The Knowledge Café as a Research Technique

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Abstract: The purpose of this paper is to describe the application of a Knowledge Café as an academic research technique. Knowledge Cafés are a tool for sharing knowledge among those individuals who participate in the conversations it encourages. Used in a novel way to non-intrusively listen in on a group of well-experienced e-Government individuals, the Knowledge Café has provided a technique for critiquing a theoretical conjecture which has lead to its refinement. This paper describes the steps involved in this refinement process, as well as the how the transcript of the final plenary session was treated. The previous and the revised theoretical conjectures are provided and the differences addressed. The application of the Knowledge Cafés technique described here is that the major beneficiaries of this event were not the participants but the facilitators. However, participants also benefited, but the transcript of the final plenary session of the Knowledge Café was coded, analysed and used to enhance the theoretical conjecture resulting from the original research. The critical success factors for the use of a Knowledge Café in this way include finding a group of well-informed participants, the facilitator/s conducting a well-focused briefing and employing a well-experienced facilitator to manage the event. In this research, the resulting refined theoretical conjecture is a more satisfactory understanding of how e-Government operates within its organisational setting.

Keywords: Knowledge Cafés, Theory refinement, Theoretical conjectures, Research Methodology, Hermeneutics

1. Introduction

There are several data gathering approaches that are used in qualitative research (Dey, 2003; Given, 2008). The research question largely informs the type of data that would be required to answer the research question. It is not uncommon for qualitative research to use focus groups or interviews. The purpose of this research is to explore the use of a Knowledge Café in the qualitative research journey. Knowledge Cafés are widely used in a range of settings where there is a need to encourage individuals to share their knowledge and experiences. These settings are often organisational where management believes that there is an inadequate professional discourse about important issues among the organisation's people. To this end, a Knowledge Café has been used as a first step in creating communities of interest. However, it is not only organisations who wish to engage in professional discourse or share knowledge and experience. This type of exchange of ideas, knowledge and experience is often what is required by academic researchers, especially those following a qualitative research tradition. It may be argued that the traditional qualitative approaches of employing focus groups or interviews is an appropriate, well-established method of acquiring data. However, focus groups and interviews require several iterations. There are several commonalities between focus groups, interviews and a Knowledge Café. Figure 1, provides a summary of these commonalities.
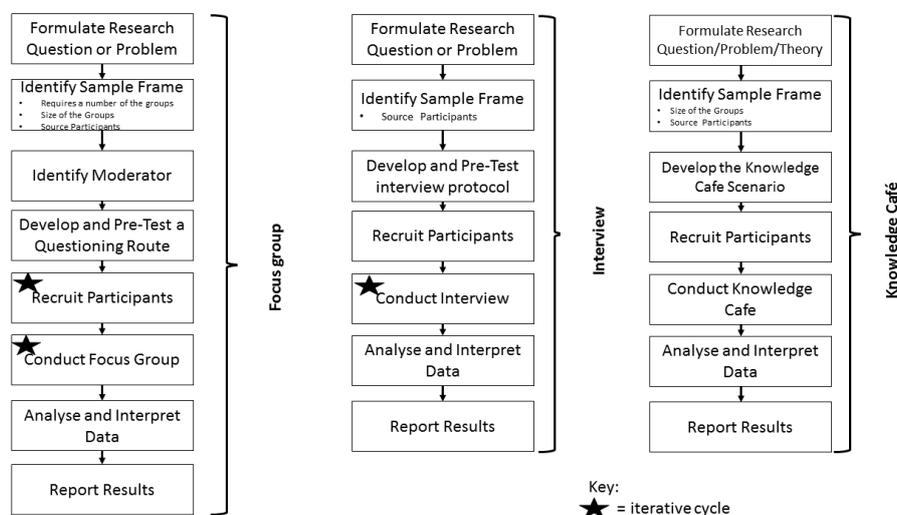
Figure 1: Different Data Collection Techniques (adapted from Given (2008); Hevner and Chatterjee (2010))

All of the data collection techniques are driven by a research problem. However, among academic researchers, it is not well understood how to use the Knowledge Café in their research. Few researchers have used the Knowledge Café in their research (Brijlall, 2015; Gronau, 2002). In fact, Gurteen (N/D); Lefika and Mearns (2015); Remenyi (2004) have pointed out that although the Knowledge Café is a useful technique for researchers, it has largely been ignored in the academic literature. It is the aim of this paper to help fill this gap.

