

Chapter 3. Research Setting

3.1. Introduction

Chapter 1 and 2 importantly brought to bear the initial grand purpose of the thesis in understanding how e-government can lead to human development, the means of inquiry being ethnography and analysis using Grounded Theory. It was illustrated at a very high level how that initial purpose evolved to focus on how ICT can facilitate policy implementation in a development context as a result of the ethnographic immersion in the research setting. This chapter delineates the research setting.

Chapter 3 is structured as follows: Section 3.1 briefly presents the wider socio-economic, political and historical context of the research setting before expounding on the particular research setting, Section 3.2. The iterative process of analysis is presented as part of each sub-section.

3.2. South Africa

3.2.1 Socio-economic Context of South Africa

South Africa is located at the southern coast of Africa (Figure 2.1) and has one of the highest rates of income inequality in the world (Table 2.1). The UNDP indicators of development are in sharp contrast to the more familiar development indicators of the World Bank based on the Gross National Income (GNI) per capita. The World Bank considers South Africa as an upper-middle income economy with a GNI per capita of US \$5,390.00 (World Bank, 2008).



Figure 3.1 Map of South Africa (Republic of South Africa, 1999)

Table 3.1 South Africa Socio-Economic Indicators

Measure	Estimate	Year / Source
Population	49.32 million people	(Statistics South Africa, 2009)
Administrative provinces	9: Eastern Cape, Free State, Gauteng, KwaZulu-Natal, Limpopo, Mpumalanga, Northern Cape, North-West and Western Cape.	(Republic of South Africa, 2009)
Poverty	43.2% of population live below poverty line of R3,000 or US \$425 per capita per annum	(The Presidency, 2007)
Unemployment	23.6% of the population	(Statistics South Africa, 2009)
Life expectancy	50.0 years (48.4% males and 51.6% females)	United Nations (UNDP, 2007b)
Adult literary rate	74.2% men and 72.1% women	United Nations (UNDP, 2007b)
Combined primary, secondary & tertiary gross enrolment ratio	76.6%	United Nations (UNDP, 2007b)
Developing country rank - Poverty	53rd among 102	United Nations (UNDP, 2007b)

South Africa has the second highest economic and social disparities in the world (CIA, 2009) with a semblance of two economies; a highly developed economy where middle and high income individuals live in environments with excellent infrastructure, and a highly undeveloped economy where 43.2% live under the poverty line in despicable conditions (Statistics South Africa, 2009). These disparities are manifestations of the important history that shapes South Africa, as discussed next.

3.2.2 A Brief Historical Context of South Africa

The earliest modern inhabitants of the present day Republic of South Africa are historically said to be the San people, whose descendants still live in the more remote parts of the Kalahari. The San believed that all people were equal and could use the land as a free resource. The migrant Bantu and Khoi Khoi populations, however, believed in land ownership. The indigenous tribes of South Africa are predominantly a result of these three populations or the proceeding intermarriages. The system of governance at the time was through chiefs assisted by an assembly of elders (Were, 1974, Ross, 1999).

The first non-African settlers to South Africa arrived from Holland in 1652 with slaves from Java, Madagascar and West Africa to set up a calling station (Were, 1974, p. 20). Over time the slaves intermingled with the European settlers resulting in a mixed race community of the Cape presently referred to as the Coloureds.

The Dutch settlers relegated menial tasks to the Coloured and the ‘indigenous’ populations. By the end of the 17th century the Dutch attitude began to evolve into a policy of racial distinction and racial superiority (Were, 1974, p. 23). The racial distinctions were exacerbated towards the end of the 18th century with the British occupation of the Cape resulting in two dominant European groups; the English speaking whites who owned most of the commerce, and the Dutch speaking farmers called Boers.

Tensions between the European groups became evident with the abolition of slave trade in 1833, a move which was detested by the Boers. The Boers eventually decided to venture inland for new areas in what is regarded as the Great Trek. The Boers established various Boer republics as they settled. The other reason given for the Great Trek, apart from a desired independence from the British, was the preservation of what the Boers regarded as “‘the chosen race’, God’s own people” (Were, 1974, p. 52). The Boer trekkers believed that God had particularly given to them the non-whites, the ‘indigenous’ Africans and Coloured populations, as their eternal slaves. This latter Boer ideology had a deteriorating effect on the relations between whites and Africans.

The discovery of gold and diamonds near Kimberley and in the Witwatersrand area increased the influx of different European groups with their slave labour into the Boer republics. During the influx there was an intermingling of races which was still not approved of by the Boers. The disapprovals were followed by a period of wars between 1880 and 1902 called the Anglo-Boer wars which culminated in a superficial peace treaty. The Boers, however, remained bitter about three things; losing out on the mineral wealth, the efforts by the British to force English upon them, and the British attempt to create federated states of Africans. The continuing tensions between the British and the Boers left the Coloured and Africans marginalised. The Union of South Africa was soon formed in 1909 whereby provisions were made for home-rule by the Boers (now called Afrikaners) and the remainder as British protectorates with Africans.

With the exception of the vestiges of slave labour in Boer areas, it was only when the Native Land Act of 1913 was promulgated that there emerged a legal precedent of institutionalised segregation. The Native Land Act of 1913 severely restricted land ownership by Africans. The Act was later followed by another racially discriminatory policy, the Native Urban Areas Act of 1923, which required black African men to carry passes when in cities or in white areas. These two acts marked the beginning of institutionalised segregation in South Africa.

Apartheid formally began as official policy in 1948 after the National Party (NP) dominated by Afrikaners was elected into office using the slogan 'apartheid'. Though it was in the minority, the NP managed to swing support from the Boer farmers and business owners by assuring them of a disciplined and cheap labour force through this process of apartheid (Ross, 1999). Apartheid, initially disguised as an emphasis on the preservation and appreciation of the racial diversity in South Africa, entailed the recognition and separation of race groups. However, the notion of racial preservation in apartheid was soon enforced with a series of laws that ensured white supremacy and control. For the next 46 years after 1948, apartheid was the official system of governance in South Africa.

In apartheid the government consciously enacted and actively implemented repressive and discriminatory policies of legalised and forced segregation between races. Segregation spanned all levels of society and governance; from where a person was allowed to walk to the type of education he received. Segregation meant that areas which were meant for whites

only were developed significantly while those meant for Africans, called Bantustans, received very little attention. Apartheid also forcibly resettled many Africans from their ancestral homes to Bantustans. It is estimated that 3.5 million people were resettled between the 1960s through the 1980s. In terms of education, apartheid mandated that the African majority were not allowed to choose subjects such as mathematics, chemistry or physics but rather attempted to force Africans to learn Afrikaans in order for them to become better employees.

Apartheid was resisted internally and internationally through armed struggles and international sanctions. Apartheid eventually collapsed after concerted negotiations that resulted in the 1994 democratic elections. It was in 1994 that for the first time Africans gained control of legislative and political power. A new Constitution was adopted in 1996 as the supreme law whereby the governance was transformed from a highly centralised system to a significantly decentralised system with three tiers of government: national, provincial and local.

3.2.3 Analytic Memo: History of South Africa

The new constitution recognises traditional leadership and gives it an important developmental role to play in collaboration with local government. Traditional leaders are today responsible for the preservation and promotion of the culture, language and religion of their communities within the provisions of the Constitution (Republic of South Africa, 2008b). The Ubuntu notion appeared to be held in high regard in all indigenous South African cultures.

The researcher therefore desired to understand the role of tradition as a set of customs, beliefs and practices, and the influence that that tradition has on South Africans. The researcher chose to interview six of the research participants by asking the following questions which are derived from Whitacre's (1982) literature on tradition and customs:

- “How does information pass around in general, i.e. how do people get to know about what is happening?”

- How do people within the community come together to discuss matters affecting the community?
- How often do people within the community come together to discuss matters affecting the communities?
- Where do people come together to discuss matters affecting the communities?
- What is the perception of people about the above community meetings?
- How are beliefs handed down amongst the tribes living in this community?
- How do people regard the beliefs and customs? Please give an example to illustrate your answer.
- Please describe the structure of the traditional leadership here.
- Do people have respect for the above traditional leadership?"

A Grounded Theory analysis of the answers to the questions gave a bird's eye view of the role of tradition in South Africa. The sub-sections below are the analytic memos of the concepts that emerged.

3.2.3.1 Analytic Memo: The Role of Tradition in South Africa

Tradition plays a very important role in all South African cultures. The majority of the people the researcher interacted with during the research, i.e. the research participants, research colleagues in the PAJA Project and peers, expressed great respect and reverence for their traditions and cultures. The comments below typify the sentiment:

"They highly respect their traditional leaders as they remind and help them to practice and respect their tradition."

“They highly honour their culture, for example boys and girls still go to initiation school where they are taught about their culture in both communities (Sotho & Ndebele).”

Children grow up hearing about their traditional cultures and beliefs and how they are played out in daily life. An upbringing in cultural values applies both to the people who live in the urban areas and those who live in rural areas. For example, attendance at initiation schools, though optional, is considered of such great importance that if a person, male or female, has not gone to initiation school, the person will be despised within the community and be seen as a social misfit.

“We grow up seeing these beliefs done and talked about that when we grow up we make it a point that we do the same that was done and then pass them on to other people. Initiation school for example is a strong belief in the Siyabuswa community that when a person has not gone to the school he/she would be discriminated on until he/she goes to the school.”

At initiation school, the youth are ushered into their traditional customs and are taught some of the ‘secret’ things of their culture. Initiation school creates a very strong rite of passage into adulthood. Many youths choose to attend illegal initiation schools where a number lose their lives because of the harsh conditions such as spending days in cold weather or using infected knives for circumcision. The loss of life does not seem to deter them from the illegal initiation schools. It is important to note that although many of the older traditions have been modernised, such as circumcision now more and more carried out medically in the hospital, the importance of such a rite of passage and the ceremonies around it will still be observed at the initiation schools. During the initiation school’s rite of passage one of the most important cultures that is handed down is the spirit of oneness among people in what has been noted as Ubuntu.

