and fair representation of the data and not misuse information. respondents sign and understand the consent form, ensuring confidentiality, ensuring security of sensitive information, ethical collection of data</i>	<i>Implementation of digital pop-ups will influence literacy levels in the Vastfontein community and this will increase quality of life.</i>	<i>What are some of the main sources you will use in your study?</i>
Research Problem	Secondary Questions/ Hypotheses/ Objectives	Key Concepts	Key Theories			Sampling	Data Analysis Method(s)	Limitations	Anticipated Contribution	
<i>What is the problem that you want to solve?</i>	Does the implementation of digital pop-ups influence literacy levels of the community? <i>Does the implementation of the digital pop-ups increase the sense of community?</i>	<i>Digital pop-ups Informal settlements Literacy Quality of life</i>	<i>Maslow's Hierarchy of needs. Braun and Clark's 6-step framework</i>	Theme 5: Technology in literacy Theme 6: Quality of life		non-probability Sampling method: Purposive Size: 4	Unit of Analysis <i>People</i> Data Analysis Method(s) <i>Thematic analysis methods – 6 step framework</i>	<i>Time constraints Resource constraints Financial limitations Sampling techniques</i>	<i>understanding will help to demonstrate to brands that the implementation of CSI initiatives such as the Africa's Got Game projects can help the communities in need and demonstrate that they are projects that should be invested in in the future.</i>	