This paper describes the use of a Knowledge Café (Gurteen, N/D; Lefika & Mearns, 2015; Remenyi, 2004) to refine a theoretical conjecture developed during a research degree (Singh, 2014) in order to improve the technologies i.e. e-Government's utility to a number of its stakeholders.

Having been first used in the 1990s, the Knowledge Café is a well-established technique for sharing knowledge (Brown & Isaacs, 2005; Gurteen, N/D)within a group of mutually motivated people who have a common interest about which they are prepared to share their views. It is often used as a learning technique for the participants, as the exchange of views arising during the Knowledge Café can provide new insights into the issues being discussed.

The use of the Knowledge Café described here shows how it can both add to the knowledge of the participants as well as offer interesting insights to researchers in order to refine a theoretical conjecture developed as a result of their research.

2.   Theoretical conjectures

One of the most difficult challenges facing those who create knowledge is the development of new theoretical insights. Theory development is one of the most creative aspects of academic research and as such it is one with which researchers often struggle (Handfield & Melnyk, 1998; Shoemaker, Tankard & Lasorsa, 2004). Moving from data to research findings is often not a major challenge, but, for many individuals, the step between research findings and a viable theoretical conjecture is often or at least sometimes, problematic. There are a number of reasons for this, including the fact that academics are sometimes not well acquainted with the nature of theory and how theory relates to the data or the finding which will have been produced during the course of the research.

Once a theoretical conjecture has been postulated it is appropriate that it be exposed to critical review in order to enquire into its verisimilitude and refine it (Kohlbacher, 2005; Remenyi, Money, Price, & Bannister, 2002). Critical reviews are at the heart of academe, and any academic thinking will inevitably benefit from constructive critical discussion. The required critical review is sometimes obtained by conducting more interviews or by assembling a focus group. However, as described in this paper, it is also possible to do this through the use of a Knowledge Café.

3.   Research Context

3.1   Setting the Research Scene

South African e-Government applications face several context-specific challenges. Moodley (2005) claims that exclusive emphasis is being placed on ICT projects, "at the expense of careful analysis and consideration of the broader economic, social, and political elements that interact to improve the lives of individuals". Moodley (2005) and Singh (2010) further claim that there are several gaps in policy, gaps in understanding of ICT, gaps in understanding social process, bureaucratic incompetence, and gaps in understanding "independent human agency ". In this context, independent human agency refers to people's spontaneous reactions to events. It is a challenge to understand these reactions. There are frequent yearly public commitments by successive South African presidents to provide e-Government services in their state of the nation addresses (State of the Nation Addresses 2010, 2011, 2012), but these commitments are only partially realized as government is constrained by limited resources and appropriate skills. It is argued that the government promises e-Government services because some citizens are engaged in violent, occasionally fatal protests demanding improved service delivery (Alexander, 2010). These services delivery protests are interpreted as citizens wanting more effective and efficient service delivery, despite the promises of e-Government. Within these settings, 36 informants within the South African Public Service Sector who had direct involvement with e-Government policy development or project implementation and evaluation were interviewed. These were senior state administrators and their profiles are shown in Table 1.

Table 1: The Profile of the Informants

Level	Gender		Title			Total Participants	
	Male	**Female**	**Director**	**Specialist Senior Manager**	**Senior Manager**	**Count**	**Total**
National Government	11	5	8	3	5	16	36
Provincial Government	3	0	0	1	2	3	
Local Government	3	0	0	1	2	3	
Government Agencies	9	5	2	4	8	14	

3.2 The research behind the theoretical conjecture

The Knowledge Café discussed here was conducted at the end of a doctoral study into how the delivery of e-Government applications could be made more effective (Singh, 2014). The study had consisted of the following steps: After the literature review, a list of key causes of problems in e-Government implementation was developed. This list was used as the centre pieces of a Delphi Study to verify the importance of the issues. This was followed by a number of interviews with individuals employed in public services. The resulting transcripts produced as part of the doctoral research were coded and captured using Atlas-ti. Reports including conceptual maps were produced and modeled. The original research question was answered and eventually a theoretical conjecture was presented.