Though in the minority, there exists the same tension between traditions handed down over many generations and new modernised culture driven by ICT or different forms of authority as described in the popular African literature *Things Fall Apart* (Achebe, 1962) and *Heart of Redness* (Mda, 2000). For example, some of the research participants noted that they hold dear their allegiance to the traditional leaders and their authority but are more cognisant of the greater government authority.

“...there are also those who do not have respect.”

“They have a little respect to traditional leadership as most of them respect modern or local council.”

3.2.3.2 Analytic Memo: Community Assemblies & the Role of Women

There are many reasons why people choose to come together within communities; ranging from social reasons such as funerals and marriages, traditional reasons such as imbizos, religious reasons, mainly church; community meetings, e.g. concerning rising cases of thefts, unemployment; and political reasons - the African National Congress (ANC) as the biggest party in South Africa holds more regular meetings and draws big crowds. The choice to attend meetings is usually optional or may be on invitation only, such as political or traditional meetings.

Regardless of the nature of meeting, the means of communicating at such an assembly is through loud speakers booming from a car driving through the streets of the community, word of mouth, the use of flyers and posters in streets, community radio stations, phones and through school outlets. More recently the cellphone is increasingly becoming a preferred method of communication.

Community meetings are usually dominated by a few people, such as the elders or leaders, at times leaving the ordinary people feeling that the decisions that are adopted do not reflect their individual and collective preferences. At other times, the ordinary people feel that their leaders to whom they have given the responsibility for carrying out the groups decisions either distort them or are corrupted along the way. Minority groups such as women and youths very rarely have a direct voice in these meetings and if they desire to express themselves usually must resort to using the medium of men they know. In the traditional meetings, women generally only play an advisory role.

“They feel that information is being distorted from them and the service is not delivered.”

“We the sisters will always play an advisory role at the back.”

It is against these important historical and traditional contexts that the next section describes the research settings in which the researcher was immersed.

3.3. Research Setting

Three field locations were co-opted as research sites for the PAJA Project in 2005, and over the three years managed to retain the same research participants (Table 2.2). Lebotloane is in the North West Province and the research was hosted by the Lerethlabetse Multi Purpose Community Centre (now called the Lerethlabetse Thusong Service Centre); Siyabuswa is in the Mpumalanga Province and the research was hosted by the Siyabuswa Education Improvement and Development Trust (SEIDET). The University of Pretoria is in the Gauteng Province and the research was hosted by the Department of Informatics.

Table 3.1: Research Participants at the Research Sites

	Lebotloane	Siyabuswa	University of Pretoria
Province where Research Participants came from	North West	Mpumalanga Limpopo	Gauteng
Number of Research Participants (2005)	29	22	8
Number of Research Participants (2006)	24 (1 new)	12	8 (1 new)
Number of Research Participants (2007/8)	16	18	4

The common denominator in selecting the research sites was a solid institutional base and the availability of computers. Since the PAJA Project was a longitudinal research project, cross-institutional linkages could provide better grounds for long term sustainability and such institutions are usually already established within their communities. Since the limited research funding did not include the provision of computers it meant that the host institutions needed to have an existing computer infrastructure.

3.3.1 Lebotloane

3.3.1.1 Demographic Overview

Lebotloane is a rural town, 120 km (approximately two hours by road), from the University of Pretoria. Lebotloane falls under the Moretele Local Municipality which falls under the Bojanala Platinum District Municipality of the North West Province. The North West Province was previously under the Bophuthatswana Bantustan (literally meaning *for the Tswana people*) during the apartheid era.

The Moretele Local Municipality is sparsely populated and as at 2001 had a population of 181,033 (Statistics South Africa, 2001). The people of Lebotloane are still predominantly Batswana although there is a proliferation of many other linguistic groups often attributed to the forced relocation during apartheid. In the apartheid era, the previous major form of income for adult males was working in the nearby platinum mines. However, since the mine closed in the late 1990s it is not uncommon to see many young, able bodied men and women walking the streets idly during the day. For the few people who do not migrate to the bustling commercial urban cities such as Pretoria or Johannesburg, the main form of income is the R200 (US \$28) per month child support grant (for women who have children under the age of 14 and are not able to support them) and the old age pension (which supports entire households spanning up to the great grandchildren).

There are very few shops in Lebotloane and they provide only basic commodities such as tomatoes, sugar, salt and soap. The closest shopping centre is Hammanskraal which is an hour away by taxi at a cost of R40 (US \$6) and finding transport money is problematic. If one needs more specialised services not found in Hammanskraal, they have to go to Pretoria at a return cost of at least R180 (US \$25).

3.3.1.2 The Lerethlabetse Thusong Service Centre - The Research Site

The research site in Lebotloane is a Government ICT powered Thusong Service Centre (*previously known as a Multi-Purpose Community Centre*). Thusong Service Centres are community service centres designed to provide integrated services and information from the government to local communities. Each TSC has standard government representation for

basic services such as social grants, health, education, passports and identity documents. Any further government representation at a TSC is based on the needs of the local community. The government envisages having at least one TSC in each of its 283 municipalities before the end of 2014 (Republic of South Africa, 2007c).

The Lerethlabetse TSC is busy on two days in the week; Tuesdays and Thursdays. People come from nearby communities to apply for basic government services. Very few of these use the ICT facilities because they do not know how to use them or do not have the money to pay for using them; R6 per hour (just under US \$1). In total, there may be four people at the maximum who will use the ICT centre in a week. The income from the ICT centre is supposed to supplement the people who manage it. The people use the ICT centre for the purpose of typing out their CVs and sending e-mail. The computers are often plagued with viruses and malware rendering many of them unusable. The people who use these services are often in the age group 20 to 30.

3.3.1.3 Establishing the TSC as a Research Site

The PAJA Project did not have any links with Lebotloane prior to 2004. Through leads from the researcher's supervisor, Dr. Jackie Phahlamohlaka, the researcher established contact with Lebotloane through the government body responsible for the Multipurpose Community Centres, the Government Chief of Information Services (GCIS).

The supervisor and the researcher made their first visit to the leader of the Lebotloane TSC at which Dr. Jackie Phahlamohlaka adopted a more social approach at the meeting. For the first hour they discussed issues related to family, traditions, the economy and everything else but research. The last hour was when they discussed the PAJA Project and its research aims.

Initially, with his corporate background, the researcher wondered why this first meeting took a social approach since they had been given legitimate authority by government to conduct the research at this site. On analysis, the traditional intelligence of Dr. Jackie Phahlamohlaka turned out to be a critical factor in being accepted on a long term basis at the Lerethlabetse TSC. Traditionally, people are inclined to listen to leaders within the community and as such it is more important to be introduced by a leader than introducing oneself. When a leader introduces a person, the person is easier received as a friend of the community or else the

person will meet with stiff resistance. The social approach of the meeting was important for them to gain the trust of the TSC leader who would then open doors within the Lebotloane community.

3.3.1.4 The Process of Selecting Research Participants

Having discussed the PAJA Project and its research aims, Dr. Jackie Phahlamohlaka gave the TSC leader guidelines regarding 20 people required to participate in the PAJA Project research. The guidelines for the research participants included people from the local community who were students, government employees, the aged (pensioners), and those who would be willing to participate. There was traditional wisdom in letting the TSC leader choose the 20 participants; this would get buy in from the TSC since they would have been involved, and besides, none of the researchers knew the Lebotloane area. It would have been an uphill task to select the 20 people. This invariably meant that they were forced to trust the selection of the research participants. The invitations to the research participants were drafted and sent out, countersigned by the TSC leader and Dr. Jackie Phahlamohlaka. The importance of countersigning assisted in being identified with the TSC leader, and as such, a friend of the community.

3.3.1.5 Participation of Research Participants

In July 2005 at the first PAJA Project research visit, the researchers had more than the expected 20 research participants – 29 research participants (excluding the PAJA Project students and researchers). The reason given by the TSC leader for the extra people was that it would have been inappropriate to invite some people and then not invite the others. Additionally, some of the invited participants had also taken the liberty to invite their friends. In 2006, from the original 29 there were 24 people and one new research participant. In 2008, the invitations specifically requested the same research participants for the purpose of research design, validation and continuity. The researchers had 16 of the original 24 research participants from 2006.



Figure 3.2 Research participants (Twinomurinzi and Phahlamohlaka, 2006)

3.3.2 Siyabuswa

3.3.2.1 Demographic and Tradition Overview

Siyabuswa is also a rural town, 123 km (about two hours by road) from the University of Pretoria. Siyabuswa falls under the Dr. J.S. Moroka Local Municipality, which in turn falls under the Nkangala District Municipality of Mpumalanga Province.

The Dr. J.S Moroka Local Municipality is also sparsely populated with 243,313 people in 2001 (Statistics South Africa, 2001). Siyabuswa was the capital of the former KwaNdebele Bantustan during the apartheid area and as the name suggests was designated for the Ndebele people. As with many other Bantustans, there is more than one local tribe here because of the forced relocations during apartheid. Two are the Pedi and the Sotho tribes. During apartheid, the main form of income was working on the farms of white owners. In more recent times however, there is a high level of unemployment in Siyabuswa and similar to Lebotloane, it is not uncommon to find many young able bodied men and women idly walking in the streets during the day. Siyabuswa, although being a rural town, has a few more commercial facilities which offer the basic commodities. The next commercial centre is KwaMhlanga which offers most of the services that might be needed in Siyabuswa.