4. What is a Knowledge Café and how can it contribute to research?

A Knowledge Café is traditionally defined as a means of bringing together a group of people who have a common interest and who will be able to benefit and increase their knowledge by talking together and listening to each other on the subject of issues related to, and surrounding, that common interest (Gurteen, N/D; Remenyi, 2004). A Knowledge Café is an effective way of both sharing knowledge, but also of testing ideas through active conversation.

Talking and reflecting on the concepts represents a type of dialectic experience for those involved. But it is more than this. A Knowledge Café is also a way in which a researcher can non-intrusively listen to a significant number of knowledgeable individuals when they are discussing a topic which is central of importance to the research. It is in this way that the Knowledge Café has been used here.

4.1 The form of the Knowledge Café

There are a number of different formats for operating a Knowledge Café and the particular form a Knowledge Café is used depends upon the objectives of the facilitator (Brown, & Isaacs, 2005; Gurteen, N/D). Normally a Knowledge Café will run for about two hours but sometimes an event can be spread over a whole day. Sometimes a Knowledge Café can result in a formal report which will later be published. Groups participating in a Knowledge Café will sometimes nominate a chairperson while others will not bother with this degree of formality. The Knowledge Café described here takes a simple form and is conducted over a two hour period with an informal reporting and discussion plenary session at the end.

In general, the Knowledge Cafés has several steps (Remenyi, 2004). These steps are outlined in Figure 2.

In the first place, the research question/problem or theory must be developed. Then a significantly sized group of knowledgeable individuals are assembled who have an interest in that particular issue. This event works well when the number of participants is 12 or more but less than 40. The Knowledge Café described here consisted of 28 knowledgeable informants. Fifty informants had been invited to participate and 36 had accepted the invitation, and 28 arrived on the day.

The first activity is the general briefing which is given to the whole or plenary group and explains the specific objective of the event and describes how it will be conducted. A thorough briefing is critical, as it sets specific objectives which will determine the trajectory of the subsequent discussion and, therefore, offer some focus to the possible ideas which might arise during of the event. If inappropriately briefed, the Knowledge Café can become a talking shop with little opportunity for a valuable outcome in terms of either critique of what has been done, or suggestions for future development of the research.
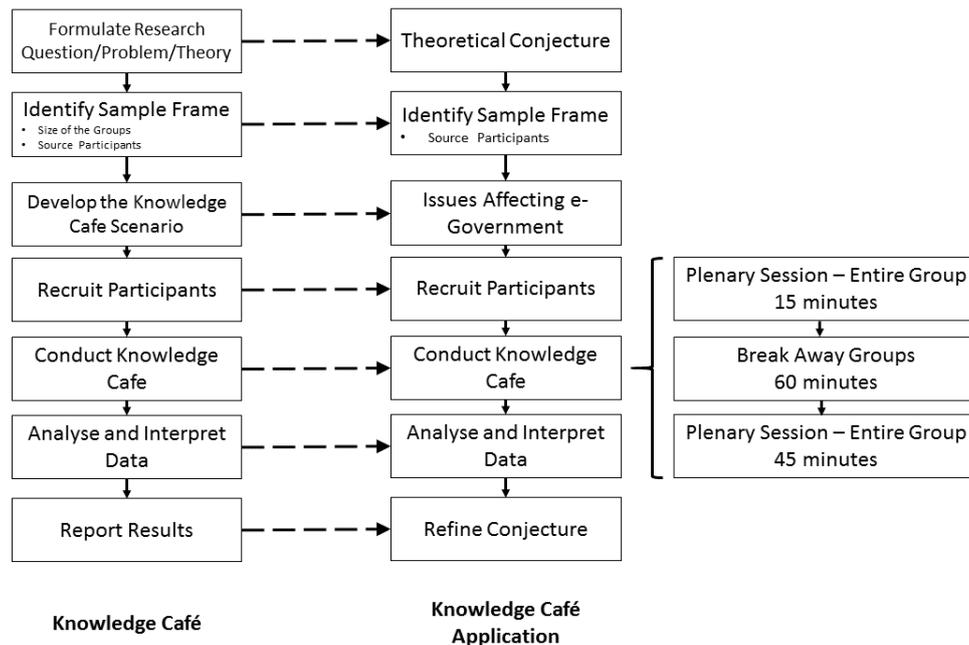
Figure 2: Application of the Knowledge Café

Then the participants are invited to break-up into smaller groups to explore the topic of the Knowledge Café. The reason why smaller groups are used is that some individuals are nervous about speaking in front of large numbers of people. Also, in a small group everyone has a better chance of having his or her ideas heard and discussed. It is not a prerequisite that everyone should speak who participates in a Knowledge Café, but if anyone remains silent throughout the whole process then it is probable that he or she has lost an interesting opportunity to air their experience and knowledge.

There is an important philosophical underpinning to the conversations which are held in these small groups and that it is more important to listen and understand other people's point of view than to develop a stunning argument. This helps to ensure that the criticism which arises out of these sessions tends to be reflective and therefore often constructive.

After a period, usually about 60 minutes, discussion in the small groups, all the participants are invited back into a plenary session. There are no formal reporting requirements from the small groups but the participants are asked if they would like to share with the plenary group any new insights they have obtained from their discussions within the small groups. An opening question to this effect is usually enough to spark a lively discussion or exchange of ideas with the whole group. Sometimes if a small group has nominated a chairperson or a spokesperson for their group he or she will speak on the group's behalf, but often it is simply a matter of anyone who wants to contribute speaking up.

It is the dialectic processes behind the exchange of ideas that the Knowledge Café seeks to engage, so that the thinking of the participants may be refined.

5. The use of the Knowledge Café in the research project

5.1 Preparing for the research

Using the Knowledge Café in a different way than the normal described method above meant that the planning for it had to be detailed and meticulous. It would have been easy for this event to have degenerated into a discussion group without focus which is not always undesirable when the Knowledge Café is being used in an organisational setting where the main objective is knowledge sharing.

For the research described here, it was decided to hold a two-hour Knowledge Café which was planned to attract at least 20 experienced participants. An invitation to the Knowledge Café together with a detailed note on how an event like this functions was prepared. The Knowledge Café was electronically advertised using four

special interest e-mail mail groups, these e-mail mail groups were managed by University of the Witwatersrand Busines School, University of the Witwatersrand's Link Centre, University of South Africa's School of Computing and the University of South Africa's Alumni group. The individuals that accepted the invitation to participate were sent a document explaining that the Chatham House Rule would apply. The Chatham House Rule is a convention whereby individuals who attend a meeting or a discussion may use the information obtained during that meeting/discussion, but they should not disclose the name of any individuals from whom such information was obtained. The Ethics Committee at the university was informed and an ethics protocol was granted. An appropriate venue with breakaway rooms was found.

The invitations were dispatched two weeks before the event. Seventy-five civil servants and other interested parties were invited to the Knowledge Café. A total of 36 acceptances to attend were received. Of the 36 people who accepted the invitation, 28 people arrived on the morning to participate in the event. The participants included executives and senior managers in the public sector as well as representatives of service providers to government departments, and a small number of academics who had research interests in this field.

5.2   The briefing of the plenary group

On arrival, the participants were addressed on the nature and purpose of the Knowledge Café and were invited to sign a letter of consent. The letter of consent included the usual clauses required by the university ethics committee. The participants were reminded that the Chatham House Rule would apply. The research which had lead to the theoretical conjecture was briefly described and the theoretical conjecture itself was explained. The group was informed that the purpose of the Knowledge Café was to expose the research findings to their critical comments, through the conversations with each other, regarding the verisimilitude of the theoretical conjecture. As the Chatham House Rule applied they were encouraged to be as open and frank as possible. This briefing took 15 minutes.