Dr. Jackie Phahlamohlaka is of the Phaahla Royal Family clan of the Pedi tribe; and as a traditional leader, and further as a community leader, he commands a lot of respect in Siyabuswa.

3.3.2.2 Siyabuswa Education Improvement & Development Trust – The Research Site

The research site chosen is a community education centre located in Siyabuswa, the Siyabuswa Education Improvement and Development Trust (SEIDET). SEIDET was established in 1992 with the aim of improving and filling a science skills gap in the local community in the subjects of mathematics and science (Phahlamohlaka, 2008). The special interest in these subjects is because these critical sciences were denied to indigenous Africans during the apartheid era. Since then SEIDET has established a name for itself as a community driven project with a clearly established structure in which the King of the Ndebele tribe has a seat and presence. Students who have passed through this facility have gone on to become important members of the community and in South Africa. Many of the founder members of SEIDET are still active participants in its progress.

3.3.2.3 Establishing SEIDET as a Research Site

Dr. Jackie Phahlamohlaka comes from Siyabuswa and is regarded with a lot of respect within his home community as well as belonging to the Phaahla Royal Family in his tribe (the Pedi). He was instrumental in the starting up of SEIDET and through him, SEIDET has been the centre of a number of research projects by international and local researchers (Phahlamohlaka, 2008). Therefore, establishing SEIDET as a research site was actually not complicated since SEIDET has a history of being involved in research which has benefited the community greatly. One thing the researcher noted with the SEIDET community is that they were all progressive individuals. On his first visit to the site, many of the research participants owned cars, but by the time we left, parking was a problem. The ownership of a car is an indicator of economic progress.

3.3.2.4 The Process of Selecting Research Participants

Dr. Jackie Phahlamohlaka had meetings with the SEIDET Chairman concerning the PAJA Project research. Similar to Lebotloane, Dr. Jackie Phahlamohlaka gave the SEIDET Chairman the same guidelines to select 20 research participants and the invitations that were similarly sent out were countersigned by the Chairman and Dr. Jackie Phahlamohlaka.

3.3.2.5 Participation of Research Participants

In July 2005, at the first PAJA Project research visit, there were 22 in total (excluding the PAJA Project members and researchers). In 2006, there was a drop in the research participants to 12. The reason given by the Chairman was that there had been an impromptu visit by a leading politician to the community where many community members had opted to attend. In 2008, the invitations specifically requested the same research participants for the purpose of research design and validation and continuity. In 2008, there were 18 of the original 22 research participants from 2005.



Figure 3.3 Research participants (Twinomurinzi and Phahlamohlaka, 2006)

3.3.3 University of Pretoria

3.3.3.1 Demographic Overview

The University of Pretoria (UP) is one of the oldest educational institutions of higher learning in South Africa; established in 1908. UP falls under the Pretoria Metropolitan within the Gauteng Province. Though Gauteng (which literally means *the Place of Gold* in SeSotho) is the smallest province in South Africa (1.4% of the land area), it has the highest population of 10,531,300 (21.4% of South African population) according to the recent 2009 community survey estimates (Statistics South Africa, 2009) especially because of the three Metropolitans within it and its extensive economic activity. Gauteng is the economic hub of South Africa and experiences a massive influx of people from all corners of South Africa looking for better opportunities. Gauteng is highly urbanised and has the same infrastructure as would be found in any other megapolis.

During apartheid, what is now Gauteng was part of the Transvaal Province and was called Pretoria-Witwatersrand-Vereeniging (PWV). The Transvaal was a Boer Republic at the time with its capital as Pretoria. The discovery of minerals, particularly of gold in the Witwatersrand and diamonds in Kimberley, was key to making PWV the economic power house that it is today. Being highly urbanised, life in Gauteng can only be described as similar to that in any other megapolis, highly individualised and with people looking out for themselves.

3.3.3.2 The Group Support Systems Lab - the Research Site

The particular research site was at a then newly established (2004) Group Support Systems (GSS) and Human Computing Interface (HCI) computer research laboratory in the Department of Informatics, University of Pretoria. The GSS research lab is designed to facilitate research into group work and human computing interfaces. The University of Pretoria is one of the top five leading universities in South Africa with an international reputation. The PAJA Project was partially funded by the University of Pretoria as part of the agreement with the National Research Foundation (NRF).



Figure 3.1 The Researchers at the University of Pretoria (Twinomurinzi and Phahlamohlaka, 2006)

3.3.3.3 Establishing the Research Site

Dr. Jackie Phahlamohlaka was also instrumental in the establishment of the research lab through his PhD work on group decision support. It was on this account that the research lab was unlimitedly available to the PAJA Project. In 2005, the researcher was a student at the University while Dr. Jackie Phahlamohlaka was a lecturer. In 2006, the researcher became a lecturer at the University and Dr. Jackie Phahlamohlaka moved to another research

institution, the Council for Scientific and Industrial Research (CSIR). After the researcher became a lecturer, the researcher was given responsibility for the GSS research lab.

3.3.3.4 The Process of Selecting Research Participants

With the enactment of the PAJA in 2003, the government delivered formal training on the PAJA and its requirements to a number of NGOs throughout the country. Dr. Jackie Phahlamohlaka had a list of the people in the NGOs who had been trained on the PAJA and from this list Dr. Jackie Phahlamohlaka and the researcher selected all those people from the Gauteng province as it was easier for them to participate in the research at the University of Pretoria. Along with another student researcher, they contacted each of the potential research participants, circa 40 people, via telephone and/or email. Those who accepted were emailed/faxed an invitation letter signed by Dr. Jackie Phahlamohlaka only.

3.3.3.5 Participation of Research Participants

In 2005, of the 16 people who verbally agreed to participate, only eight showed up. The ones who did not attend did not proffer apologies nor did let us know why they could not come. In 2006, we called all the people we had invited in 2005 again, yet we got only seven of the previous eight people with most of them coming from one social development institution, Peace and Justice. There was only one new person. In 2008, only four of the original eight research participants from 2005 came through. For all these invitations, only Dr. Jackie Phahlamohlaka signed. One thing stood out amongst these urban participants, they were sceptical from the beginning of ICT playing any role in policy implementation, preferring to argue that what was needed was not more computers but actual means for development.

3.3.4 Analytic Memo: Comparing the Research Sites

There are two distinctly different types of environments in the research sites that stood out; highly urbanised (Gauteng) and rural (Siyabuswa and Lebotloane). The sub-sections below are the theoretical memos of the concepts that further emerged from comparing the research sites.

3.3.4.1 Analytic Memo: Perceptions of ICT – Scepticism and Enthusiasm

The means of communication in the urban areas is mainly through ICT, whereas in rural areas it is almost always through other means. The implications for the PAJA Project were two fold: the invitations to participate in research for people in urban areas were through ICT methods such as telephone, fax and email, while in the rural areas the invitations were by hand through the leaders at the research sites. In the urban areas the researcher had to find a list of potential participants who might find the research interesting, while in the rural areas this was left to the leaders at the research sites. Attendance in the rural areas was much higher and consistent, while that in the urban area was, to put it mildly, discouraging.

The people in the rural areas who did not even know how to use ICT were more willing and enthusiastic to experiment with it as a new means to facilitate interaction with government.

“It makes life easier for our communities, ... and this freedom at last.”

Those from the urban areas who had experience with ICT were sceptical about the usefulness of ICT in emancipating people when they joined the research and were still sceptical when they finished the research.

“It is not realistic enough as opposed to what is really happening out there.”

“It made things look too easy.”

The enthusiasm of the people in the rural areas may be attributable to the novelty of something they hear of but rarely experienced. The researcher found it surprising to find scepticism from the urban people whom the researcher had imagined would appreciate the power of ICT.

3.3.4.2 Analytic Memo: Ubuntu at Work

The notion of Ubuntu is familiar across the rural and urban areas and we drew on the Ubuntu paradigm of togetherness while discussing the need to form partnerships, particularly with the leaders in the rural areas. In the spirit of Ubuntu it is more important to first make an attempt at having a cordial person-to-person relationship as the foundation on which formal

relationships may be built. For example, the PAJA Project leader spent more time discussing non-research issues with the leaders. The Ubuntu approach to establish and create linkages in the rural areas is synonymous with the referent power base (charisma) as it is known in organisational behaviour.

The invitations that went out to the research participants made visual use of the well recognised brand names, such as the University of Pretoria, and other South African institutions supporting our research objectives. For example, the German Development Cooperation (GTZ), the Justice College of South Africa, the Master of the High Court from the North West Province, and the Siyabuswa Educational and Development Trust (SEIDET). The display of the titles such as ‘Dr’, ‘Prof’ and ‘Master’ and the branded names was, in retrospect, drawing on the expert power base to influence the decision of the potential participants to attend the research workshops.

The PAJA Project drew on two power bases to influence people to participate in the research; the referent power base and the expert power base. The use of the reward power base was limited and was only used in verbal discourse with the community leaders. The referent and expert power base are personal types of power bases, while the reward power base is a positional type of power base. Organisational scientists contend that the general response to a personal power base is commitment, while the general response to a positional type of power base is either compliance or resistance.

Government draws on their legitimacy, reward and coercive power base to get their staff to comply and implement government policies. The use of the positional power bases produces more resistance and compliance than it does commitment.

3.3.4.3 Analytic Memo: Infrastructural Challenges

There was initially the fear in the rural areas that the existing, but already fragile, ICT infrastructure might be disrupted by the research. The researcher find that the computers were always not fully functional, not because of hardware failures but because of viruses and/or malware. The calibre of the computers in Lebotloane was very high – top of the range computers using wireless networking technology. In Siyabuswa the computers were old.