5.3   The theoretical conjecture

For the purposes of this paper, it is assumed that readers will be familiar with the various approaches to theory development including, reflection, modeling, seeking connections with the literature etc (Bazeley, 2013; Saunders, Lewis, & Thornhill, 2015). These were all applied in the study described here. The result was that the following theoretical conjecture concerning how e-Government applications implemented was developed:

> *e-Government applications are driven by a need to modernise government processes in the expectation of using scarce resources with improved efficiency. These applications are implemented in an environment that is not conducive to changes in processes and practices. The pressure to modernise can lead to non-optimal systems development decisions being made and practices implemented. The decision to modernise is made with little attention to the appropriate strategies to employ, key stakeholders who are able to deal with and manage the process, and how the process will be evaluated. The resulting application automates the department tasks but does not improve their effectiveness. These automate systems expose gaps in the department processes.*

On its own, this theoretical conjecture represented a step forward in understanding the e-Government phenomenon but it was felt that it would benefit from discussions with a new group of individuals who had appropriate knowledge and experience of the subject. The researchers had considered using extra interviews and focus groups but it was considered more interesting to use a Knowledge Café on an experimental basis. It was realised that this Knowledge Café would not be applied in the normal way that Knowledge Cafés are usually used.

5.4   The small working groups

The plenary group of 28 was then invited to break-up into smaller groups of between 4 and 6 people and to discuss the theoretical conjecture. They were allowed to self-select the people with whom they wished to converse. However, they were advised by the facilitators that they would obtain most from the experience of the Knowledge Café if they chose to discuss the topic with individuals with whom they were not well acquainted and this advice they accepted. The small groups so formed were then directed to break-away rooms. Sixty minutes were allocated for this small group conversation.

At the end of the small group discussion, the plenary group reassembled and a 45 minute discussion ensued. The timings described here of 60 minutes and 45 minutes are arbitrary but these numbers are considered practical minimums required for a reasonable discussion.

A Knowledge Café often generates a high degree of animated discussion, and so it was with this event. Once the plenary group was reassembled the different small groups reported on the issues they had felt more relevant to the enquiry under discussion. It was clear that there was much to say about this subject.

The facilitators allowed the group to pursue the discussion with minor interventions which mostly involved seeking the opinions of some individuals who were still relatively shy about speaking out. The facilitators took notes of the main points raised which were subsequently transcribed for the purpose of analysis into a transcript.

5.5   The plenary discussion

The 45 minute discussion which was recorded with the permission of the participants resulted in 10 pages of transcripts which captured the main issues raised by the plenary group. These issues were debated with, in some cases, a number of different perspectives being expressed. The facilitators, who in this case were the researcher and his supervisor, remained largely outside of the main discussion which of course meant that the comments made were not always as focused as perhaps they could have been.

5.6   The transcript of the plenary discussion

A transcript of the main discussion contained a considerable amount of repetition and thus, it was necessary to summarise it, in order to establish the main learning points from the discussion. The summary of the transcript is shown in Appendix A.

Appendix A demonstrates that the discussion ranged widely, which evidences the fact that the topic of e-Government is complex and that there are a number of different perspectives on this topic. This topic touches on a number of different aspects of management and organisational control and the transcript could be further summarised in a number of different ways. Given the use of the Knowledge Café as a research tool, the emphasis here was to look for ideas which could be used in order to facilitate the improvement of the theoretical conjecture.

To assist the understanding of the transcript it was decided to extract a limited number of key issues from this summary transcript using a hermeneutic approach (Freeman, 2008). The hermeneutic approach involved reading the transcript several times and in so doing acquiring an understanding of it as a whole, and of its parts separately. Thus, the summary was reviewed several times and the issues were thoroughly discussed. Figure 3 contains the 7 issues, with some explanation, which were extracted from the transcript summary.