ICT support was not only limited in the rural communities, but those people who managed the infrastructure onsite were not well trained. In Lebotloane, the technological support existed but could take up to three months before it arrived. Even then, the support would be gone the same day it arrived. The researcher committed himself to making two technical visits to the intended research sites to ensure the existing ICT infrastructure was functioning well side by side with the installed PAJA Project software, GroupSystems. Despite installing GroupSystems, on the day of the workshops, the computers were mostly not functional. After the first workshops, the researcher was asked if he could offer ongoing technical support whenever possible.

3.3.4.4 Analytic Memo: Challenges in Accessing ICT

In rural areas, there are government facilities such as multipurpose community centres which allow public access to ICT facilities for a fee – but the fee limits access due to the high cost. Therefore access to ICT is a challenge for financial reasons.

“As Inter Cafes charges hourly fee one has to work quickly and some of us are slow.”

The location of the public ICT facilities in both rural and urban areas is at times not good, being far from most of the people.

“I have a problem because with the four million population of Soweto there are three centres that are situated next to each other. This does not make sense and is not realistic.”

“There are some internet café in neighbouring townships where I have to board a taxi and still pay for services.”

“There are no IT centres in my community – only advice offices. And we use correspondence by letter or telephonically escort people most of the time.”

3.4. Summary and Implications for the Thesis

Chapter 3 illustrated that despite the freedoms which have been brought about by democracy and the new human rights-oriented Constitution, the disparities in living conditions and

infrastructure still stand out significantly in South Africa with semblances of the old apartheid system of separate development. As a result, most people in South Africa, both in government and amongst the citizens, continue in ignorance about their new freedoms and distrust of government and its initiatives.

There remains a strong attachment amongst South Africans to traditional norms and values. It is therefore not surprising that forming partnerships in the spirit of Ubuntu comes more naturally than through the legitimate authority. On the other hand, traditional norms are selective on the participation of women.

There are challenges in the ICT infrastructure in terms of the skills to support the fragile ICT infrastructure, the money to pay for usage, or the distance to the nearest ICT centre. The usefulness, sustainability and relevance of introducing a specialised type of ICT in such developmental environments on a long term basis is questionable. Despite the challenges, there is a higher perceived role for ICT towards human development in rural areas than in urban areas. Although the need in rural areas is for essential things such as jobs, hospitals and basic living conditions, the enthusiasm for ICT is high.

In the next chapter, the data collected are analysed.

Chapter 4. Data

4.1. Introduction

Chapters 1-3 described the thesis motivations, the research design, and the research setting in which the research was carried out, illustrating the undeveloped and highly developed contexts which still exist in South Africa. The thesis emanated out of the researcher's ethnographic immersion in the PAJA Project (Section 1.3.1) whose title '*Enabling access to human rights through thought processes and web-based Group Support Systems (GSS) tools*' expressed the fundamental emancipatory nature of development (Chapter 5). Part of the reflection on the data collected was previously noted in Twinomurinzi and Phahlamohlaka (2006) and thus the presentation of the data is similar to that paper.

Chapter 4 is structured as follows: Section 4.2 presents the PAJA Project background and how the thesis development aims fitted within the aims of the PAJA Project. Section 4.3 describes the approach that the PAJA Project adopted – thinkLet. Section 4.4 describes workings of the PAJA Project and the accompanying data formally collected. Section 4.5 presents the outcomes of the PAJA Project to date and the bearings on the thesis. Section 4.6 brings together the chapter in a summary and connects it with the literature review, Chapter 5.

4.2. Background of the PAJA Project

The PAJA Project is underpinned by Dr. Jackie Phahlamohlaka's doctoral study entitled '*An analysis of group decision justification and its implications for GSS use and design ideals*' (Phahlamohlaka, 2003). The completion of his PhD coincided with the bringing into effect of Section 33 of the South African Constitution which required the government to pass a law setting out the details of the rights of everyone in South Africa to just administrative action. The law was passed as the Promotion of Administrative Justice Act 3 of 2000 (PAJA). The PAJA applies to all organs of state in South Africa.

The steps prescribed by the PAJA were intriguing and attractive to research from a decision theoretic and Information Systems point of view. There were striking similarities between

what Phahlamohlaka (2003) called ‘prerequisites of decision justification’ and the steps prescribed by the PAJA process. Figure 4.1 provides a high level illustration that served as the theoretical basis for the PAJA Project. It was the framework procedures, their close relationship to the logics of decision justification, and how their implementation could best be supported through the use of ICT that were identified as areas of further research.

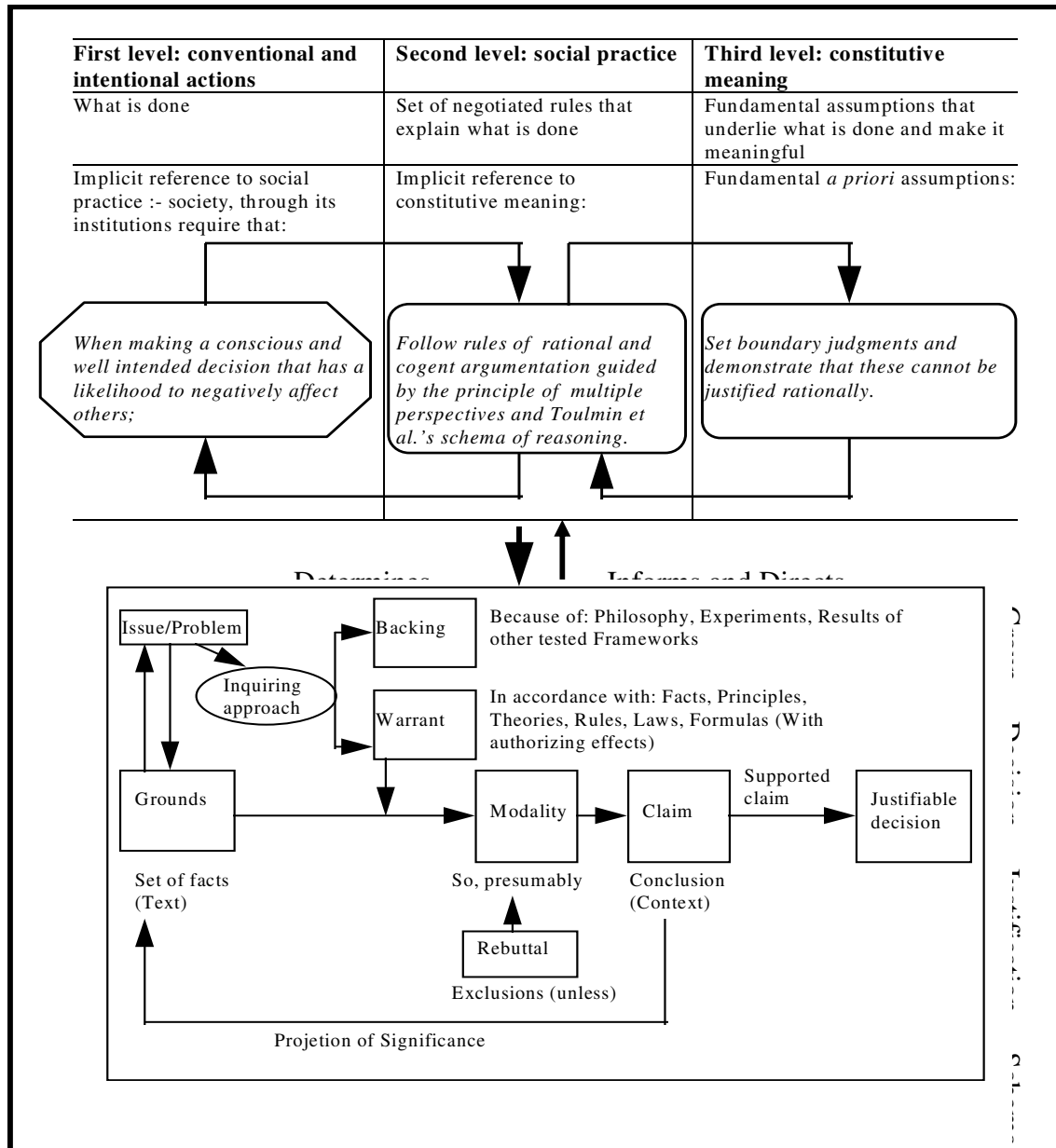


Figure 4.2 Decision Justification Framework (Phahlamohlaka, 2003)

For the purpose of a flow of understanding, a recap of the PAJA Project, as noted in Section 1.3.1 is briefly made. The PAJA Project was initiated in 2003 with the following aims:

- To explore innovative ways in which web-based GSS could enable access to human rights by ordinary South African citizens, and
- To explore, as part of this access seeking process, efficient forms of engagement between ordinary citizens, administrators and managers.

The research questions guiding the aims were:

- How best can the ordinary South African public be enabled and empowered to exercise their constitutional rights espoused by the AJA?
- Can a thought process and web-based technologies be used to support this enablement?
- To what extent would web-based technologies be considered relevant in this process?
- Are these technologies considered as potentially valuable in enhancing a better understanding and implementation of the Act?

The project was expanded in 2006 with one more aim:

- To identify and harness opportunities for sustained collaboration and interaction by communities who would use web-based GSS tools within e-government contexts in South Africa.

For the third aim, collaboration engineering through the notion of a thinkLet (Briggs *et al.*, 2003) and participation in their creation and packaging was adopted. The main research question of the third aim was:

- What features are needed in web-based collaboration tools and how should interfaces be designed to enable citizens to interact effectively with government and public bodies in South Africa?

The introduction of the third aim was influenced by the emerging field of Collaboration Engineering and thinkLets. The notion of a thinkLet was triggered by the inconsistent,

conflicting and ambiguous results in Group Support Systems (GSS) research (Gopal and Prasad, 2000). GSS research was over focusing on a less-than-useful level of abstraction, i.e. the GSS technology itself rather than on using GSS in building collaboration processes as a way to create repeatable patterns of thinking (Briggs *et al.*, 2001b). By focusing research on thinkLets, rather than GSS, research may be more controllable, more replicable, and better able to inform GSS development and use.

4.3. The Approach of the PAJA Project - thinkLets

A thinkLet is defined as a named and packaged facilitation technique captured as a predictable pattern, and which pattern can be repeated by practitioners (Kolfshoten *et al.*, 2006). The thinkLet encapsulates three components of a GSS stimulus; the tool, its configuration, and the script. The tool relates to any object that has the ability to enable people to work together. The tool is ideally GSS technology, since it has the group process advantages of anonymity, parallel communication, and organisational learning (Vreede, 2006). The tool can also be a piece of paper or even a flipchart. The configuration relates to the functionality within the tool which will be engineered to achieve a predictable pattern of collaboration.

Briggs *et al.* (2003) identify five general patterns of collaboration: *diverge* - the group moves from fewer to more concepts; *converge* - from many concepts to focusing on a few worthy of further attention; *organise* - from less understanding to more understanding of the relationships among the concepts; *evaluate* - from less to more understanding of the possible consequences of each concept; and *build consensus* - from having less to having more agreement on courses of action. The script refers to the step by step instructions that are required for the group to achieve their goal.

The notion of a thinkLet was used as a basis for conducting simulation exercises using Group Support Systems as the thinkLet tool in a workshop setting. The thinkLet approach in its requirement for repeatability and transferability is similar to the workings of a workshop whose activities are similarly repeatable and transferable from place to place while maintaining the same values (EvaluateIT, 2009). The purpose of the workshops was to raise awareness about the process involved in the implementation of the PAJA. The workshops

were designed to demonstrate the possibilities for the use of ICT to support the PAJA process simulated using case scenarios.

4.3.1 Workshop Preparation

Before each workshop the research group met at least a month prior to plan out the logistical arrangements such as transport, ensuring the ICT infrastructure was in place, and for the students in the PAJA Project to have an opportunity to collect whatever data need. As seen in Section 3.3.4.3, the researcher offered to ensure the sites were technically adequate to use the GSS technology because of the researcher's ICT technical skills from the industry background as a Customer Support Engineer and a Network Administrator. The researcher made at least two visits to the research sites prior to the workshops, two weeks before and three days before, to ensure that all the computers were working properly and that the Group Support Systems tool of our choice, GroupSystems could be used. At almost all the workshops the majority of the computers would have failed because of viruses and malware forcing the group to make alternative ICT simulation plans at the day of the workshop. The two outstanding decisions were to get the people into smaller groups and to use another thinkLet tool – and this is how Microsoft Office Word 2003 came to be used as an alternative thinkLet tool.

4.3.1.1 Analytic Memo: (Ir) Relevance of ICT Artefact

Because the focus of a thinkLet is not the technology artefact but rather the process, the workshops could continue even if the computers failed to work. The thinkLet approach allowed the researcher the freedom to make use of alternative technology when faced with the infrastructural challenges (Section 3.3.4.3).

4.3.1.2 Analytic Memo: Development Inclinations

The inherent developmental character of the PAJA Project is evidenced in two places; its title states the human rights perspective, and its research questions affirm the essentialness of empowerment.

Despite the contentions about what development actually means for different people (Chapter 5), there is general agreement that development requires empowering people to help themselves (Sen, 2005, Max-Neef et al., 1989, UNDP, 2008). Sen (2005) particularly illustrates the link between Human Rights, empowerment and development, seeing them all as intricately interconnected. The first and the second research questions (Section 4.2) portray the development inclinations of the PAJA Project:

- “How best can the ordinary South African public be enabled and empowered to exercise their constitutional rights espoused by the AJA?
- ‘Can a thought process and Web-based technologies be used to support this enablement?’

When the above two research questions are combined, they convey the same notion as the initial ethnographic ‘grand’ research aim: *‘How can ICT use in government (e-government) lead to empowerment (development)?’*

Having articulated the development inclination of the PAJA Project, it became clear that the data from the PAJA Project could inform the thesis.

4.4. The PAJA Project Process - Workshops

Over the period 2005 to 2008, one workshop at each site every year was held, making a total of nine workshops over the three years. The workshop activities were maintained across the three sites in each research year (Table 4.1). The workshops each year were always planned so that the three sites within a month were completed - in the rural areas, Siyabuswa and Lebotloane on Saturdays, while at the University of Pretoria during the week. Data were collected at every workshop activity using different data collection instruments (Table 4.1).

Table 4.1: PAJA Project Workshop Stages & Data Collection Instrument

Workshop Activity	Data Collection Instrument
Social interactions	<ul style="list-style-type: none"> • Video Coverage
A description of the PAJA Project and its research objectives	
Explanation of the PAJA Act	
Practical session on PAJA Act	<ul style="list-style-type: none"> • Video Coverage • Electronic logs of the sessions when using the ICT
Formal Research feedback	<ul style="list-style-type: none"> • Questionnaires • Video Coverage (Question and Answer Session) • PAJA Project Questionnaire

The workshop activities 1, 2 and 5 remained constant over the three years while activities 3 and 4 were changed each year. The following sub-sections illustrate the workshop activities 1, 2 and 5 together, while activities 3 and 4 are described separately for each year.

4.4.1 Workshop Activity 1: Social Interactions

Each research member and research participant introduced himself at each workshop. The exceptions were new people who were guests of the PAJA Project or community members with a high social and/or political profile. This latter people were introduced by others. The leaders of the host sites were given the honour of chairing all non-academic formalities which included opening and closing the workshop and the social interactions.

The preparation of meals was delegated to the host institution. A maximum budget assuming R100 per person per day for all meals (approximately \$13) was given for the 20 research participants. On all occasions, the food was considered good by the workshop attendees.

4.4.1.1 Analytic Memo: Indigenous Knowledge and Ubuntu at Work

The decision to allow the leaders of the host institutions to chair the non-academic formalities was a mark of indigenous knowledge. The leaders followed traditional protocols such as opening the workshops with traditional Christian songs and prayer and were able to acknowledge important community members. In Ubuntu guests of honour and those with a high profile do not introduce themselves and it is respectful for them to be acknowledged as

attending such gatherings. It is also important that the high profile people say something. It was fortunate that the high profile people were understanding enough not to speak for more than two minutes when asked to say something and mentioned the importance of the research on using computers in the communities.

“There people are here to help us. This thing of computers is new and we need to learn how it can help us in our community.”

There is great value in having the high profile people from the community say something. It conveys the message to the fellow community members that the researchers are not enemies but friends, and it is okay to work with them; an important Ubuntu social exchange, especially in rural communities.

The decision to let the host institution to prepare the meals was also a mark of indigenous knowledge. They were better positioned to know what to prepare and what not to prepare in accordance with the traditions of the community. In the urban research site, lunches were held in restaurants which were equally considered good.

4.4.2 Workshop Activity 2: PAJA Project Overview & Recap

The PAJA Project leader at each workshop ensured that he explained the aims of the research in creating awareness of the PAJA Act and the desire that the research participants might be empowered to help themselves and others when dealing with government. He made clear at each workshop that this was research and that there would be no remuneration.

The PAJA Project leader illustrated past successes of the PAJA Project such as publications and student graduations from the research and linked the successes with potential opportunities for all stakeholders, researchers and research participants in cost reductions and greater efficiency in dealing with Government. He also gave an opportunity to new researchers accompanying the PAJA Project to share their research interests.

4.4.2.1 Analytic Memo: Managing Expectations and Raising Confidence

It was necessary to re-iterate and re-clarify the research objectives of the PAJA Project at each workshop because the research participants always had expectations that we were there to help them deal with their problems.

Despite the re-iterations, during the social interactions and even during the workshops, the researchers were deluged with requests for assistance on every conceivable problem that the research participants had with government. For example, a research participant went into detail on his divorce case and asked how we can assist him.

“My wife wants to divorce me, how can you help me?”

As much as the researcher was trying to empower the people, a few people at the first workshops however preferred that their problems be resolved by us ‘the experts’ and not them - they lacked confidence in themselves. We remained firm in reiterating our desire to empower and create awareness of the PAJA processes so that people at the local level could help themselves. By the third set of workshops, there were people asking for assistance but also there were those that reported on how they were not only empowered but were able to assist others.

“Yes, on [the] door to door campaign, we had one family that applied for an old age grant and was not the given reasons as to why his application was unsuccessful. The researcher helped him to follow the procedures of requesting reasons for application failure when implementing AJA and at the end he did receive the grant. At one of the workshops for youth camp, people were not aware of the Act (AJA).”

4.4.2.2 Analytic Memo: Ubuntu and Batho Pele

It was noticeable that the terms Batho Pele and Ubuntu were used interchangeably in the entire research and were familiar to all the research participants. The notion of togetherness and helping each other was drawn on as part of the PAJA Project in forming partnerships with the communities.

“In Ubuntu we help one another”

The request for a long-term commitment of six years ending in 2011 did not appear burdensome to the research participants. Participation remained relatively constant through the three years with the exception of the Gauteng group.

4.4.3 Workshop Activity 3: Explanation of the PAJA Act

In the workshops of 2005 and 2006, the background of the PAJA Act was given to help participants understand the purposes of the Act, and the requirements and instances in which the Act can be invoked (Table 4.3).