Key issues extracted from the summary of the conversation among the plenary group
1.   Many of the issues related to e-Government success are management ones. There does not appear to be a clear understanding of who are the primary custodians of e-Government systems. Citizens' interaction needs focused attention. The Public Service has not embraced a culture of ICT facilitated modernisation and, as a result, civil servants are often under skilled in terms of ICT potential and implementation.
2.   There can be confusion within the public service as to who the real leaders are. Are Government Minister the real bosses or are civil servants ministers. Maybe both are? Can a system run with two bosses who may not always see the issues in the same way? Senior leadership is not accountable for the success or failure of e-Government systems.
3.   e-Governments systems are service delivery systems and should have no party political dimension.
4.   e-Government needs to be managed in terms of a benefit realisation scheme. A boarder understanding of the potential benefits across most aspects of government is long overdue. This actually means a major rethink of the technology required.

Key issues extracted from the summary of the conversation among the plenary group
5. There can be major problems of communications within units of the public services and knowledge sharing is not often a top priority. There should be a greater focus on making sure that success is celebrated and that the lessons available from successful project are known to the organisation.
6. It is important to consider end-user focus groups as a going strategy to engage with the users of e-Government systems.
7. Stove piping (silos) is still a significant problem within the public sector. Civil servant should attempt to pool resources and cross-functional systems in order to improve the efficiency of service delivery.

Figure 3: Keys issues which were identified from the plenary transcript

Reading the theoretical conjecture and the list of key issues it is possible to recognise that there is a degree of congruency between the original research findings and the opinions of those who participated in the Knowledge Café. However, it is also relatively clear from both listening to the final plenary session and reading the transcript of the Knowledge Café that the theoretical conjecture could be improved with the knowledge obtained from this event.

5.7 Issues to be incorporated in any refinement exercise

The first point which the key issues address is the fact that the success of e-Government is not a matter of the technology per se, but rather how it is managed, and it emphasises that a modernisation ethos has not been as fully embraced by the public sector as it is often purported to have been. This is a fundamental issue which impacts on any change initiative. But in the e-Government environment, this issue is further complicated by the confusion regarding the ambiguous roles of government ministers vis-à-vis civil servants. Who is actually in control of the e-Government agenda? On top of this concern was shown for the possibility that e-Government projects might become influenced by party political considerations.

The issue of benefit realisations, was one which received strong emphasis and of course, this is strongly linked to the question of communication, which was also raised. The concern for focus groups may also be seen as connecting to this issue.

5.8 Refining the theoretical conjecture

In the light of these comments obtained from the Knowledge Café and as a result of the further discourse which they triggered, it was decided to refine the theoretical conjecture and to restate it as follows.

e-Government is particularly sensitive to issues related to management and leadership of which benefit realisation and communications within and with outsiders are crucial.
Applications driven by a need to modernise government processes in the expectation of using scarce resources with improved efficiency are important. These applications are implemented in an environment that is not often conducive to changes in processes and practices due to long stove piping (silo) arrangements. The pressure to modernise can lead to non-optimal systems development decisions being made and practices implemented. The decision to modernise is made with little attention to benefit realisation and how to manage the process, and how the process will be evaluated.

This is more in line with the opinions expressed during the Knowledge Café. Of course, this new conjecture cannot in any sense be considered the finished product of the research into e-Government. It is simply another step forward toward a fuller understanding of how e-Government functions and how it could be improved by applying the ideas and concepts produced by academic researchers. There is, in fact, no final point in our understanding of managing organisations as they continue to evolve as fast as they can be researched.

6. Discussion

From the above, it will be seen that a Knowledge Café has a number of similarities to a focus group and interviews, in that it may be used as an opportunity for the researcher to acquire an understanding of a situation based on the experiences of a group of knowledge informants. In Table 2, an analysis of focus groups, interviews and Knowledge Café's is provided. The following criteria were used in the analysis:

- Basic elements of the approach,
- Selected characteristics,
- Special requirements,
- Management issues, and
- People issues.

This analysis is important because it highlights some of the advantages of using a Knowledge Café. Some of the advantages of using a Knowledge Café are:

- Basic elements of the approach – A Knowledge Café is a once-off, two-hour scripted event driven by a facilitator who does not unduly influence the conversation.
- Selected characteristics – A Knowledge Café is flexible enough to explore issues but still protect the rigor of the approach.
- Special requirements – The bare minimum of equipment is required, most of which the researcher can carry and setup and the venue does not require specialised equipment.
- Management issues - The researcher can manage the process, equipment, and venue and the cost is contained as this is a once off event.
- People issues – There is a reduced likelihood of there being a power-trust issue with the informants and the researcher because the researcher is an observer to the conversations. A further boon to the informants is that they have the opportunity to network and develop communities of practice with each other.