Table 4.2: Theoretical PAJA Act Training

	Lebotloane	Siyabuswa
2005 Trainers	Professor of Law from the Justice College of South Africa A Master of the High Court from the North West Province	Professor of Law from the Justice College of South Africa A Master of the High Court from the North West Province
2006 Trainers	The PAJA Project leader made a recap and handed out PAJA brochures	The PAJA Project leader made a recap and handed out PAJA brochures

In 2005, the training was conducted in Siyabuswa and Lebotloane by two legal experts who had been previously involved in PAJA training across South Africa and had experience in the application of the Act. The Justice College expert explained the historical roots of the PAJA, the present implementation strategies of the PAJA, and expressed some challenges being experienced. The Master of the High Court illustrated the PAJA using examples that are dealt with at the High Court.

Both experts were flooded with questions revolving around the inefficiency and unfairness of the government. The research participants were visibly angry when expressing their sentiments about government. This was embarrassing for the researchers.

At the University of Pretoria, the experts were not required as the research participants had already received training on the Act. Only a recap of the PAJA was given for the sake of those who might have forgotten what had been explained a year earlier.

In 2007/8, the PAJA Act was not explained.

4.4.3.1 Analytic Memo: Colour Still Runs Deep in South Africa

The angry sentiments were biased. The reaction to the Professor of Law was moderately harsher than that aimed at the Master of the High Court. The researcher later came to understand through his personal interactions with fellow researchers and some research participants that there are still deep seated sentiments of anger between the black and white races in South Africa. It is important to have a neutral intermediary between government and citizens, such as researchers, in order to avoid such embarrassments and also for objectivity. It is at this point that the intermediary role that ICT can play began to become clear.

4.4.3.2 Analytic Memo: Citizen Perceptions of Government Ineptitude

There was an underlying pattern behind the complaints aimed at the government officials which points to how citizens perceive government administrators; i.e. arrogant, inept and uncaring.

“The researcher spent a lot of money to go to the home affairs offices in Pretoria only to be told to come back tomorrow.”

4.4.3.3 Analytic Memo: Policy versus Legislation

There is a significant difference between policy and legislation. Law refers to a system of rules that are enforceable through institutions with the necessary authority to enforce them. Law can compel or prohibit behaviour. Policy, on the other hand, refers to a system of rules to guide decisions and achieve rational outcomes. Policies are not enforceable.

The PAJA is law, while Batho Pele is policy. Most people in South Africa are familiar with Batho Pele but not of the various Acts that empower it (Table 1.1). The PAJA, on the other hand, can be enforced since it is law.

4.4.4 Workshop Activity 4: Practical Session on PAJA Act

In 2005 and 2006, real case scenarios from the researcher's Masters dissertation (Twinomurinzi and Phahlamohlaka, 2005) were used to simulate interaction between a government administrator and a citizen who had been affected by administrative action. The researcher replaced the names of the people with the pseudonyms Grace and Anna. For 2005 the Anna case scenario was used where Anna had been denied the child support grant she had applied for. The reason given to her by the government for rejecting her application was that her child was above the age for child support, i.e. 14. Her child was actually well below the age which the government had on file, i.e. nine. She had not contested the decision and did not know what to do. In 2006 we used the Grace case scenario. Grace had been denied the disability grant. The reason given to her by government for rejecting her application was that she would soon be eligible for a pension grant. Grace claimed she was chronically ill and that her doctor had given her an official letter stating she was the equivalent of being disabled. Grace did not know how to read and she feared to question government in case she unnecessarily caused bad blood.

In 2007 (2008) a pre-formatted example used by the government in training its administrators on how to implement the PAJA was used. This example was available on the government website. In this scenario, Dube makes an application to government for a pension grant.

The practical session followed the same pattern; the researcher would hand out the following materials to the research participants:

- A shortened copy of the PAJA requirements for government administrators.
- A shortened copy of the PAJA requirements for citizens.
- The case scenario and the rejection letter received by Grace and Anna from the government.

The researcher would then read through the case scenario along with the participants to ensure the case was well understood by all the participants. This was done in English as all

the research participants understood English. If there were any questions to clarify the case scenario, the researcher answered them. There were rarely any questions.

The researcher then would ask the research participants to volunteer as either a government administrator or the affected person. This was by way of a show of hands after which they went into their two separate groups. In all the workshops, it was interesting that there were almost always an equal number of volunteers for either group. The researcher then further sub-divided the administrator and affected citizen groups into smaller groups, depending on the number of computers available to be used. The maximum for the subdivided groups was five people. For example, from a group of ten people, the researcher would sub-divide the group into smaller groups of three, three, and four in order that they could use three computers. Each smaller group would then assume a role as either an affected person or the government administrator.

The instructions were that in each of the smaller groups they were to discuss amongst themselves how to respond to the other group. For example, if the smaller group was Anna then the smaller group would have to discuss what to write to the government administrator asking for written reasons as to why the application had been rejected following the PAJA Act requirements. It meant that each smaller affected person group had a corresponding administrator group to interact with.

The smaller groups then proceeded to the computers in the computer lab. When at the computer the researcher would ask if there was anyone who was not able to operate the computer on behalf of the group. In the rare event that there was no person in the smaller group who knew how to use the computer, a student researchers was appointed to assist that group.

The computer simulation would then start with the researcher asking the affected person to discuss in 10 minutes how they should respond to the administrator. After seven minutes the affected person had to type on the computer what the group had decided and then submit it to the administrator. We allowed three minutes for typing and submitting the response. Similarly the administrator was asked to take 10 minutes to consider a response to the affected person, asking the administrator to ensure that they discussed the PAJA Act

guidelines so they could give an appropriate answer to the query they had received from the affected person. After seven minutes the administrator was asked to type their answer and submit it. The process of computer simulation followed the pattern shown in Figure 4.2.

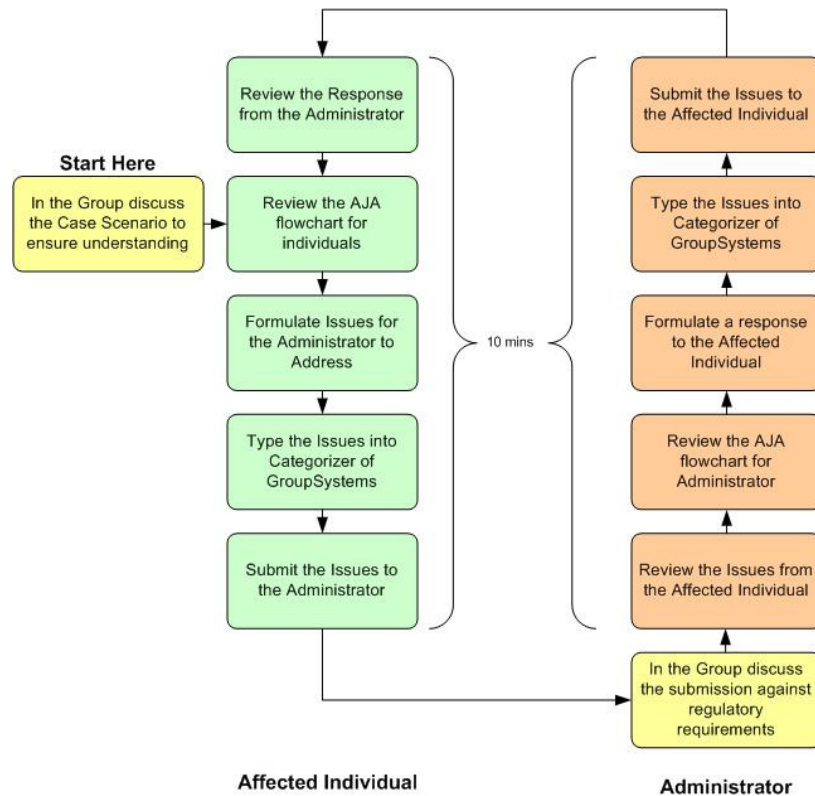


Figure 4.1: The Computer Simulation Model (Twinomurinzi & Phahlamohlaka, 2006)

Three sets of correspondence between the affected person and the administrator were allowed which fitted in the hour allowed for this activity.

4.4.4.1 Analytic Memo: Women

In all the case scenarios, the affected people in need of emancipation are all women. Grace and Anna were looking after their families. In the case of Anna, the husband had abandoned her for another woman, while for Grace, although the husband was alive, he was not able to provide because of his old age. Grace in particular was looking after a household of more than 10 people who included her unemployed children with their children (her grandchildren) all in the same house.

4.4.4.2 Analytic Memo: Planning with Uncertainty

At the very first PAJA workshop, the plan was to have 20 computers working so that each individual could work alone on a computer. However, only six out of the 12 computers the researcher had fixed and made ready for the simulation were working. The PAJA Project leader quickly decided to let the research participants use the computers in groups.

It was the intention to use the anonymity feature of GroupSystems but because people had to work in groups, it was obvious who the administrator was and who the affected person was.

4.4.4.3 Analytic Memo: Active and Enthusiastic Role Playing

At the first workshop, when splitting the people into smaller groups, there was an unspoken tension about what was to be done. However, once the computer simulation started, there was excitement. The excitement was usually exhibited in the form of visible anger on the side of the affected person when they perceived the administrator group as not having an understanding of their plight, and obvious contentment when the administrator gave a favourable response.

The administrator groups appeared to enjoy having the authority to determine the fate of the affected person.

4.4.4.4 Analytic Memo: Perspective Incongruence

The dialogue between the affected person and the administrator showed that the affected person expected the administrator to empathise with their plight and step in and assist.

Grace 02: "It is not fair to live on someone's pension fund, what are the requirements for a disability grant? Medication is expensive,-who should pay for the bills and food? Who should pay food for the family of six? All the children are still at school. Who should pay for their school fund and buy their clothes? Where will I get the money to pay for water and electricity? Who will pay for my transport to go and fetch the medication at hospital?"

Grace 02: "While waiting for the old age grant should we starve? I have waited for 17 years, bills have accumulated and the children will be dismissed from school. These children

might see crime as the only option for them. I am not employed and my husband is also not working. No source of income for the family. I have submitted all the documents required, the problem was just my age. Should we suffer because I am turning 60 in December?"

Citizens believe the government exists to support them in moving towards a better life and to assist them while they are in the transition to the better life. They also believe they are trying their best and are fully cooperating with government.

On the other hand, the administrators look for hard evidence which they needed to support the decision they need to make. Government administrators look at cases from a bureaucratic point of view; applicants are entitled to receive a service only when all the conditions necessary to receive that service are fulfilled, missing information or even the suspicion of deceit will automatically mean a denial of service.

Administrator 02: "These are [the] requirements of the disability grant: You will need a medical report from a doctor of a public hospital. Your annual income should not exceed R33 384, for married people, and R18 024 for single people. You will also need a police affidavit that proves your postal address or residential address or electricity bill, a copy of your ID book that is certified, and your birth certificate."

4.4.4.5 Analytic Memo: (Ir) Relevance of the ICT Artefact

It increasingly became more evident that the usefulness of the specialised GSS technology was that it made collaborative work much easier. Facilitation could have happened with different artefacts – paper being a potential alternative. The usefulness of ICT is primarily in its provision of a faster and more convenient means of interaction; for example, dominance in the small groups was overcome at the point of submitting the responses.

4.4.4.6 Analytic Memo: Experiential Learning

By the third year, the research participants did not use or ask for the script on how to carry out the discourse using the computer; they knew the process. Most of the groups were able to exceed the usual three cycles within the set hour because they knew what process to follow.

4.4.5 Workshop Activity 5: Formal Research Feedback

Before the close of the workshops, there were three research feedback sessions. The first was a discussion where all parties came together, i.e. the researchers and the research participants, and discussed the experiences of the PAJA Act while using the computer. In the second feedback session the research participants recorded their experiences of the workshop individually on a piece of paper. Anonymity was allowed to enable free expressions. The final feedback session requested participants to openly offer their opinions and observations on anything they wished to comment on.

4.4.5.1 Analytic Memo: Seeing Both Sides

Most people said they were beginning to understand why some of the requests by citizens are rejected and why some administrators are not responsive. They said they began to understand government better and some of the government responses which they often had taken for granted. Many expressed that they felt more confident to deal with the government after the workshops.

4.4.5.2 Analytic Memo: Hunger for Knowledge

In the rural areas, there was an evident hunger for knowledge on how to help oneself, as seen in the frequent requests by the research participants for more workshops.

“We need more workshops.”

“Try to increase the research group to more areas.”

4.4.5.3 Analytic Memo: Testimonies of Development

In the subsequent workshops, the general feedback was that many individuals had learnt something about the Act, how it works, and had been able to use it for themselves and for others.

“The workshop helped one participant by giving her the knowledge of the AJA as well as helping her to transfer the knowledge to her citizens/clients (in this case it was a group of

PWAs). *It also helped her realise the potential use of technology for implementing the AJA. Another participant used the knowledge from the workshop to tackle an issue of corruption in her local community.*”

Many participants stated that if such a system could work in reality, it could save on cost, time and effort as the most significant contribution that ICT could assist in was in interacting with government.

One of the participants was able to entrepreneurially start an organisation that assists people implement the PAJA.

“It gave us information about the AJA and made us aware of the AJA. And what we have discovered is that this Act is helping not only in the Justice Department but is a general helping tool all departments in Government. The workshop helped one of the participants formulate his own programme and strategy to implement the AJA. The implementation is user-friendly and simple.”

4.5. The PAJA Project Outputs

The PAJA Project has since graduated three Masters’ students; one Honour’s student and had six publications. The researcher briefly describes each of these outputs.

4.5.1 First and Second Milestones

- The first two milestones of the PAJA Project were the completion of the researcher’s Master’s dissertation and its publication in September 2005 at the Second Conference on Online Deliberation: Design, Research, and Practice / DIAC-2005 in Stanford, California (Twinomurinzi and Phahlamohlaka, 2005). The paper reported how the South African government could potentially use web-based Group Support Systems (GSS) to enhance procedural fairness according to the PAJA. The paper was based on an action research means of enquiry and used hermeneutics to analyse the data. The paper showed that:
- Web based GSS resulted in lower costs and lower time in the appeal process.

- There was an increased awareness of PAJA to the case participants.
- There was faster feedback on the application progress.
- There is a lack of technology infrastructure and where it exists there are no skills to fully utilise it.
- There is a need for training in using the technology.
- There is a fear of challenging those in authority.
- There was general appreciation by the case participants for having been included in the study as they could see the benefits thereof.
- The rejection letter was misinterpreted due to illiteracy.
- The information in the rejection letters as required by the PAJA was incomplete.

The Stanford paper has since been published in a book, *Online Deliberation: Design, Research, and Practice* (Twinomurinzi and Phahlamohlaka, 2009).

4.5.1.1 Analytic Memo: The Trigger for Research into e-Government and Development

The Masters dissertation became the start of the researcher's enquiry into how e-government could contribute to development. The researcher was particularly concerned with the plight of those participants who were living in deprivation and had no clue as to what to do next. The researcher also became more aware of his inability to assist them as an individual capacity, yet could see that government was able to provide for them. Since his area of expertise was ICT, he wondered how ICT use in government, i.e. e-government, could assist such individuals to emancipate themselves. The cases of the individuals which the researcher had used for his Masters were adopted as the case scenarios in the PAJA Project research (Section 4.3.1.4).

4.5.2 Third Milestone

The third PAJA Project milestone was a one year analysis of the PAJA Project presented in September 2006 at the Conference on Information Technology in Tertiary Education in Pretoria, South Africa (Twinomurinzi and Phahlamohlaka, 2006). In this paper the researchers presented the results of the simulation exercises from the six workshops of 2005 and 2006. The paper adopted the unit of analysis as the practical process facilitation described in Section 4.3.1.4.

The critical appraisal guidelines for single case study research proposed by Atkins and Sampson (2002) were used to assess and analyse the results of the simulation exercises. The paper showed that the process of the computer simulation exercises the researchers designed were repeatable and predictable (Figure 4.2) and served as the script requirement for the design of the thinkLet. The researchers were fortunate in that one of the creators of the thinkLet notion, Gert-Jan de Vreede, (Briggs *et al.*, 2001a) was available to verify the criteria for the analysis of the research results and proposed to name the thinkLet, the TurnStormer (Figure 4.3).

“The formulation of a response by a role (a turn) is a thinkLet in itself. The researcher proposes we call this TurnStormer. Each subgroup (or individual in other situations) is thinking up reasons, bits and pieces of information, and then formulate a response. The data show that the responses are fairly polished in the sense that they consist of complete sentences and paragraphs. No sound bites. So, each role (whether represented by an individual or by a small group of participants) brainstorms elements of a response and then formulates this when it is its turn”

The TurnStormer thinkLet

Tool:

1. GroupSystems Categorizer

Configuration:

1. Create the two groups in Categorizer, the affected individual and the administrator
2. Display the Categorizer tool for both groups

Script:

1. *Say this to the affected individual:*
 - a. “You have read the scenario and the rejection letter, with your knowledge of the AJA, “Grace” how would you respond to the Administrator?”
 - b. Type in your thoughts on the computer. Do not send them as yet. While one person types, let the others engage in discussion.
 - c. You have 10 minutes to complete this task
 - d. Now submit your questions to your corresponding Administrator. “Grace” 1 to Administrator 1, “Grace” 2 to Administrator 2 ... “Grace” n to Administrator n .”
2. *Say this to the Administrator:*
 - a. “You have read the request from “Grace” as well as the rejection letter you sent to her, with your knowledge of the AJA and from the Administrator point of view, how would you formulate a response to “Grace”?”
 - b. Check that the application from “Grace” complied with the criteria for a Child Support Grant.
 - c. Wherever you find a point to note which might be of importance to “Grace”, make a note of it
 - d. You have 5 minutes for this exercise
 - e. Check that you followed the criteria for procedural fairness according to the AJA
 - f. Wherever you find a point to note which might be of importance to “Grace”, make a note of it
 - g. You have 5 minutes for this exercise
 - h. Discuss the notes you have raised and write a response to “Grace”.
 - i. Type out the response. Do not send it.
 - j. Send the response to “Grace”.”
3. Allow 3 cycles for this exercise.

Figure 4.2: The TurnStormer thinkLet (Twinomurinzi and Phahlamohlaka, 2006)

With regard to the objectives of the research and the research questions, the researchers could confidently claim that the workshops and the simulation exercises were succeeding in raising the required awareness of the PAJA. Three out of four groups in the Siyabuswa environment, and three out of five groups in the Lebotloane environment had someone, who as a result of the workshops, assisted someone or themselves, using the provisions of the PAJA. Two participants from the Siyabuswa research site remarked as follows:

“Yes, one of the participants was personally affected by the AJA and used the principles of the AJA to formulate a program to assist with the implementation of the AJA. Another one of

the participants was involved in helping people who were HIV positive to get grants from the government.”

“Yes, on door to door campaign, we had one family that applied for an old age grant and was not given reasons as to why his application was unsuccessful. The researcher helped him to follow the procedures of requesting reasons for application failure when implementing AJA and at the end he did receive the grant. At one of the workshop for youth camp, people were not aware of the Act (AJA)”.