It is important to note that a Knowledge Café differs, however, in that the discussion which takes place among the participants is less directed than it would normally be in a focus group and that by the use of both the small groups and the plenary sessions a larger number of people can take part in a Knowledge Café. However, Knowledge Cafés, have not originated from within the research community and have not normally been used in this way.

Table 2: A Comparison of Focus Groups, Interviews and Knowledge Café (Synthesised from Edmunds (2000); Given (2008); Harper, Jones and Marcus (2013); Hevner, and Chatterjee (2010); Mills, Durepos and Wiebe (2009); Somekh, and Lewin (2005))

Category	Element	Focus Group	Interview	Knowledge Café
Basic elements	Number of Participants	6-12	12-40	12 - 40
	Format	Highly scripted questions route	Highly scripted questions route	Scripted scenario route
	Time	Usually 2 to 3 hours	Usually 1 to 3 hours	2 hours
	Frequency	Multiple focus groups are recommended	context specific	Once off event
	Driven by the knowledge moderator	Yes	Yes	Partially
Selected Characteristics	Exploratory method	Not recommended but possible	Not recommended but possible	Recommended
	Confirmatory method	Recommended	Possible	Recommended
	Rigour in data collection	Fear of possible contamination of the interview process	Fear of possible contamination of the interview process	Lower fear of possible contamination of the interview process
	Direct Interaction with Informants	• Research can clarify issues • Research can probe responses	• Research can clarify issues • Research can probe responses	• Research can clarify issues • Research can probe responses
	Large Amounts of Rich Data	Yes	Yes	Manage amount of rich data
	Building on Other Informants comments/problems	Yes	No	Yes
	Flexibility	allow for an open format	Restructured to the context	allow for an open format
Special Requirements	Requires specialised equipment	• Digital voice recorder • May require a projector • May require a video recorder • May require a laptop • May require white board and marker	• Digital voice recorder • Pen and paper for notes	• Digital voice recorder • May require a projector • May require a laptop
	The venue	Requires a specific setting	Flexible	Flexible, as long as informants can move around and have a place to sit
Management issues	Managing the process	May be difficult for one person	The researcher is in control	One person can manage this process
	Managing the equipment	May be difficult for one person	The researcher can manage the equipment	The researcher can manage the equipment
	Managing the venue	May be difficult for one person to arrange the setup	Highly dependent on the informants	The researcher can manage the venue setup
	Management of Costs	There are several budgetary considerations: • Number of focus groups to be conducted • Travel costs • Venue cost • Transcription costs	Research may need to travel to different research sites	Limited costs as this is a once of event.
People Issues	Power	Research may be viewed as being all knowledgeable	Research may be viewed as being all knowledgeable	Less likelihood of the research being viewed as being all knowledgeable
	Trust	Research may not be trusted by the group	Research may not be trusted by the informant	Less likelihood of trust because the research is in an observer role
	Networking opportunity	Limited networking opportunities for informants	No networking opportunities for informants	Greater networking opportunities for informants and the possibly to start communities of practice

7.   Conclusion and summary

Although the application of the Knowledge Cafés as described here has been one of critique it may actually be used to directly support academic research. It may be incorporated into the structure of a researcher degree and used at the outset to enhance the researcher's understanding of the research question or to obtain suggestions to enhance other aspects of the research.

The success of a Knowledge Café as described here is contingent on:

- Being able to attract a number of appropriately knowledgeable informants to participate in the event;
- Having access to a suitable facility i.e. a plenary room accompanied by breakaway rooms or a plenary room that facilitates smaller groups;
- Having an experienced facilitator who is able to manage such an event.

The experimental use of the Knowledge Café described here provided the researchers with an opportunity to make some material refinements to the original theoretical conjecture. This was expected and was the main reason for conducting the Knowledge Café. The Knowledge Café provided additional insights which were necessary to be accommodated in the theory in order to provide it with a more satisfactory interface with practitioners and allowed it to operate more effectively. In effect these additions to the theory are *sine qua nons* for using the theory with the everyday practicalities of e-Government. However, there was no attempt at any type of hypothesis testing.

The quality of the output of the Knowledge Café is highly dependent on the knowledge and the experience of the participants. It also depended on the skill of the facilitators and their ability to appropriately brief the plenary group before the event breaks up into small groups. To be successful the facilitator or facilitators have to ensure that a thorough transcript of the plenary session is obtained. This has to be carefully summarised before it can be further used in the research. The analysis of the transcript and or its summary has to be performed either using content analysis or a hermeneutic approach. Finally, the researcher has to be able to use the findings to pin point how the theory maybe refined and then perform this task.

None of these are trivial tasks and it requires a considerable level of sophistication with academic research to be able to accomplish this. But as in the context described above it can enable the research output to be significantly improved.

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Appendix A: Summary of the transcript of the plenary group meeting

Success is an ill-defined concept, especially within the public sector. Work needs to be done on defining what success means before investing in and engaging with technology. If this was done correctly it could lead to some sort of benefit realisation activity. This would become the main direction of planning for the use of the technology. The Management of public sector or public sector investment to ensure the delivery of benefits is often poor. Benefits do not materialise by themselves. A programme of active benefit realisation would be helpful in achieving the goals set. This needs to be done by people with a personal commitment to achieving these goals. Benefits do not arise passively. Although there are some technology issues, the technology is not always as stable as it is made out to be especially by vendors, and with which there are challenges many of the issues related to e-Government success are management ones. There can be major problems of communications within units of the public services and knowledge sharing is not often a top priority. There should be a greater focus on making sure that success is celebrated and that the lessons available from a successful project are known to the organisation. If one scans the range of the e-Government applications which have been successfully implemented to date current systems are often too focused on the effective collection of revenue from citizens. This approach, although of the highest priority is in fact quite limiting. A boarder understanding of the potential benefits across most aspects of government is long overdue. This actually means a major rethink of the technology required. Is it possible to talk about e-Government without being cognizant of the political process. e-Government systems are service deliver systems and should have no vested political dimension. But is this always the case? There are still many issues with regard to prioritising investment in the public sector. Current e-Government systems are effective at least to some extent in respect of information dissemination but not at interaction with citizens. There does not appear to be a clear understanding of who are the primary custodians of e-Government systems. The notion of systems owners which is sometimes used in the private sector is alien to the public sector. When it comes to the issue of purchasing systems, there is consultation with the vendor and government. However after the sale of the system, there is little consultation between the vendor and government. This is a large gap between the thinking behind the use of e-Government and those who actually use it at the end of the day. There is inadequate engagement between the citizen and those who conceptualise, plan and implement e-Government systems. It is important to consider end-user focus groups as a going strategy to engage with the users of e-Government systems. For citizens to improve the dysfunctional processes and systems, citizens will have to make their view known. The willingness to complain needs to be seen within its cultural context. For citizens to accept e-Government systems, citizens must be literate and computer literate. There are considerable differences of opinion as to how computer literate the population is actually. There is a level of despondency within the civil service resulting in civil servant not taking an active interest in ensuring that the systems and process

function optimally. The Public Service has not embraced a culture of ICT facilitated modernisation and, as a result, civil servants are often under skilled in terms of ICT potential and implementation. There can be confusion within the public service as to who the real leaders are. Are Government Minister the real bosses or are civil servants. Maybe both are? Can a system run with two bosses who may not always see the issues in the same way? Senior leadership is not accountable for the success or failure of e-Government systems. Stove piping (silos) is still a significant problem within the public sector. Civil servant should attempt to pool resources and cross-functional systems. Reactionary change propels the development of some e-Government systems. The public sector is actually many different worlds, some of which have little contact with one another. Due to this fragmented nature of government, there has not been a consistent approach to business cases for e-Government. e-Government systems should be functionally separated from the political system/drivers. For e-Government systems to be effective, it is required that there is a stable bureaucracy present within government.