4.5.2.1 Analytic Memo: The Development Inclinations

When the researcher turned to the literature on development, the researcher realised that as a result of the PAJA Project the research participants were emancipating themselves and the people in their communities. There are two developmental aspects in this; the research participants were becoming self-reliant (Max-Neef *et al.*, 1989) and they were taking advantage of the new skills they had acquired and doing something to benefit themselves in what Sen (1999) calls an ‘achievement’. The role of e-government in contributing to development was in facilitating the implementation of policy. This was the beginning of the clarification of the research question into *‘How can ICT facilitate policy implementation in a development context?’*

4.5.3 Fourth Milestone

In May 2007 the researcher presented the formative ideas of his developmental inclinations based on the data from the PAJA Project at the 9th International Conference on Social Implications of Computers in Developing Countries in São Paulo, Brazil. In this paper the researcher analysed the data using the diffusion of innovations theory as a theoretical lens looking at ICT as a critical success factor in delivering development innovations in the two rural communities. The paper showed that e-government in South Africa would have to incorporate the collaborative element advocated for in Batho Pele using the Collaboration Engineering approach.

4.5.4 Fifth Milestone

In September 2008, the PAJA Project research members jointly presented a paper at the IFIP Workgroup 9.4 Joint Workshop in Pretoria (Phahlamohlaka *et al.*, 2008) which assessed the quality of the TurnStormer thinkLet as a building block for Collaboration Engineering for the implementation of the PAJA Act. The quality was assessed using the Collaboration Engineering design standards which had just been published by Kolfshoten (2007). The paper verified the TurnStormer thinkLet met four of the five dimensions (Table 4.1). The efficaciousness standard requires that the TurnStormer thinkLet be mapped as a UML class conceptualisation.

Table 4.3: Quality dimensions to assess the TurnStormer ThinkLet (Phahlamohlaka et al, 2008)

Dimension	Dimension Description	Applicability to TurnStormer
Efficaciousness	The extent to which the design, when used as prescribed will focus the expense of resources to achieve the group goal.	The TurnStormer appears to us to be the master thinkLet that could guide the creation of smaller thinkLets each addressing specific features of the PAJA. However in comparing the TurnStormer with the master thinkLet conceptualization developed by Kolfshoten, it does not seem to be well conceptualized
Acceptance	The extent to which the design when used as prescribed accommodates individual stakes sufficiently, to motivate stakeholders to commit the required resources for goal achievement.	The TurnStormer thinkLet emerged out of designed collaboration process with active involvement of stakeholders. The taking of turns between the affected individual and Administrator in their engagement as required by the PAJA afforded them sufficient stakes. The fact they are all still participating in the workshops is a good indicator of commitment towards achieving the goal
Reusability	The extent to which the design can be used successfully in different instances of the task.	We claim that the TurnStormer thinkLet is perfectly suited for reusability. Its design is made up very simple turn taking by the intended stakeholders. It captures the process flow that could be used to guide the different features of the PAJA process
Predictability	The extent to which the design, when used as prescribed, creates a process and results as intended by the collaboration engineer.	The processes as well as the results as intended by ourselves as the facilitators were in accordance with expectations.
Transferability:	The 'ease of training' and the 'ease of execution' from the perspective of the practitioner	
Ease of training	The ease of training is determined by the training load: Training load is the amount of cognitive effort required from the practitioner to sufficiently understand the process prescription.	We have enough evidence of practitioners expressing a level of understanding of the process. This has being demonstrated through the three simulation field studies conducted in 2006. This led us to think that the design of the TurnStormer thinkLet has reduced load on participants' cognition.
Ease of execution	The ease of execution is determined by the execution load: Execution load is the amount of cognitive effort required from the practitioner to execute the process prescription	We think that the designed thinkLet will be easily executable by the practitioners without much involvement of the collaboration engineer. This however must still be tested in the next field exercises in 2008.

4.5.5 Sixth Milestone

At the same IFIP Workgroup 9.4 Joint Workshop in Pretoria, South Africa, with his first supervisor the researchers presented a paper that reported on the need for participative interaction between government and citizens (Byrne and Twinomurinzi, 2008). The paper proposed a plausible theoretical framework informed by Toulmin *et al.*'s (1979) schema of reasoning and Courtney's (2001) decision making paradigm as to how citizens could participate with government in the implementation of the PAJA Act.

4.5.6 Seventh Milestone

A member of the research project also completed her Master's degree using data from the PAJA Project. The researcher supervised this student while the PAJA Project leader was the co-supervisor. The Master's was presented at the 12th International Business Information Management Association Conference in June 2009 in Kuala Lumpur, Malaysia (Ojo and Twinomurinzi, 2009). The paper focused on the necessary flow of information between a government administrator and a citizen in aiding the decision making process required by the PAJA Act. The paper used an interpretive paradigm positing the potential usefulness of mobile technology designed as a group support system tool in support the decision making process applying the idea on the pension application life cycle. The results showed that mobile technology designed as GSS is well placed in facilitating the implementation of the PAJA Act.

In terms of this thesis, the paper further lent support to the situated importance of ICT as a critical element in facilitating policy implementation. The most important aspect is the collaborative process in facilitating its implementation and any form of technology can be used. Mobile technology appears well suited seeing its mass proliferation in developing countries.

4.5.7 Eighth Milestone

Another member also completed her B.Com (Honours) degree using data from the PAJA Project. The researcher also supervised this student while the PAJA Project leader was the

co-supervisor. Though this mini-dissertation has not been published yet, the paper showed how the post-apartheid government of South Africa continues to struggle to implement many of its policies. The researchers adopted an interpretive research approach and analysed some of the data from the PAJA Project using grounded theory techniques. The mini-dissertation showed that that Group Support Systems which take into account the social/human contexts can save time, cuts costs, and allow citizens to communicate with the government without being at the same place.

In terms of the thesis, the mini-dissertation showed the ability for the specialised function of collaboration in ICT to add economic value to people in conditions of deprivation.

4.5.8 Ninth Milestone

In May 2009, the researchers presented as a research-in-progress what the researcher would regard as the pre-cursor to the write up of how the researcher believed e-government could contribute to development at the 10th International Conference on Social Implications of Computers in Developing Countries on Dubai, United Arab Emirates (Twinomurinzi *et al.*, 2009).

The paper attempted to bring together the researcher's experiences as part of the PAJA project using the ethnographic breakdown-coherence-resolution approach to the formulation of theory by Agar (1986). The researcher borrowed from four theories which the researcher had reviewed during his literature review; the Capabilities Approach, Actor-Network Theory, the Diffusion of Innovations Theory and Habermas' Theory of Communicative Action.

Agar (1986, p. 22) proposes that during an ethnographic immersion into the research phenomenon, the researcher will invariably meet disjunctions between the traditions within the research phenomenon and the theory guided expectations; the disjunction signals a breakdown. That is, when a strip of the theory is not understood in relation to tradition, a breakdown has occurred. Once a breakdown is identified, something must be done about it and the process of moving from breakdown to understanding is called resolution.

In resolution, the theory is modified or a new theory is constructed before trying again. This process of resolution continues until all breakdowns are resolved, resulting in what is called

coherence. A coherent resolution can be known to have been reached when the resolution can “1) show why it is a better resolution than others that can be imagined 2) tie a particular resolution in with the broader knowledge that constitutes a tradition and 3) clarify and enlighten, to elicit an “aha” reaction from the members of the different traditions that make up the ethnographic encounter” (Agar, 1986:22).

Each of the theories was able to explain a portion of what the researcher had encountered in the field but was not able to explain comprehensively explain how ICT could facilitate policy implementation in a development context. The paper resulted in what the researcher regarded as critical-interpretive guidelines for conducting ICT4D research.

The paper received overwhelming criticism as being theoretically over laden and in losing the spirit advocated for by Agar (1986). The overwhelming response was to rather focus on using Grounded Theory to analyse the development experiences and create a substantive theory which the researcher could then use to compare with the formal theories.

The researcher was fortunate because he was able to re-formulate the paper based on the feedback from the IFIP 9.4 Dubai conference and present it a week later in June 2009 at the doctoral consortium of the 17th European Conference on Information Systems in Verona, Italy. In this presentation, the researcher made a brief re-analysis of the same data using Grounded Theory and presented the rudimentary substantive theory. The rudimentary substantive theory was better received and the researcher was given further pointers on how to perfect the use of Grounded Theory. It is from the two sets of feedback at IFIP 9.4 and ECIS 2009, and the guidance of his supervisors, that the thesis evolved to create the substantive theory using Grounded Theory and comparing the substantive theory with formal theory (Chapter 5).

4.6. Summary and Implications for the Thesis

Chapter 4 described the data from the ethnographic immersion into the PAJA Project and its analysis using Grounded Theory. The theoretical memos revealed that the PAJA Project is in essence development-oriented in its emancipation of people and in assisting them to become self-reliant. It, however, emerged that special attention may have to be given to women and

probably other minority groups who are in greater need of emancipation. Nonetheless, people who are in deprivation are generally more receptive to new knowledge and enthusiastic of any help they can receive, especially concerning ICT. This is an attitude that can be utilised in ICT4D research to mutual advantage in making both citizens and government administrators understand the needs of each other.

The analysis also revealed that in ICT4D research or projects, ICT should not be relied upon entirely. The usefulness of ICT is in its ability to provide a fast and convenient means of communication, rather than as an end in itself. Alternative options should therefore be made for non-ICT means if the need arises. In many instances, many things will go wrong and this therefore requires an ability to be flexible with plans and to plan under pressure.

Ubuntu plays a significant role in rural communities in allowing for traditional norms to be observed and in creating working partnerships. Yet, despite Ubuntu, there is still a deep seated mistrust of government and between races in South Africa. This is coupled with the citizens' perceptions of government ineptitude. Development initiatives by government will probably be more effective if they are centred on legislation rather than on policy. This is because policy cannot be enforced, while the law is enforceable.

The next chapter examines the key literature reviewed concerning the important areas that emerged from the analyses.